IoT: Client Devices

Securing the Kernel and OS

Securing the Kernel

Okay, you're not a kernel/OS developer

- You're not going too be writing secure kernel code

You are responsible for a secure kernel

- …on your device

So what does this mean?

Use a Secure Kernel

Don't use buggy code

- This includes kernels, libraries, etc.

Old? Known issues?

- Don't use it
- Use the newest most secure code you can

Ship Secure Tooling

OS IMAGES COME WITH LOTS OF STUFF

- Only ship what you need
- Don’t ship things you don’t

ONGOING MAINTENANCE AND ANALYSIS

- This is a real need too
- Make sure anything that you ship on your device is as secure as possible!

DON’T WRITE YOUR OWN

- Don’t create your own protocols or encryption

Build Updatable Devices

VULNERABILITIES **WILL** POP UP

- They always do.

MAKE SURE THAT WHEN THEY DO YOU CAN FIX THEM

- You'll need to do this at scale
- You'll need to secure this too