

MoH Hamagen App

Developing secure apps while running,
against time, with the government

משרד
הבריאות
לחיים בריאים יותר



Who am I?

Father of two, hacker

BSidesTLV chairman and **CTF** member

(Lucky to speak at many conferences)

Today: **Profero**

Before: Intel, Cisco and a couple of Startups

OS Hardening, Crypto, Embedded Security,
Security of ML

@barnhartguy



OWASP
AppSec Israel 2018



CRYPTO + PRIVACY
VILLAGE



Tracking Patients with Military Intelligence



שירות
הביטחון
הכללי

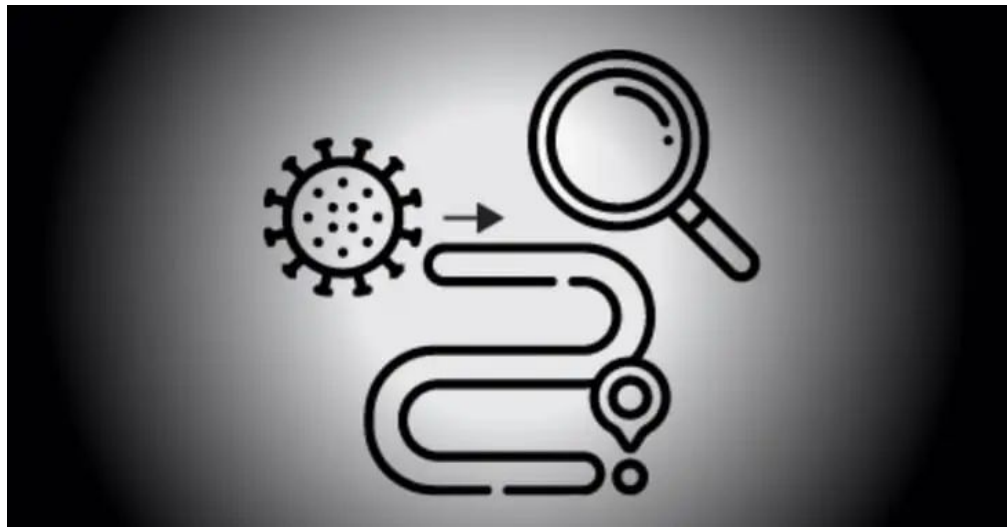


This isn't normal

Tracking locations

At scale

Using defense technologies against citizens



Easiest Solution?



You need to believe

The Government isn't evil

Like many orgs, they are not security minded

They need people that can show the way



Principles



Choice



Privacy

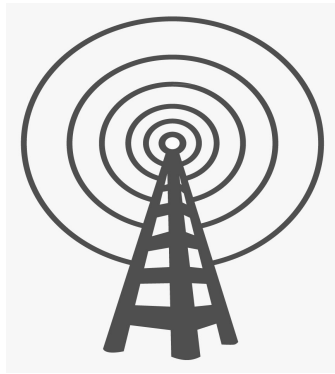


Security

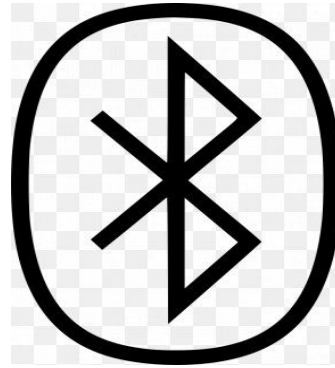
Spatial Data



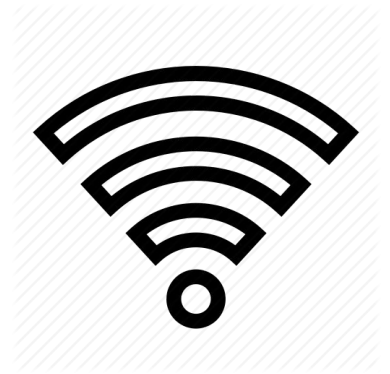
GPS



Cellular



Bluetooth



WiFi

Matching Locations

Was your device next to any of the known locations?

Can you approve that this is the case?

Do you approve sharing of this information?

Everything is on the device

User consent needed

Download the "Hamagen" application to your device

The application collects your location history in the background

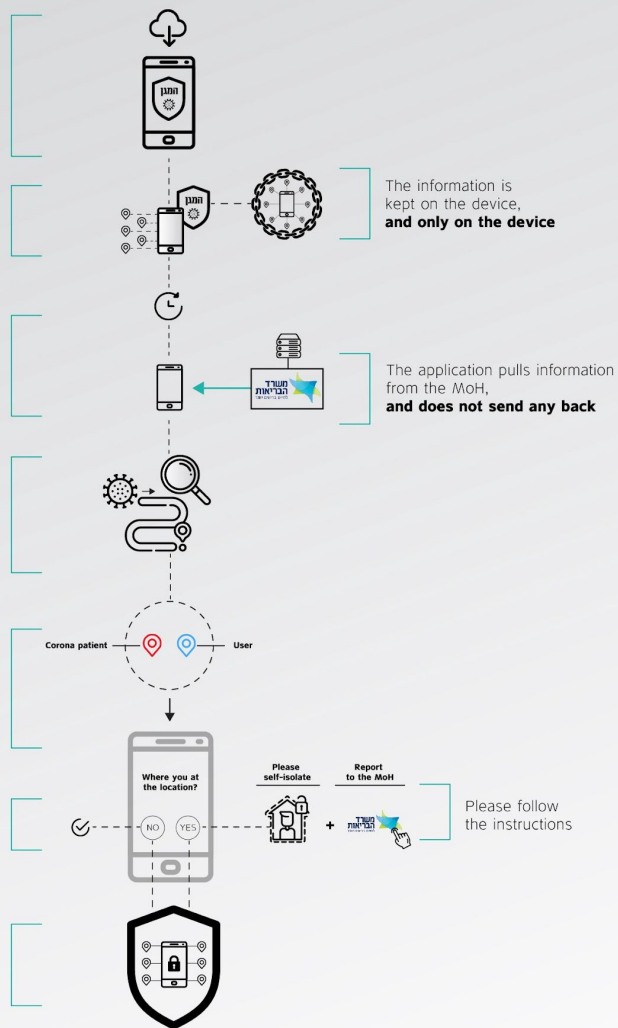
A few times a day, the application downloads information from the MoH server on known corona patients paths

