Protecting home and family

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GET CONNECTED: TECHNOLOGY FAIR FOR ADULTS 50+

The connected world – cell phones

- Global number of phones
  - 7.9 billion mobile phones globally
  - 7.6 billion people
- USA
  - 328 million phones
  - 318 million people

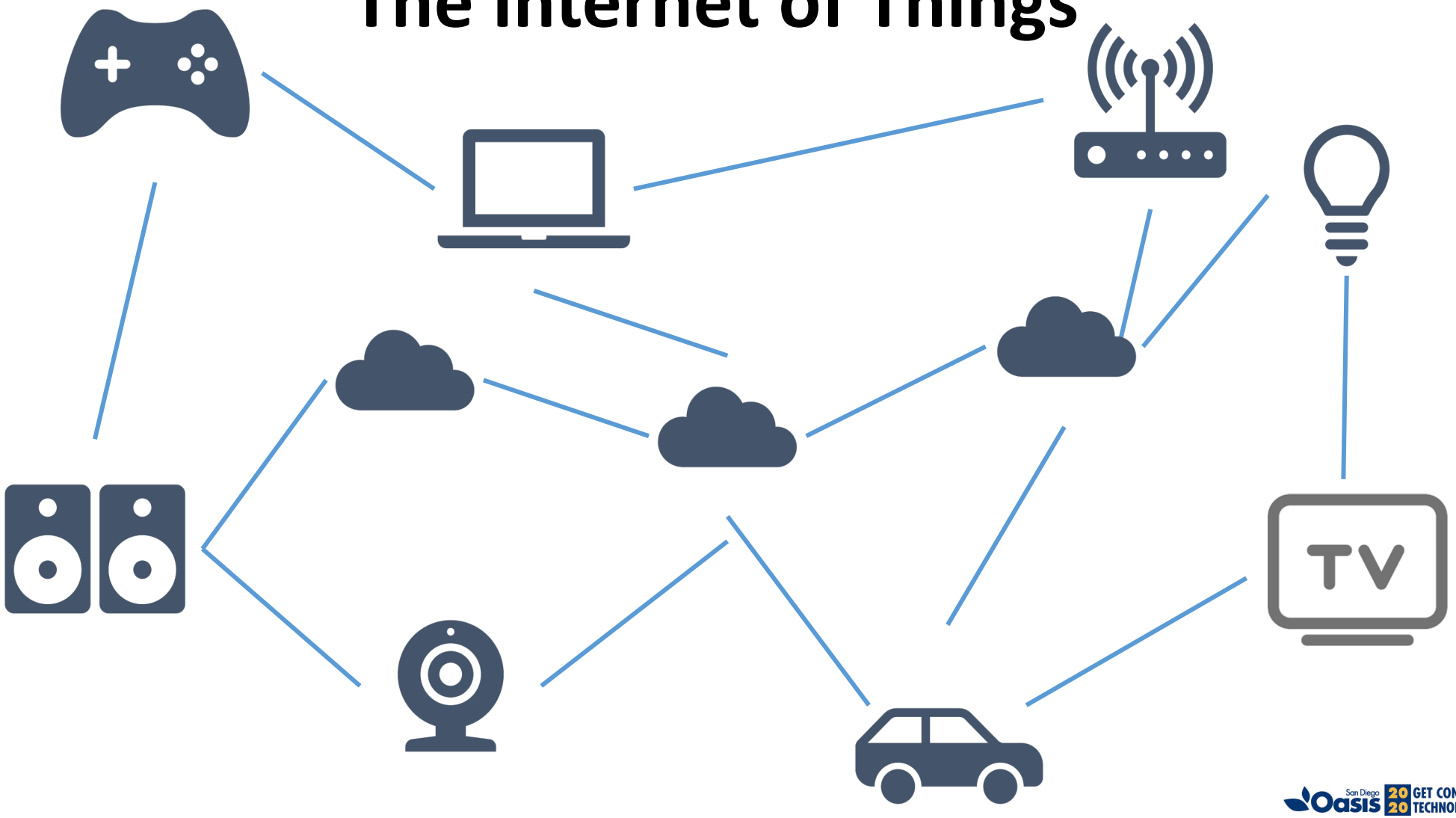
Source - Wikipedia

The connected world - devices

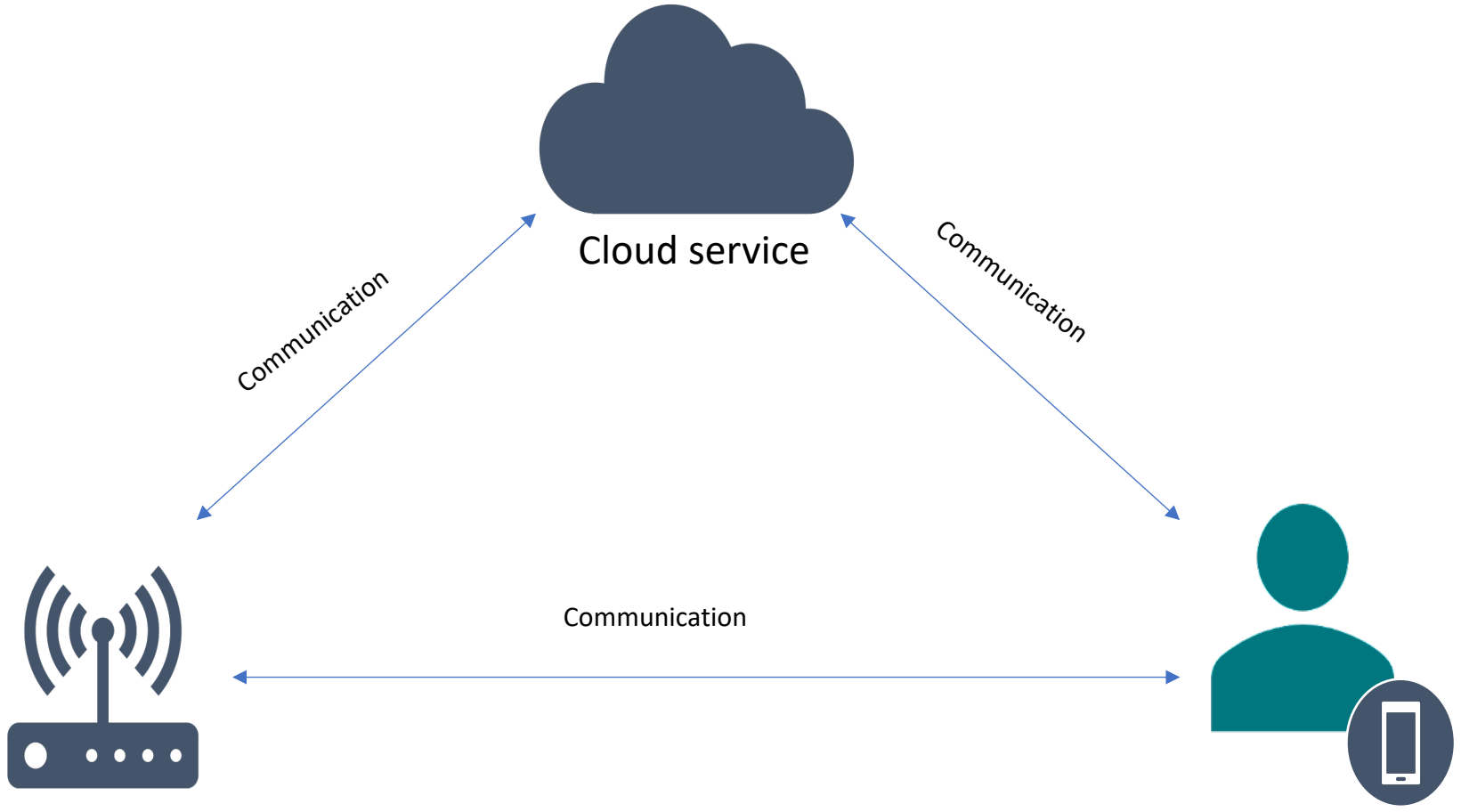
- 2020 – 31 billion IoT devices
- 2021 – estimated 35 billion
- 2025 – predicted 75 billion

