

upsell>

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APP

available for:



Secure Mobile Voice and Messaging System



# Mobile Communication

Challenges

# Vulnerabilities

“ ... your data isn't just available to nation states: it's also potentially available to that goofball neighbor who bought an IMSI-catcher off the Internet.

Or to your business competitor. Or even to that one girl who finally got GnuRadio to compile.”

Matthew Green, On Cellular Encryption, [blog.cryptographyengineering.com](http://blog.cryptographyengineering.com)

## HACKER SPOOFS CELL PHONE TOWER TO INTERCEPT CALLS



A directional antenna is set up for a demonstration by security researcher Chris Paget, center. (Photo: Dave Bullock)

### How to Build Your Own Rogue GSM BTS for Fun and Profit

Posted on 2016-03-31

412 366 611

The last week I've been visiting my friend and colleague [Ziggy](#) in Tel Aviv which gave me something I've been waiting for almost a year, a brand new [BladeRF x40](#), a low-cost USB 3.0 Software Defined Radio working in full-duplex, meaning that it can transmit and receive at the same time ( while for instance the HackRF is only half-duplex ).

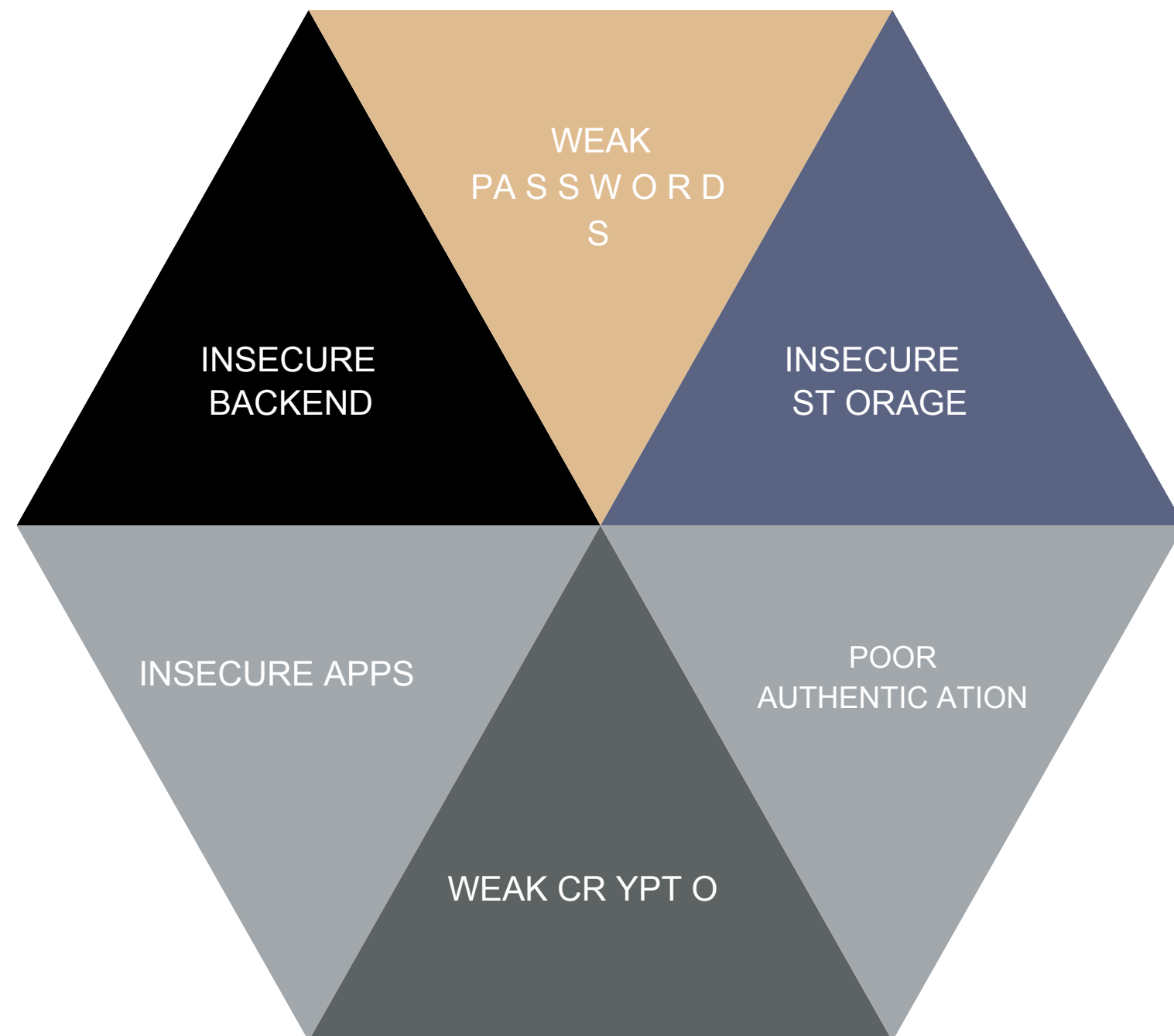
In this blog post I'm going to explain how to create a portable GSM BTS which can be used either to create a private ( and vendor free! ) GSM network or for **GSM active tapping/interception/hijacking** ... yes, with some (relatively) cheap electronic equipment you can basically build something very similar to what the governments are using from years to perform GSM interception.

