

Emergency VPN

Analyzing Mobile Network
Traffic to Detect Digital Threats



Veronica Valeros, veronica.valeros@aic.fel.cvut.cz, @verovaleros
Sebastian Garcia, sebastian.garcia@agents.fel.cvut.cz, @eldracote
Civilsphere Project, Stratosphere Laboratory, Czech Technical University in Prague
www.civilsphereproject.org



Maati Monjib

Historian

Source: New York Times



Alberto Nisman

Lawyer

Source: Citizen Lab



Ahmed Mansoor

Activist

Source: Human Rights Watch



**Simón
Barquera**
Researcher

Source: Citizen Lab



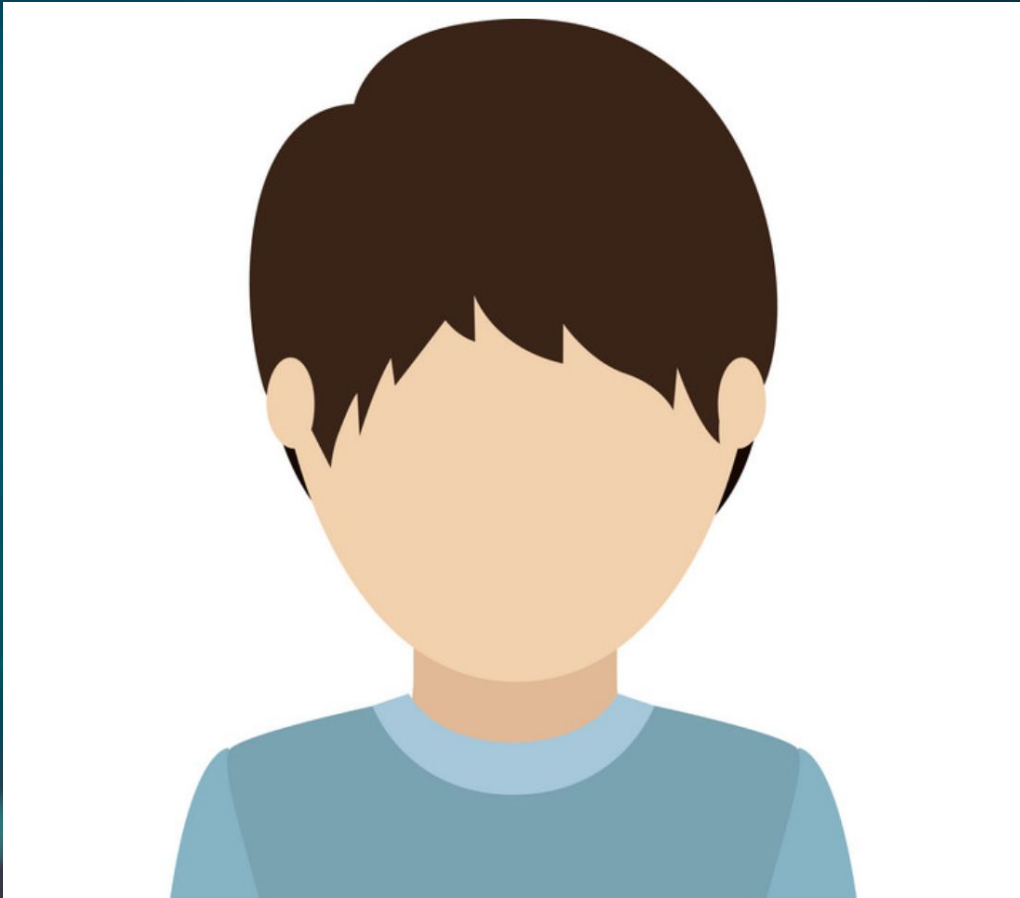
**Karla
Salas**

Lawyer




Griselda Triana

Widow



Emilio Aristegui

Lawyer son
(minor)



**Governments use spyware
to surveil, abuse, imprison
and kill individuals**

WHAT CAN WE DO IF WE SUSPECT OUR PHONE IS COMPROMISED?