Sources - Wikipedia, GSMA, Statista

The Internet of Things



How IoT devices (typically) work



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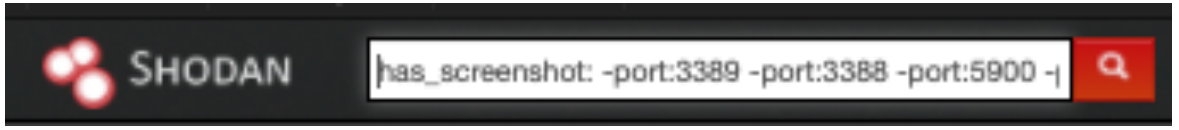
Why target IoT?

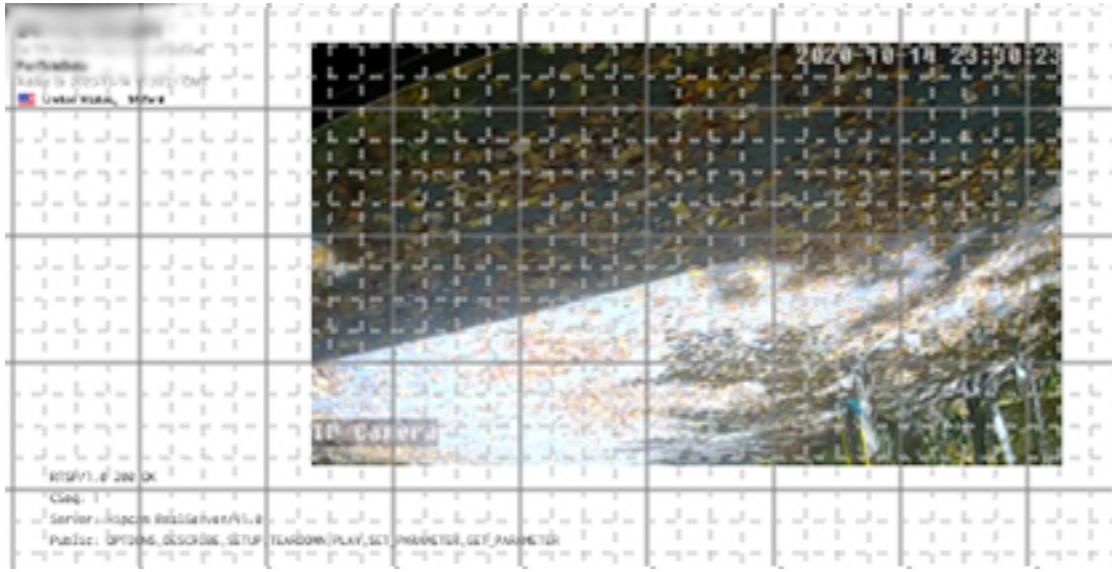
- Always on
- Always connected
- Malware is hard to detect, analyze and remove
- Less sophisticated
- Computing power is increasing