I'm not writing this post to help script kiddies breaking the law, my point is that GSM is broken by design and it's about time vendors do something about it considering how much we're paying for their services.



# More Vulnerabilities

*It is not only about the communication security ...*



## WEAK P A S S W O R D S

Standard third party apps do not employ additional password protection and let user access to sensitive data via potentially weak passwords.

## INSECURE   S T O R A G E

Securing data at rest on the mobile application is seldom utilized and hence allows attackers to have access to data easily once the mobile device is compromised

## POOR A U T H E N T I C A T I O N

Usually in mobile communications mutual authentication is missing and opens up doors for serious vulnerabilities.

## WEAK C R Y P T O

Intentional or unintentional use of weak cryptographic primitives stays at the heart of the well-known attack methods in mobile communications.

## INSECURE   A P P S

Insecurely developed apps cause major threats against information leakage and data compromise.

## INSECURE   B A C K E N D

Allowing clear sensitive data, either real or metadata, in the backend components, has been one of the major reasons for data leakage in the recent attacks.

# Threats

*It is not only the intelligence agencies; anyone who can benefit from the existing vulnerabilities is a threat.*

## Global surveillance disclosures (2013–present)

From Wikipedia, the free encyclopedia

*"Global surveillance disclosures" redirects here. For disclosures published before those of Edward Snowden, see [Global surveillance disclosures \(1970–2013\)](#).*

Ongoing news reports in the international media have revealed operational details about the United States [National Security Agency](#) (NSA) and its international partners' [global surveillance](#)<sup>[1]</sup> of foreign nationals and US citizens. The reports mostly emanate from a cache of [top secret](#) documents [leaked](#) by ex-NSA contractor [Edward Snowden](#), which he obtained whilst working for [Booz Allen Hamilton](#), one of the largest contractors for defense and intelligence in the United States.<sup>[2]</sup> In addition to a trove of US federal documents, Snowden's cache reportedly contains thousands of Australian, British and Canadian intelligence files that he had accessed via the exclusive "Five Eyes" network. In June 2013, the first of Snowden's documents were published simultaneously by *The Washington Post* and *The Guardian*, attracting considerable public attention.<sup>[3]</sup> The disclosure continued throughout 2013,

🕒 11.02.2017, 00:01

## Faux e-banking pour un million



notably *The New York Times* (United States), the [Canadian Broadcasting Corporation](#), the [Australian Broadcasting Corporation](#) (ABC), *De Persgroep* (the Netherlands), *Dagbladet* (Norway), *El País* (Spain), and *Sveriges Television* (Sweden).<sup>[4]</sup>

Community in their efforts to implement [global surveillance](#). For example, *Der Spiegel* revealed how the [National Defence Radio Establishment](#) (FRA) provided the NSA with data from its [signals intelligence](#) agencies involved in the practice of [global surveillance](#) include those in Australia (ASD), Britain