Careful analysis of a mobile device to identify the cause of an infection.
Costly. Takes time.



**FORENSIC
ANALYSIS**

Restoring the phone to its original state.
Does not help for certain infections.



**FACTORY
RESET**

Simple solution.
Very costly for the users.



**CHANGE
PHONES**

Analysis of the network traffic to identify suspicious connections



**TRAFFIC
ANALYSIS**

**How can we know if
our phone is
compromised?**

**Our
Proposal.
Emergency
VPN**



What is the EVPN?



Free OpenVPN service
for your phone, going
through our University



Security Analysis
Service of the Traffic of
your Phone. 3 days max

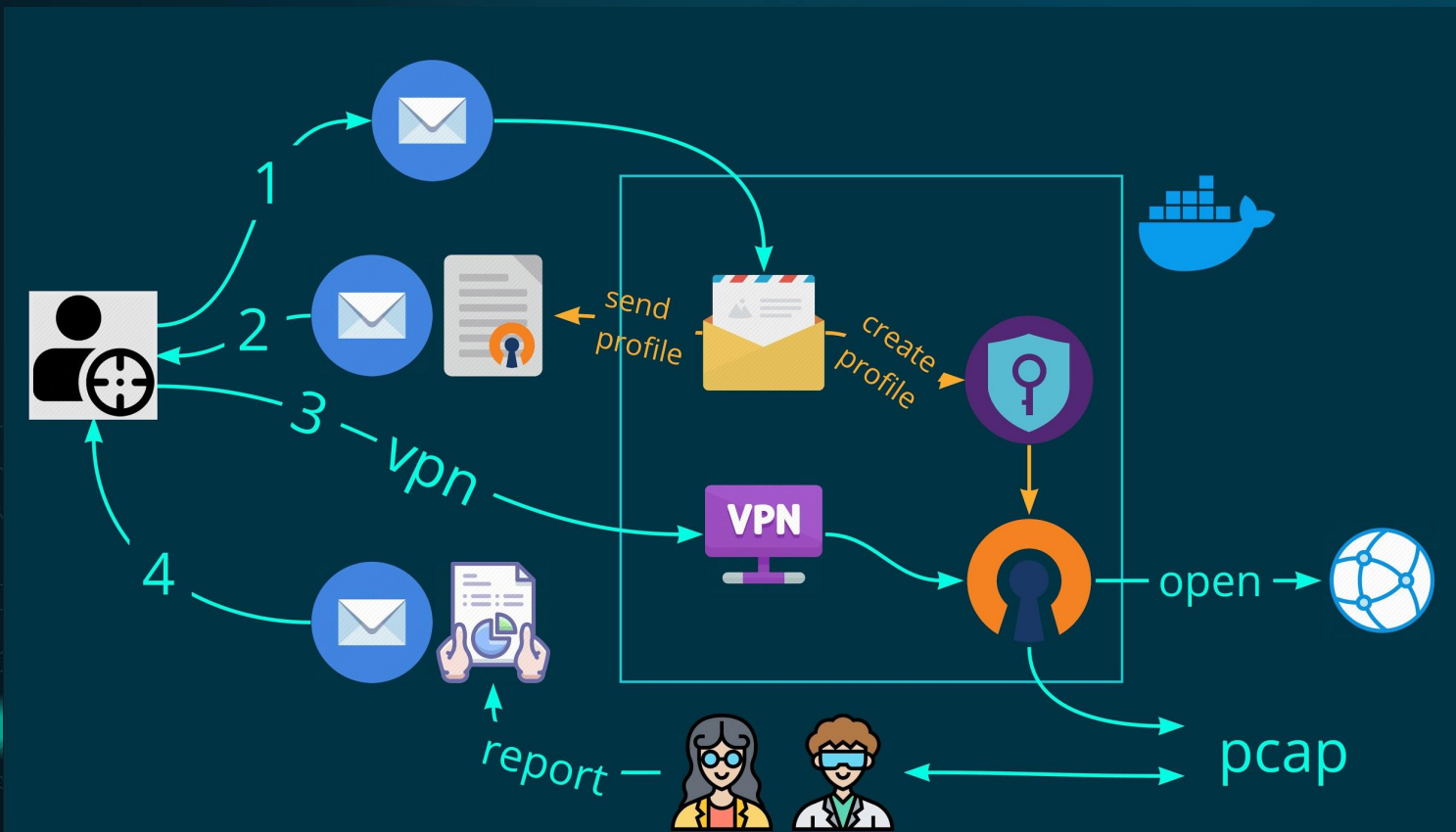


Analysis by experts
and tools

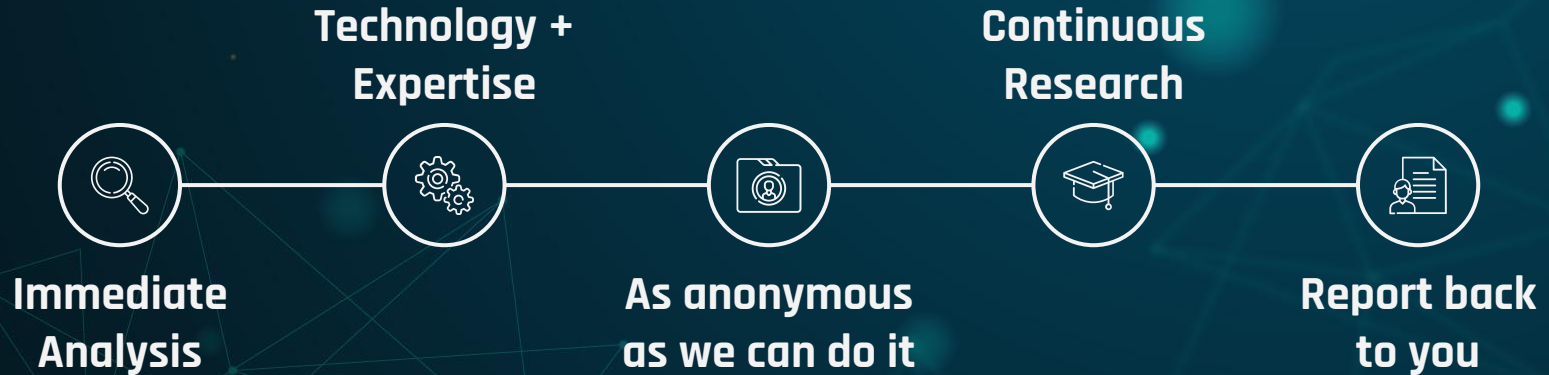


Free Software

How does the EVPN work?



Advantages of EVPN



Free to use any time you feel at risk

Insights from EVPN operations

**Active since
mid 2018**

**Analyzed
111 cases**

**60% Android
devices**

**82 GB of traffic
analyzed**

**3,200 hours of
traffic analyzed**

**95% of issues
are caused by
normal apps**

The most common issues of mobile users



GEOLOCATION LEAKED

Plain text. You don't need to be infected to be found.



INSECURE APPS

Applications use insecure protocols that endanger the user by leaking their data



PERSONAL DATA

Email, phone number, user behavior, preferences



IMEI & IMSI

Unique information that can help track and locate a user.

Important Cases



Trojans

Not targeted trojans
designed to steal money
from their victims



P2P with malicious files

Peer to peer applications
advertised as file sharing but
used to spread malware

Why not more?

**We need to
reach the right
audience, at the
right time**

**Do you
believe
you are at
risk?**

**Do you know
somebody at risk?**

Contact us

civilsphere@aic.fel.cvut.cz

+420 778 577 766

THANKS!

civilsphere@aic.fel.cvut.cz

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www.civilsphereproject.org



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