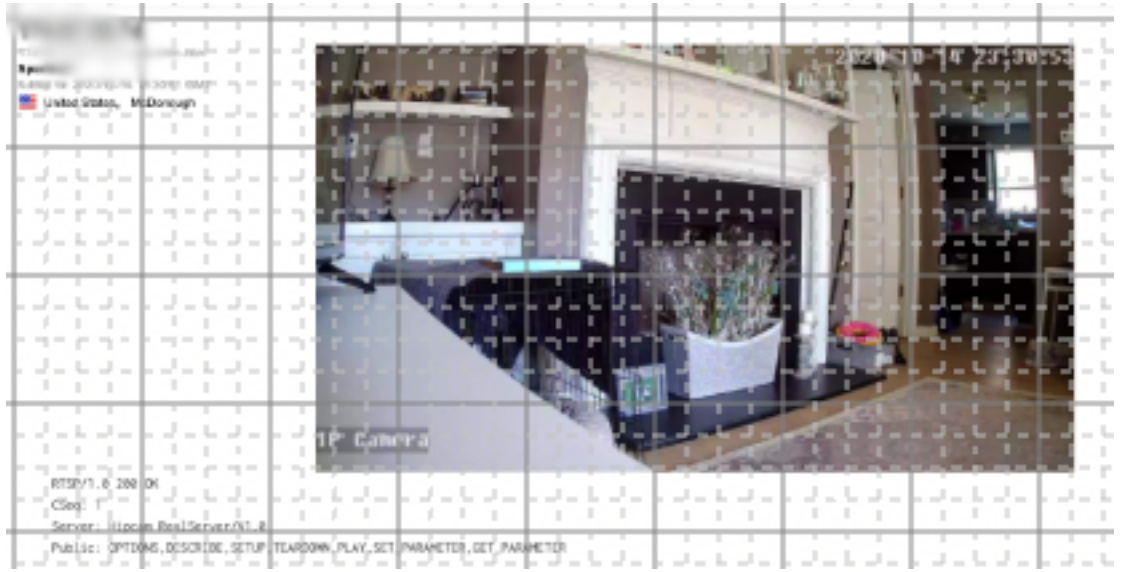
Is there a risk?

- Accessing and controlling your device
- Abusing the device
- Collecting personal data
- Over or inadvertently sharing

Is there a risk?







Abusing the device

CSO

The Mirai botnet explained: How teen scammers and CCTV cameras almost brought down the internet

Mirai took advantage of insecure IoT devices in a simple but clever way. It scanned big blocks of the internet for open Telnet ports, then attempted to log in default passwords. In this way, it was able to amass a botnet army.