Part of a series on

**Global surveillance**

Disclosures

Origins · Pre-2013 · 2013–present · Reactions

Systems

XKeyscore · PRISM · ECHELON · Carnivore ·

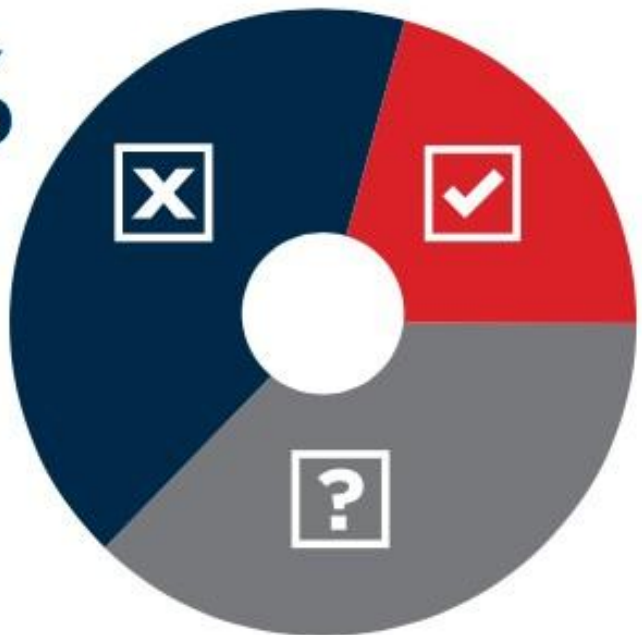
DISSEMINATION · STONEGHOST · TAMER ·



**Q: Have mobile devices been involved in security breaches in your organization in the past?**



42%  
NO



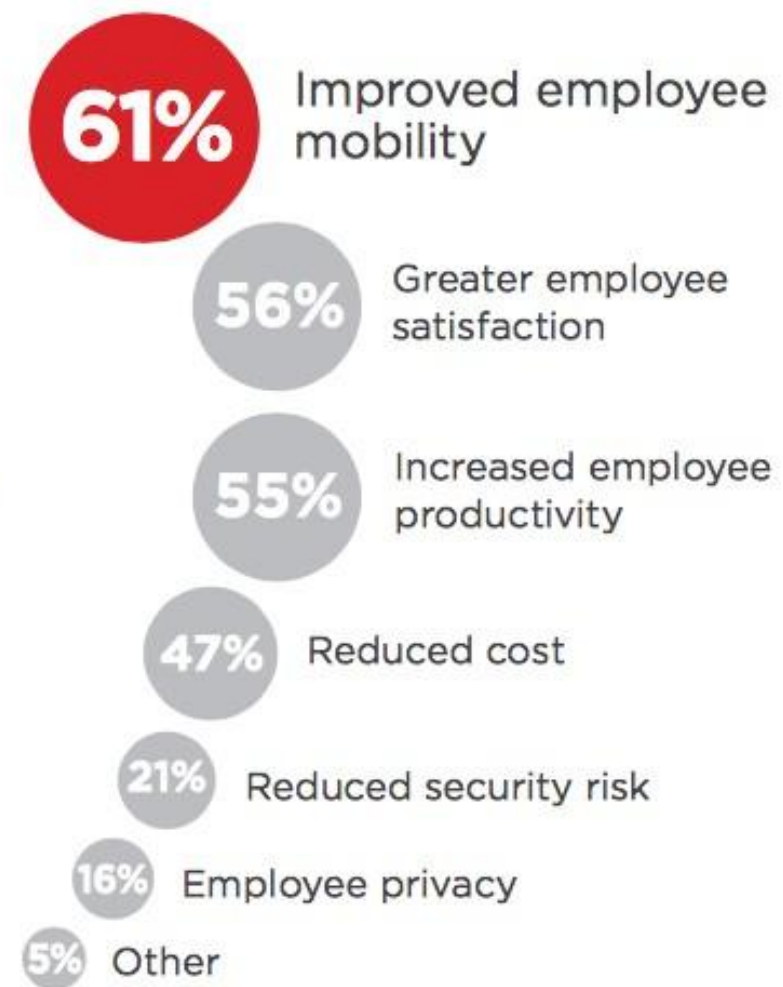
21%  
YES

37%  
Not Sure

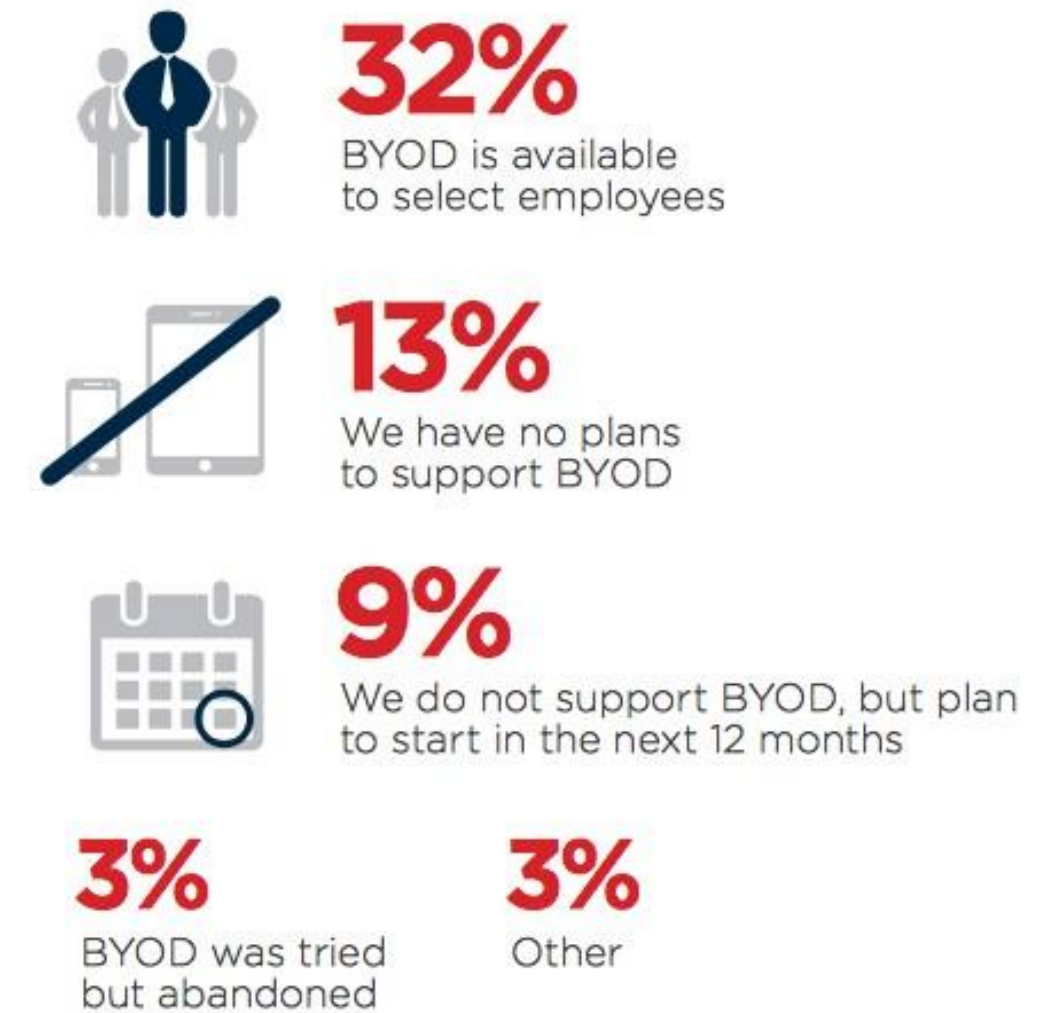
# Trends

*More and more sensitive world related information is exchanged through mobile devices*

**Q: What are the main drivers and benefits of BYOD for your company?**



**Q: What stage of BYOD adoption has been reached by your company?**



Responses do not add up to 100% because survey participants selected multiple choices.

# Risk Analysis



## VULNERABILITIES

Standard mobile communication systems are inherently insecure and there are very well-known vulnerabilities.



