Who’s in Charge of Regulating the Internet of Things?

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Introduction

• The ‘Internet of Things’ (IoT) is defined as:
  – Devices, sensors and electronics that connect, store, transmit and/or communicate data between or with each other via Internet, wireless or network

• Estimates are **20-30 billion everyday items by 2020** will be connected – in our homes, automobiles, food safety, medical devices, critical infrastructure, manufacturing, etc.
IoT ≠ Not the *Wild Wild West*

- Misconception that because data generated by IoT in a novel way, privacy, data security and other laws do not apply.
- Key for manufacturers to understand that data generated by IoT is personal data, sometimes very sensitive.
IoT ≠ Not the *Wild Wild West*

- Statutes and regulations adopted during and prior to Internet age apply to IoT, even if by analogy.
- Enforcement actions by FTC and others also apply.
- Patchwork of federal, state and even industry guidance and legislation, particularly on disclosure, privacy, security, prohibition against unfair and deceptive practices.
IoT By Design

• Consider human impact IoT will have during product concept or design process.
• Identify risks and vulnerabilities so can take measures to mitigate them.
• Data minimization
• Don’t delay until production or quality control phase or when begin marketing product.
IoT Vulnerabilities

• Challenges on vulnerabilities
  – **Tension** between profit and speed to market v. cybersecurity
  – Patches and updates work for laptops and smartphones, but not with IoT devices. **Challenging to shut down** IoT device or whole internet-connected industrial facility or urban area
IoT Data Breach and Access

• **Unauthorized access** to personal data
• IoT used to **spread ransomware and malware and launch DoS attacks**
• **Data Requests** from law enforcement, government and private parties
• Potential **legal and public relations** issues
IoT RoadMap to Privacy Policy and Terms of Service

- What Personal Data will IoT Service or Device Collect? Special protections
- How long will personal data be held?
- Who has administrative rights to access personal data?
- Who is hosting or sharing personal data? Third Party vendors?
- Draft Terms of Service
- Draft Privacy Policy to give notice that collecting Personal Data, include uses, storage, access and destruction
- Obtain consent before collect Personal Data (if possible)
- Honor ongoing rights with Respect to Personal Data
- Implement Reasonable Procedures to Protect Security of Personal Data
- Have Access Plan
IoT Road Map to Privacy Policy and Terms of Service

- Make sure devices are not set to default (e.g. change passwords)
- Verify that all devices and sensors are managed and monitored
- Properly segment your network – create an internal, guest and IoT network at a minimum
- Update firewalls and review security configurations, including operating system updates and patches
- Secure remote access
- Require security software on every IoT device (and mobile devices connected to those IoT devices)
- Encrypt transmission and storage of data if possible
- Train employees