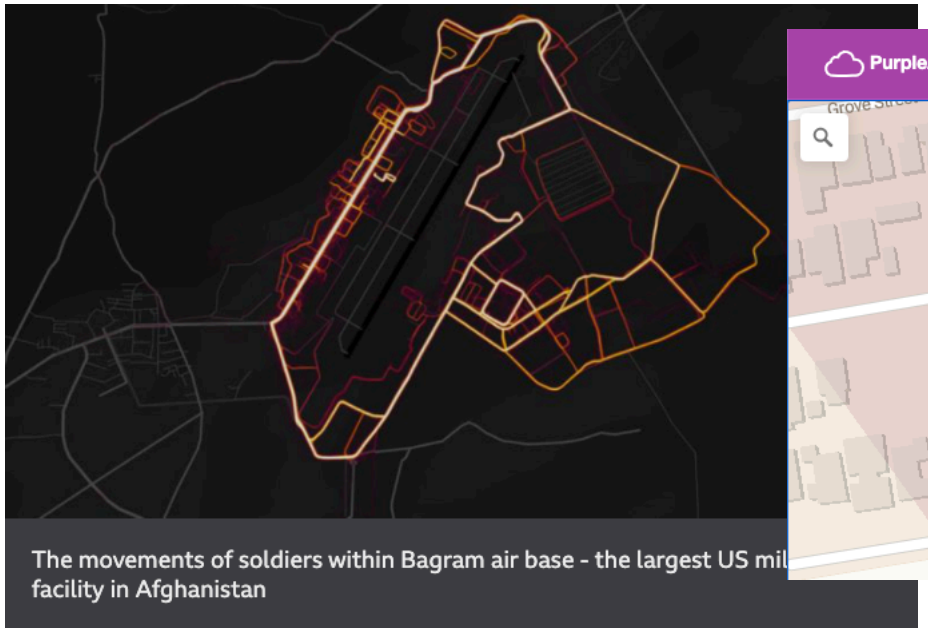
By Josh Fruhlinger

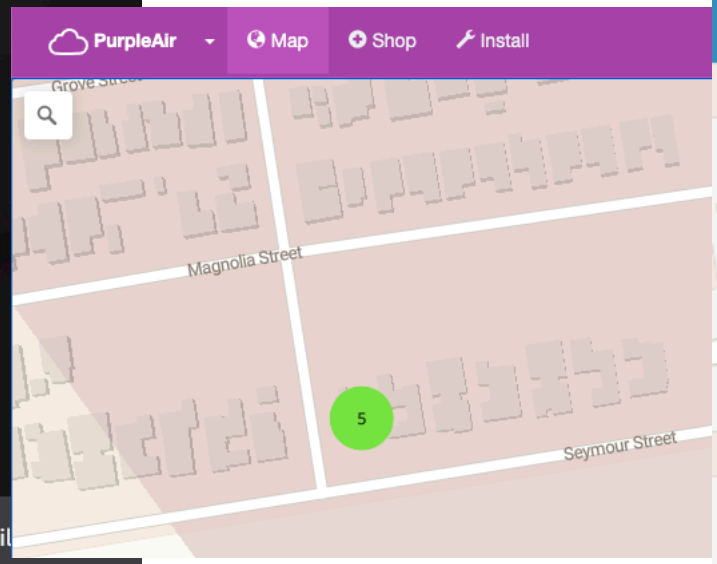
CSO | MAR 9, 2018 3:00 AM PST

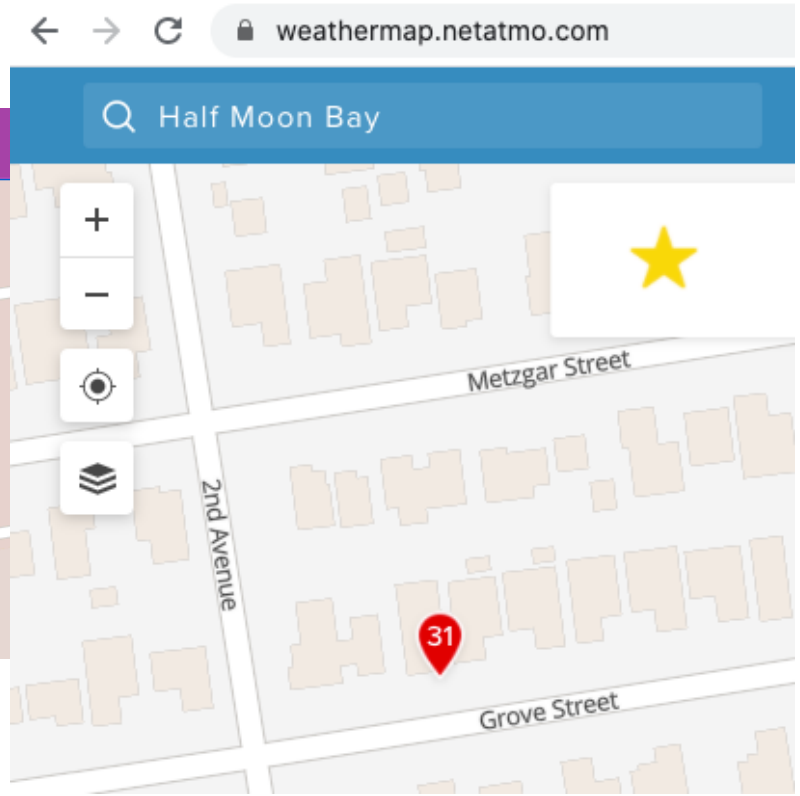
Oversharing

- Wake up at 7 AM – connected coffee machine
- Stream music while showering
- Book a table or order takeout for lunch
- Get directions to the tennis courts
- Drive through a smart toll booth
- Track your fitness playing tennis

Inadvertently sharing







Digital/Home assistants

Home/Digital assistants

- Very secure
  - Forces user to set password
  - Automatic updates
  - Strong encryption
- Privacy concerns