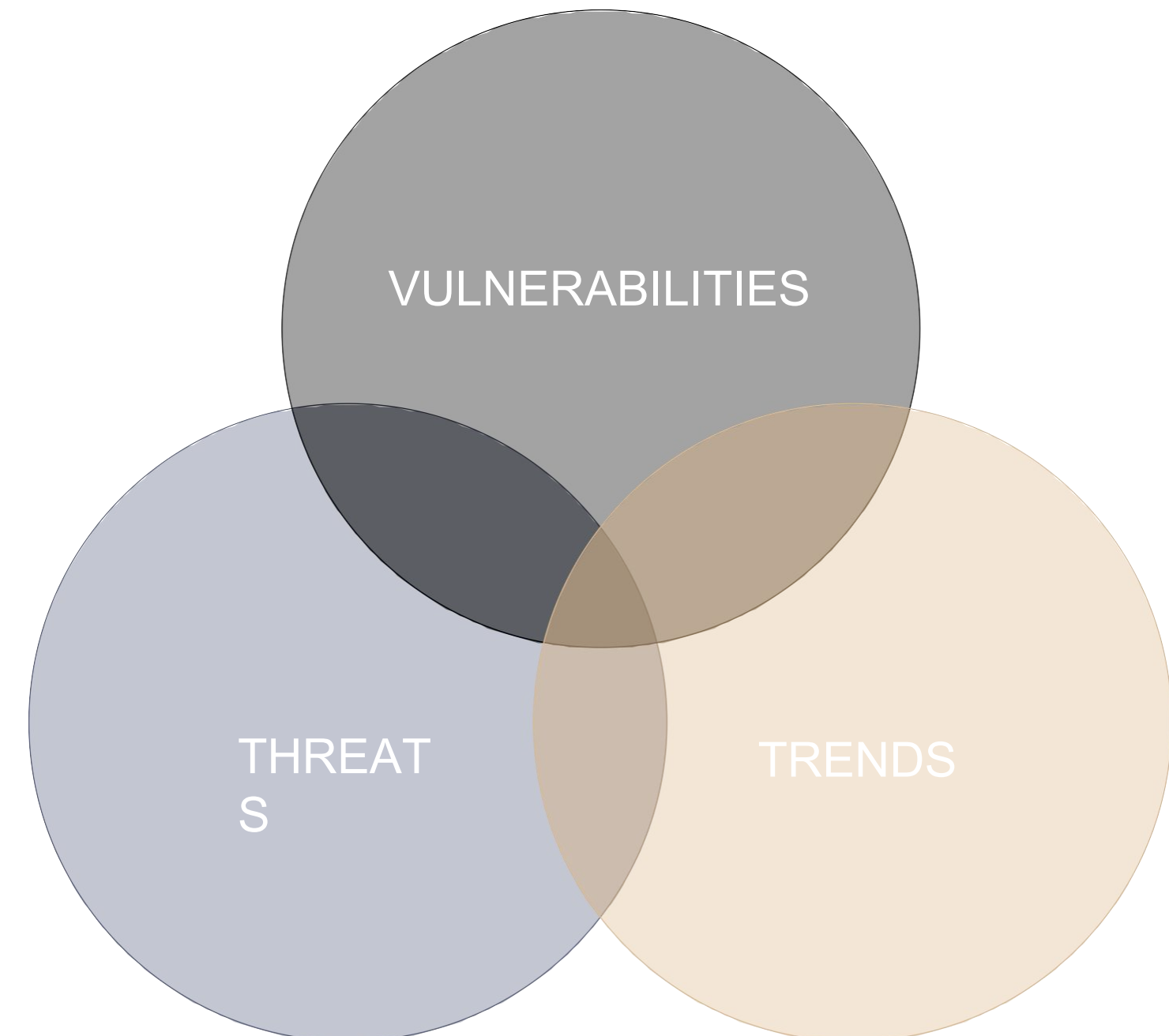
## THREATS

There are various well-established threats who have already made and can still make use of the existing mobile vulnerabilities.



## TRENDS

Considering the effectiveness of the use of mobile devices at work, more and more sensitive information will be exchanged through mobile devices.



The risk of exposing sensitive organizational information is high!



# Our Product

# OUR PRODUCT

Secure mobile communication in closed circles



## Secure

Carefully designed to allow for secure communication among closed circles using state-of-the-art cryptographic methods.



## Mobile

Aims to provide a secure solution for mobile communications. Available on the most widely used mobile OS: iOS & Android.



## Communication

Provides user-friendly solutions for the most widely used mobile communication methods for organizations: voice, messaging and file sharing.