The application compares the local locations on the device with the information from the server, as they are received from the MoH

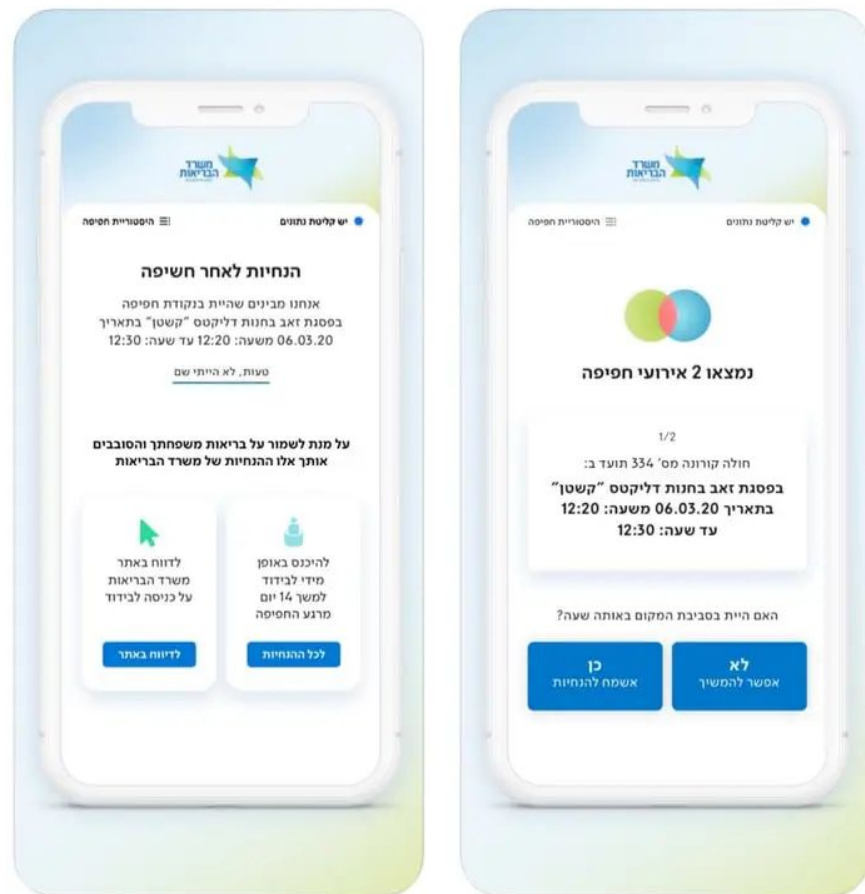
When there is a match, the application notifies the user

The alert is kept on the device and will not be displayed again

In both situations, the information is kept on the device and not sent to anyone



COVID-19



COVID-19



**According to data collected
thus far, starting from:
23.03.20 at: 07:35 no points
of intersection have been
found with CoronaVirus
patients**

You can now close the app.
We'll let you know if there's
anything new.

Goals

Wide adoption

Privacy by design

Secure by default

Goals

Wide adoption

- +500K on Android

- Open Source, community feedback

Privacy by design

- Does not send information to MoH

- User consent required

Secure by default

- No central DB, computation on device

- TLS everywhere

Great support from the community



Ran Bar-Zik

@barzik

המון אנשים שואלים אותי על האפליקציה של משרד הבריאות. במיוחד לאור המוניטין הממשלתי הרקוב. אבל, הפעם, הפעם, הפעם** הם עשו את הכל נכון. לקחו מומחי אבטחה מהשורה הראשונה, ישחררו את האפליקציה בקוד פתוח (קיבלתי כבר גישה ראשונית). אני? מתקין<<
itunes.apple.com/us/app/id15032...

Translate Tweet



המגן - האפליקציה הלאומית למלחמה בנגיף הקורונה כדי שנוכל להגן על בריאותם של האנשים בקבוצות הסיכון, של בני משפחתנו ושל כל אחד מאיתנו - על כולנו לקחת חלק במאמץ ...
<https://t.co/zueeVB2t61>

It is possible!

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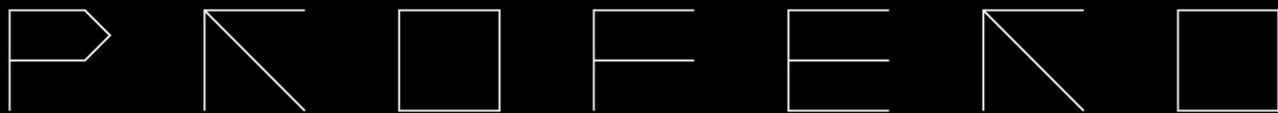
GitHub



<https://github.com/MohGovIL/hamagen-react-native>



PR and Issues Welcome



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