Privacy Concerns

Weight | Passwords | Birthday | Health

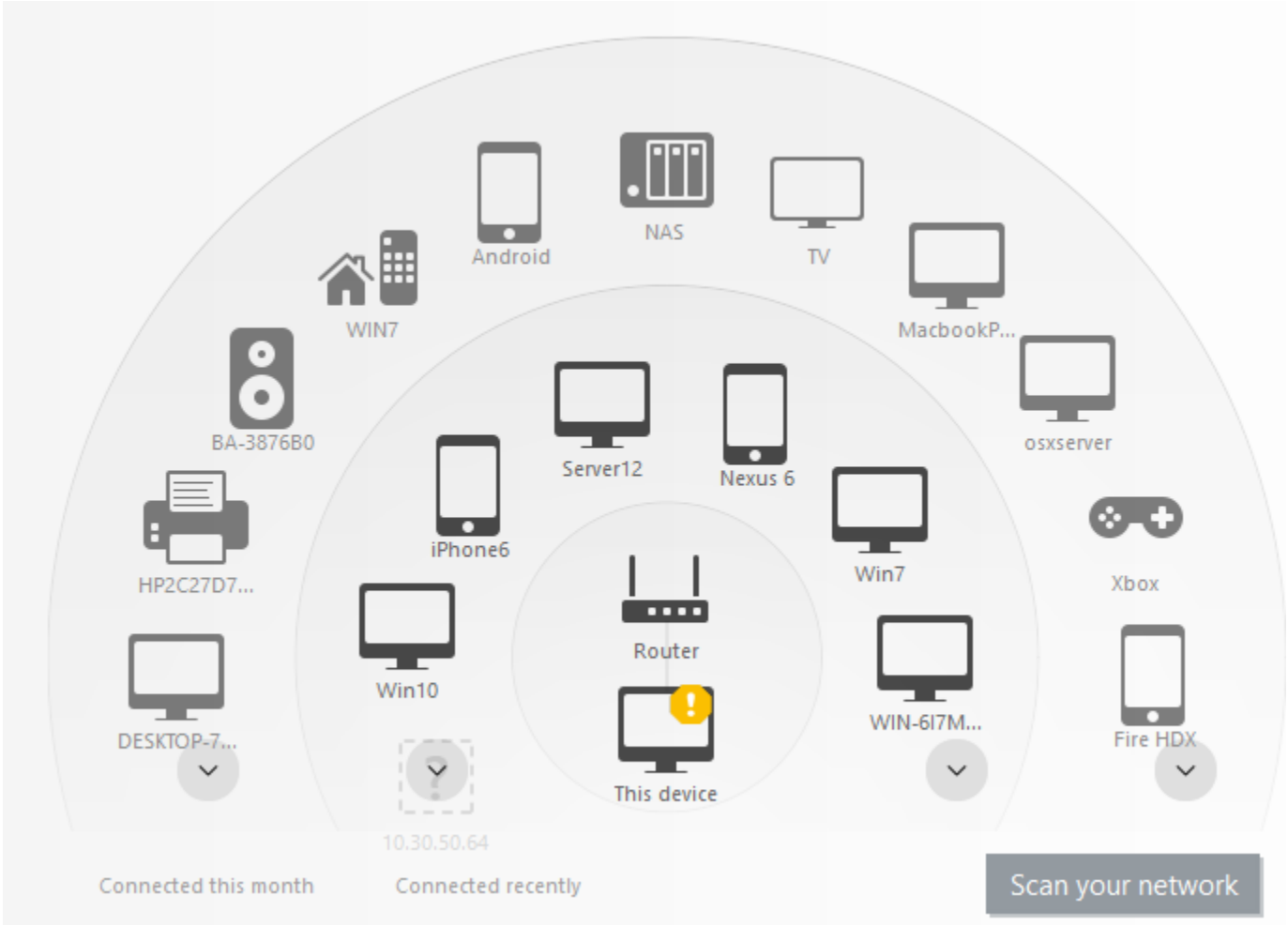
Behavior | Social Security | Schedule

Documents | Photos/Videos

Identity Theft

- Someone uses your Social Security number or other personal information to assume your identity in order to commit fraud or other criminal acts.
- 60 million Americans have been affected by identity theft—according to a survey by The Harris Poll