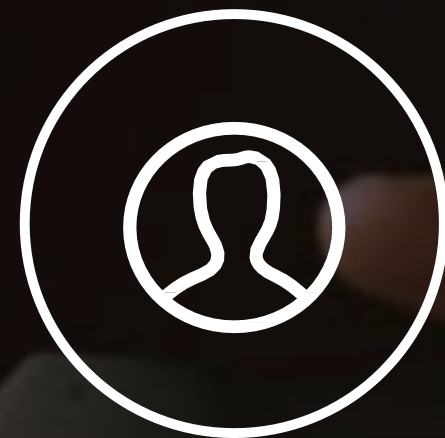
# OUR PRODUCT

Major Features



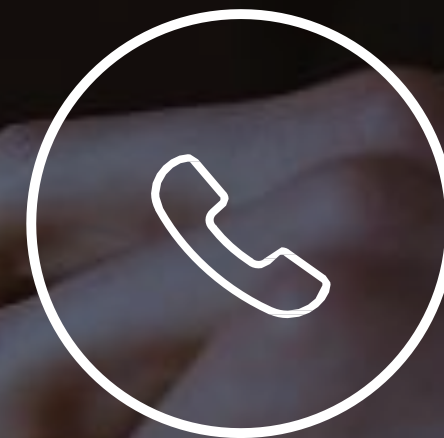
## Central Management

Central and web-based user, group and system management.



## Secure Contacts

Secure, trusted and closed circle of contacts generated and managed centrally.



## Secure Call

Secure one-to-one, conference and external calls (via PBX integration).



## Secure Messaging & File Sharing

Secure instant messaging, file sharing and SMS within your contacts.

