



# Pegasus Spyware

Mariama Barry, Anthony Thomas, Kim Llanganate  
Kyle Muth, Zau Nhkum, Alex Casas

# Meet the Team



Kyle Muth  
IM&T



Zau Nhkum  
IM&T



Alex Casas  
IM&T



Mariama Barry  
IM&T



Anthony Thomas  
IM&T



Kim Llanganate Puente  
IM&T

# What is Pegasus and Where Does it Originate?



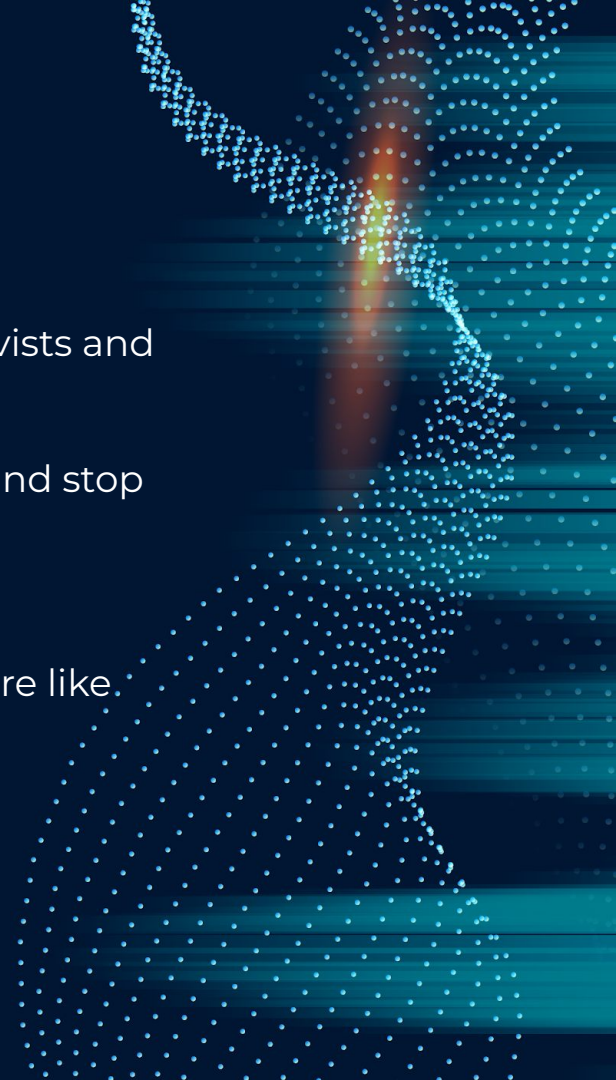
What is Pegasus?

- A spyware prototype program created by Israeli cyber intelligence in 2011.
- A zero-click surveillance software
- Has the ability to infiltrate most iOS and Android devices
- Has a lot of power
- Not originally intended to be used as a cyberweapon



# Controversy

- NSO group can sell spyware to any agency of their choice
  - Used by authoritarian/repressive states to target activists and journalists
  - However, also used to help prevent terrorist attacks and stop crime rings
- Invasion of Privacy
- No substantial regulations on the sale or transfer of spyware like Pegasus
- Lack of transparency prevents accountability





**Access To:**

Calls  
Emails  
Social Media  
Location  
Contacts  
Passwords  
Notes  
Photos

**People  
Affected**

Journalists  
Human Rights Activists  
Government Officials  
Past Presidents

**50k+**

Leaked Phone  
Numbers

**15k+**

Leaked numbers  
come from  
Mexico

# Global Spyware Scandal

Pegasus Project:

- Investigative journalism first reported in July 2021
- Attacked Journalist, Human Rights Activists, Politicians, Etc.
- Mexico, Morocco, Hungary, and India
- Greater regulation for cyber-surveillance industries



# Is it ethical

- Is NSO group considered an ethical company?
- Should US intelligence inform US companies about exploits?
- Should US organizations use a software that can spy on its citizens without warrant?
- Should Israel allow a company it controls to sell software used to target/kill journalists?



# The Aftermath

- The us government where customers of the spyware but still ordered an investigation by the justice department
- Found that it wasnt only used on malicious people like NSO claims. Which sets a dangerous precedent
- NSO was banned from purchasing American technology
- After pegasus was discovered the response time from the companies affected was quick
  - Apple creates a patch within ten days of finding out about pegasus





# Software Comparison

## Unique Traits / Differences

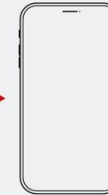
- Made to attack mobile devices
- Very difficult to detect or trace
- Can have root access
- Can be deployed as a Worm or a Trojan
- Very Expensive, flat fee of 500k

### How Pegasus infiltrates a phone and what it can do

#### Attack vectors

Pegasus can be installed on a phone through vulnerabilities in common apps, or by tricking a target into clicking a malicious link

- SMS
- WhatsApp
- iMessage
- ? Unknown vulnerability



#### Capabilities

Once installed, Pegasus can theoretically harvest any data from the device and transmit it back to the attacker

- SMS
- Emails
- WhatsApp chats
- Photos and videos
- Activate microphone
- Activate camera
- Record calls
- GPS data
- Calendar
- Contacts book

Guardian graphic

# Lessons Learned



There are many ethical issues with this software as it violates the user's right to privacy. - Mariama

The importance of ethical hacking/hackers. - Anthony

Never store very sensitive or work related data on personal devices - Zau

Although things like spyware may be intended to be used correctly, that can't always be promised - Kim

Of all devices, our phones carry our most personal information so securing them should be a priority - Alex

The background is a dark blue gradient. It features two large, abstract, glowing shapes on the left and right sides. These shapes are composed of many small, white, dot-like particles arranged in a grid-like pattern. Bright orange and yellow light streaks and flares emanate from the top corners, creating a sense of dynamic energy and movement.

**Questions?**

# References

<https://www.avast.com/c-pegasus-spyware>

<https://www.iri.org/news/the-pegasus-spyware-scandal-highlights-the-threats-activists-and-journalists-face/>

<https://www.theguardian.com/news/2021/jul/18/what-is-pegasus-spyware-and-how-does-it-hack-phones>

<https://www.moneycontrol.com/news/india/find-out-the-cost-of-putting-pegasus-into-a-smartphone-for-spying-7200991.html>

<https://www.nytimes.com/2023/04/18/world/americas/pegasus-spyware-mexico.html>

[https://www.researchgate.net/publication/357956844\\_Pegasus\\_Zero-Click\\_spyware\\_attack\\_its\\_countermeasures\\_and\\_challenges](https://www.researchgate.net/publication/357956844_Pegasus_Zero-Click_spyware_attack_its_countermeasures_and_challenges)