Encryption & FBI vs Apple
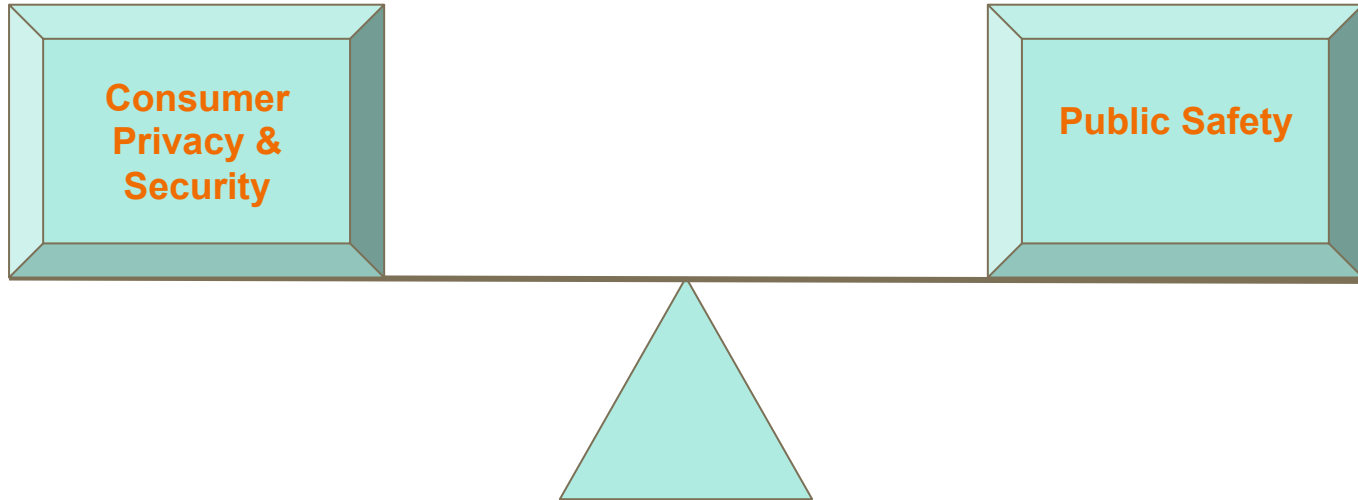
Sophie Park & Shanelle Roman

Main Topics

- Legal Issues in FBI vs. Apple

- Technical Debates in Encryption and Security

- Social Interpretation and Responses

Framing Question

FBI v. Apple

FBI's Motion to Compel

Legal Background

- ❖ **4th Amendment:** Search & Seizure → Right to Privacy
- ❖ **All Writs Act:** "issue writs not otherwise covered by statute"
- ❖ **New York Telephone Co:** Can serve 3rd parties to "facilitate execution of search warrants" under All Writs Act

FBI's Motion to Compel

Legal Test

** Only for this phone!**

Not a backdoor!

- ❖ Not **"Far Removed"** from Matter

- ❖ Not an **Undue Burden**

- ❖ **Assistance Necessary**

Apple's Motion to Vacate

Key Legal Evidence

- ❖ CALEA
- ❖ All Writs Act, *US vs. Hall*
- ❖ Precedents, *Plum Creek Lumber Co. vs. Hutton*
- ❖ Objections to judicial legislation, *Clark v. Martinez*
- ❖ Constitutional Issues

Apple's Motion to Vacate

Key Technical Concerns

❖ Requirements for development of necessary software

❖ Security risks

Key Clashes

FBI vs. Apple

- ❖ Interpretation of FBI's request
- ❖ Scope of the All Writs Act
- ❖ Application of the unreasonable burden standard
- ❖ Arguments about precedents

Discussion

What is End-to-End Encryption?

- "Encryption takes place using keys solely in the possession of the respective device holders"
- Information is not readable by the service provider
  - => No Law Enforcement Backdoor :O
  - More Secure
- Is this different than HTTPS?
  - HTTPS: Server acts as an intermediary and decrypts data

Will We Go Dark?

Berkman Center: Not Likely

- Not included in most "webmail, instant messages, and social networking websites"
- Internet of Things
- Metadata
- Data Analysis = Key Revenue Driver

Keys Under Doormats

Key Takeaways

- ❖ What are the risks of exceptional access?
- ❖ What would a policy framework for exceptional access look like?
- ❖ What are the questions of enforcement not yet answered?

Keys Under Doormats

Technical Risks

- ❖ Compromising encryption
- ❖ Concentrated targeting
- ❖ Jurisdiction and bureaucratic governance
- ❖ Problems with detection and damage control

Challenges of Policy & Enforcement

- ❖ Issues of scope
- ❖ Issues of jurisdiction and international regulatory differences
- ❖ Issues of legal feasibility
- ❖ Certification and quality control
- ❖ Market moral hazards
- ❖ Human rights and democracy
- ❖ Oversight and development

Discussion

Outside Commentary

The Dangerous All Writs Precedent

"It is essential to this story that the order to Apple is not a subpoena: it is issued under the All Writs Act of 1789 … But there are qualifications there: warnings about the writs having to be 'appropriate' and 'agreeable,' not just to the law but to the law's 'principles.'"

"But some of the alarming potential applications are low-tech, too. What if the government was trying to get information not out of a phone but out of a community? Could it require someone with distinct cultural or linguistic knowledge not only to give it information but to use that expertise to devise ways for it to infiltrate that community? Could an imam, for example, be asked not only to tell what he knows but to manufacture an informant?"

Apple Sells Phones, Not Civil Liberties

"now the U.S. government has asked us for something we simply do not have, and something we consider too dangerous to create. They asked us to build a backdoor to the iPhone." -- Apple

"the company's self-presentation as crusading on behalf of the privacy of its customers is largely self-congratulatory nonsense."

"A woman was murdered in Louisiana last summer, eight months pregnant, killed, no clue as to who did it, except her phone is there when she's found killed. They couldn't open it, still can't open it. So the case remains unsolved." -- James Comey

Discussion

Cryptography Basics

❖ Symmetric and asymmetric cryptography
❖ Forward Secrecy
❖ Authentication
❖ Key Escrow
❖ Heartbleed Bug