# Mobile App

Extensive Feature Set



## VOICE

- One-to-one call
- Conference call
- External call
- Voice mail



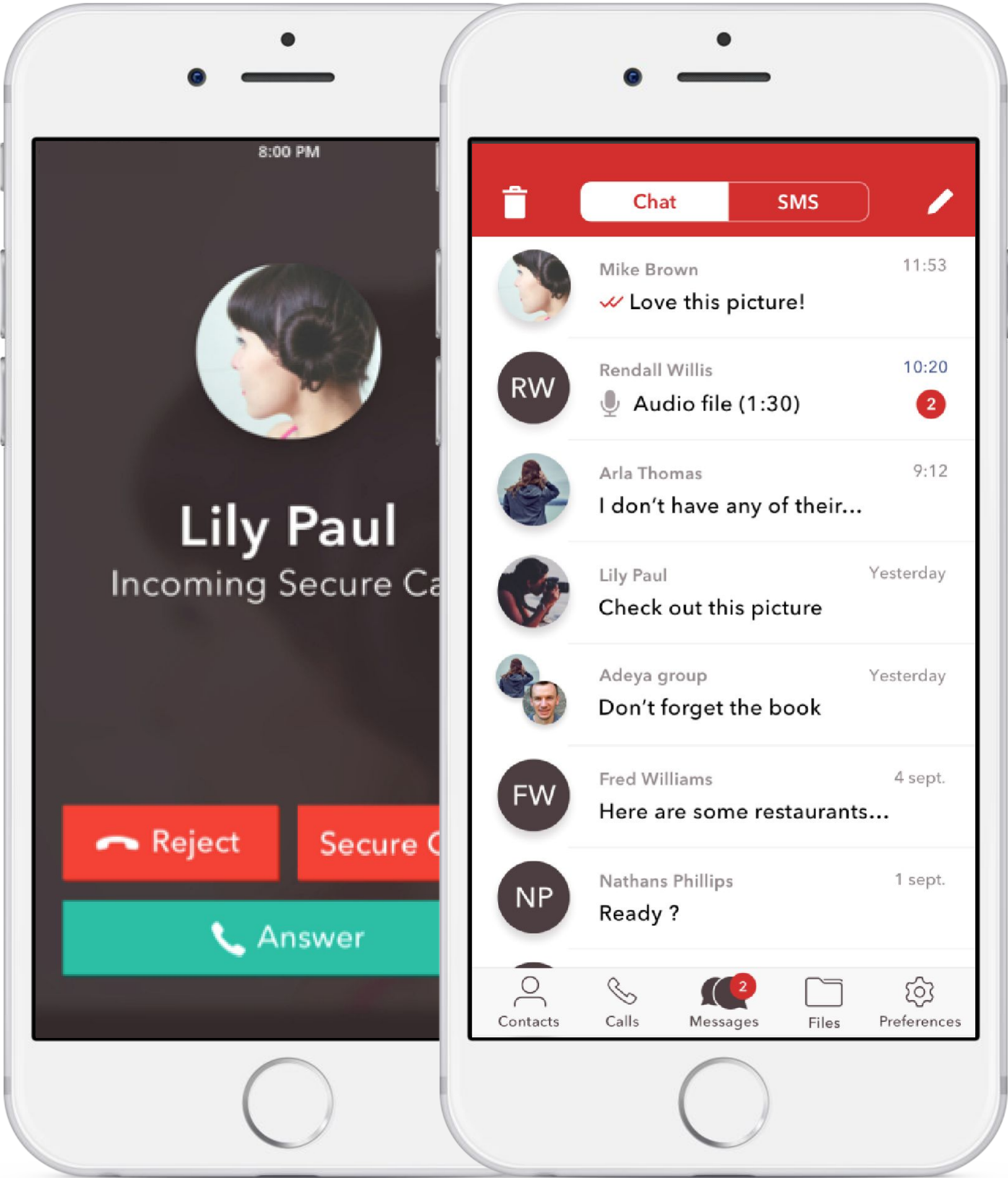
## SYSTEM

- Password protection
- Secure storage
- Presence
- History
- Screen lock



## MESSAGING

- Text Messaging
- Image sharing
- Video file sharing
- PDF document sharing
- MS File Sharing\*
- Audio file sharing
- Geo-location sharing
- Message broadcast
- Message forward
- Group chat
- Message auto-destruction
- Message take-back
- Secure SMS
- SMS
- Notification
- Message delivery/read status