Know what's connected



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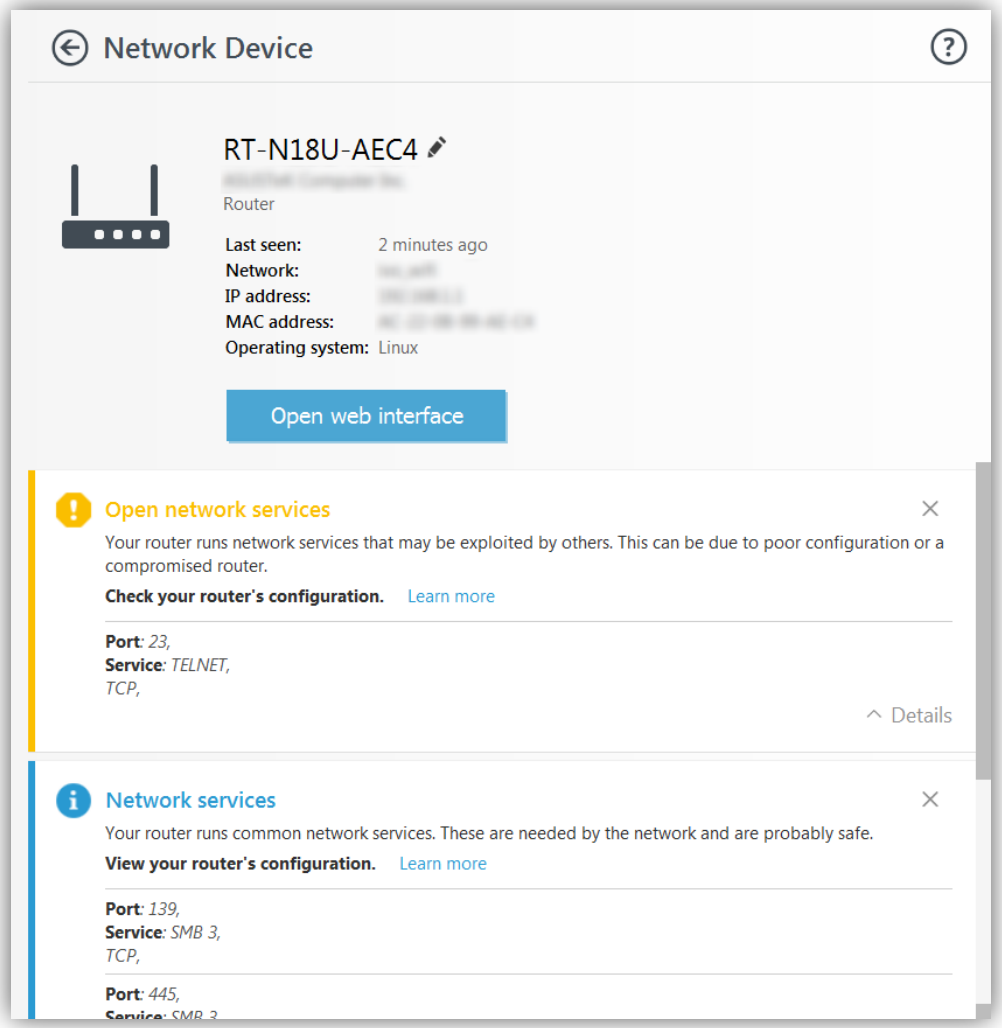
Investigate the device



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Fix what's connected

- Use strong password
- 2FA where possible
- Periodically update firmware
- Enable encryption
- Disable unused services
- Search up the vendor/device vulnerabilities
- Install security software – when available

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Regulation & Certification

Certification

Regulation

- Reasonable security features
  - Appropriate to device
  - Appropriate to function
  - Designed to protect itself
- Authentication
  - Unique password out-of-box
  - Require immediate change

Security of connected devices

- Vulnerability policy/contact
- Software updates
- Secure storage – credentials and data
- Communicate securely
- Easy deletion

Before you purchase or connect

- Research the device for vulnerabilities
- Check the vendor updates their software
- Read the privacy policy
- Limit sharing
- Don’t tell your assistant everything

Thank you for attending

http://offers.eset.com/oasis

Questions?