\* Road map

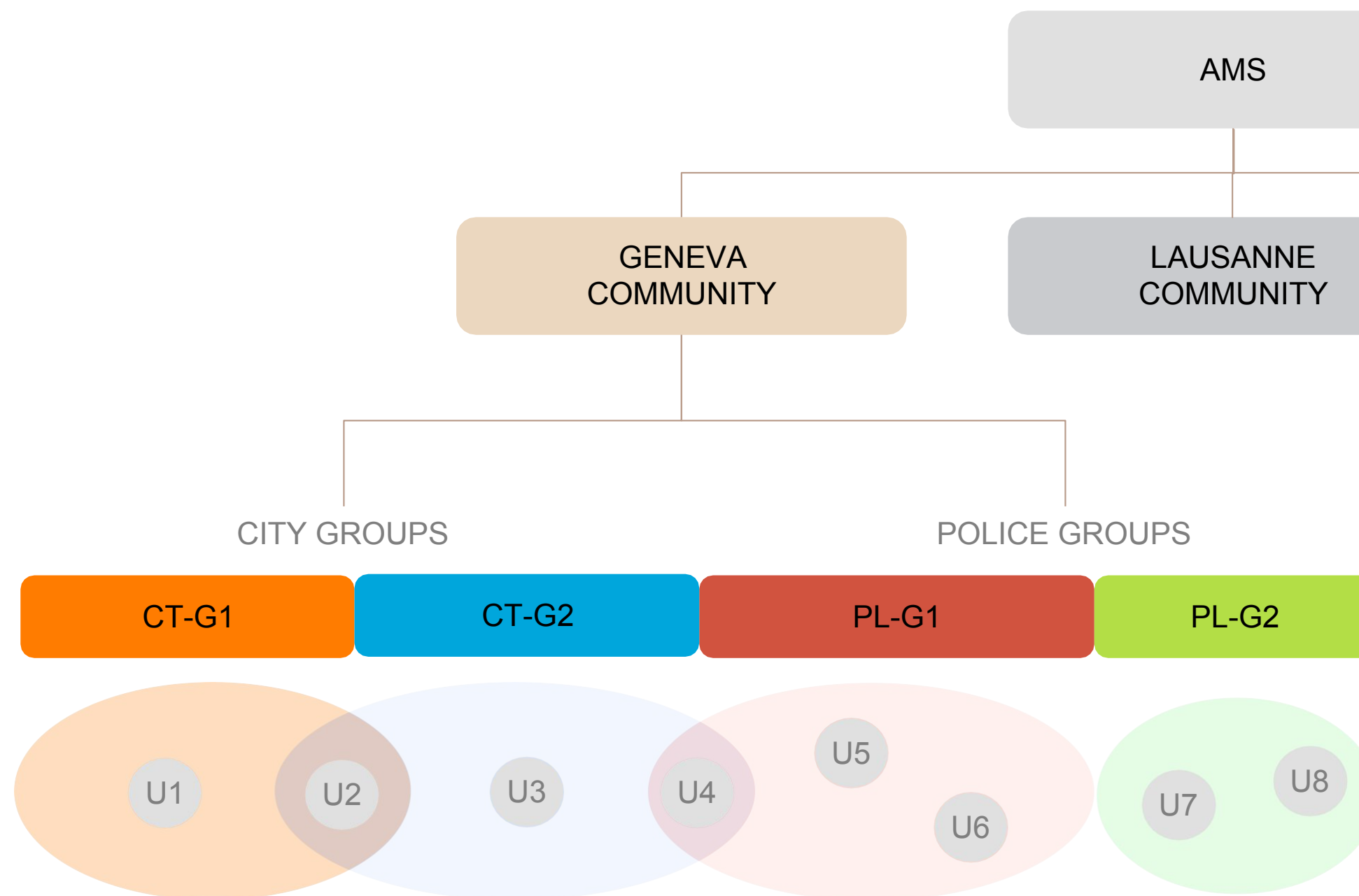
## MANAGEMENT SYSTEM

# CLOSED COMMUNITY CONCEPT

A closed community is a set of predefined users distributed over a set of communication groups.

Each community has a dedicated manager. A community can be deployed on a single gate or a cluster of distributed gates.

Each community has its own settings: store, App branding, set of communication features, etc.



Example:

- U1 can communicate with only U2
- U2 can communicate with U1, U3 and U4

A D V A N C E D T E C H N O L O G Y F O R   S E C U R I T Y   A N D   P R I V A C Y

# Deployment Types

Our product is flexible enough to be deployed in two ways: either in a private cloud to allow for more restricted on premise installations or in a public cloud in a simpler and more cost effective way



## On-Premise

*Allows for dedicated on-premise deployments.*

### Target Market

Government & Defense, ICT Service Providers



## Public Cloud

*Allows for efficient deployment on a highly-secure Swiss based datacenter.*

### Target Market

Enterprises, SMBs

# Key Product Features

USPs

**SECURE**

E2E encryption in closed circles with maximum control, while providing the highest degree of usability.

**SWISS**

High privacy standards and high quality software; Swiss-based public cloud version ensured by strict Swiss laws for data protection.

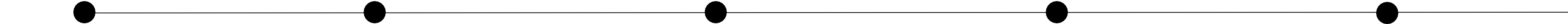
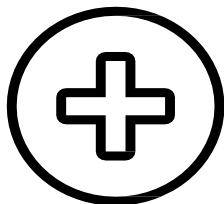
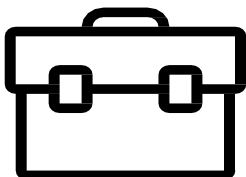
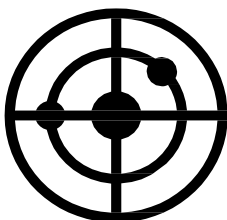
**FLEXIBLE**

Numerous installation and customization options allowing organizations to easily comply with specific requirements.



# Market Segments

# Target Market Segments



GOVERNMENT

DEFENSE

FINANCIAL SERVICES

HEALTHCARE

OTHER

Parliament  
Presidency  
Ministry of Interior  
Ministry of Foreign Affairs  
Civil Police  
State & Cantonal  
Departments

Ministry of Defense  
Army  
National Guards  
Intelligence Services  
Military Police

Banking  
Insurance  
Tax &  
Audit

Ministry of Health  
Hospitals  
Clinics  
Pharmacies

Oil & Gas  
R&D  
Start-ups  
Law Firms  
Family Offices



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