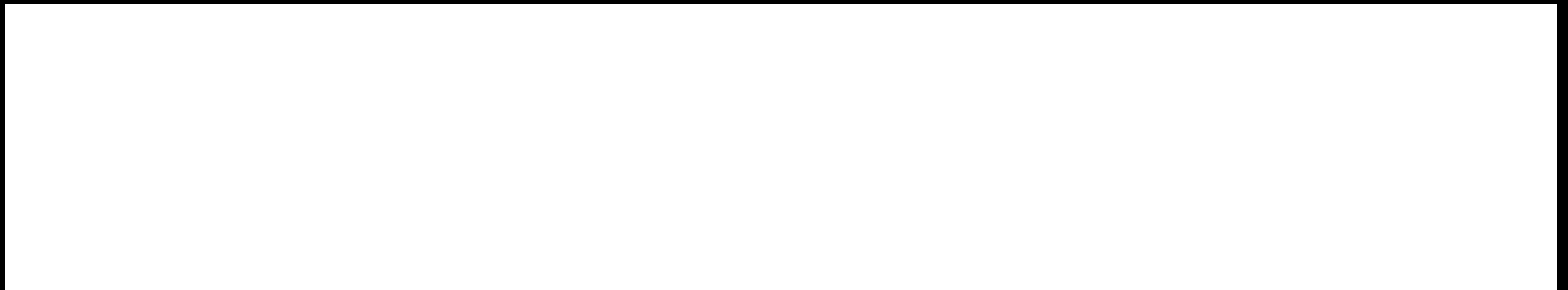


Beyond the Application

Cellular Privacy Regulation



whoami

SEE, digital communications

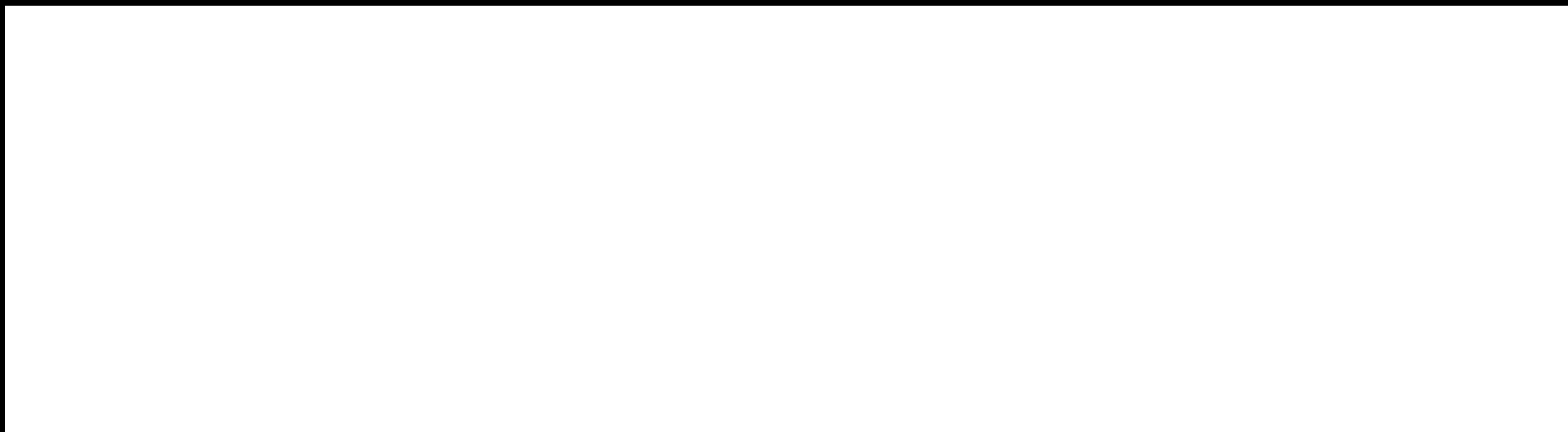
any years as a network engineer

anta Clara University Law student

research assistant providing technical expertise

in privacy audits and reviews

Standard Disclaimer





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THE PROBLEM

What's up with the FCC?

Senator Franken became alarmed about CarrierIQ (Thanks to all the hacking!)

Requested info from the carriers on their use of this technology.

Petitioned the FCC for new rules to stop.

FCC, following rulemaking process, issued Notice and opened up for comments.

FCC's Interesting Questions

What privacy and security obligations should apply to customer information that service providers cause to be collected by and stored on mobile communications devices?”

How does the obligation of carriers to ‘take reasonable measures to discover and protect against attempts to gain unauthorized access to CPNI’ apply in this context?”

What should be the obligations when service providers third party to collect, store, host, or analyze such data?

any more good ones!

What IS CPNI anyway?

formation

Relating to the “quantity, technical configuration, type of service, destination, location, and amount of use of a telecommunications service.”

Made available to the carrier by the customer solely in virtue of the carrier-customer relationship
so billing information.

can not be used to market to a Telco's own customers.

Oh, and by the way

PNI must be disclosed to the customer upon request.

Location data is currently not available to the consumer from any telco.

Knowing what they know would be interesting wouldn't it?



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GAINST REGULATION?

Carriers' Comments

The industry does just fine regulating itself.

This is the purview of the Federal Trade Commission and will cause conflicts.

The FCC does not have the authority to regulate handsets.

The information the industry collects is necessary to insure good service.

Industry Self-Regulation

After people objected, CarrierIQ was “killed”

Industry is bringing it back under new names

T-Mobile calls the app “System Administrator”

Some carriers are now openly selling user data

Verizon markets user data online

Suggests advertisers “re-correlate”.

How is this even pretending there is self-regulation?

Federal Trade Commission's Role

FTC is deeply involved in improving mobile privacy, particularly with applications.

FTC has no authority over carriers and their relationships with their customers.

FTC has issued a statement in support of further PNI regulation.

Insuring Good Service

Anyone remember the arguments for the Charterfone Decision?

Similar “quality” argument here.

Becomes an argument for including data collected in CPNI:

Information “necessary for the operation of the network.”

Alarm Industry's Point

ew technologies cross boundaries

embedded devices increasingly include cellular

urry line between intrusive data collection and

advanced location functionality

vanced approach required to not limit to

handsets" but to "devices"

ustomer knowledge and ability to control key

The logo for Blackhat USA 2013. It features a stylized black hat icon at the top left. Below it, the word "blackhat" is written in a bold, lowercase, sans-serif font, with "black" in white and "hat" in a dark blue color. To the right of "blackhat" is a registered trademark symbol (®). Below "blackhat" is the text "USA 2013" in a white, uppercase, sans-serif font. The background is dark blue with a circuit board pattern and glowing blue dots.

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Workable Solution?

Two Approaches to Regulation

Give consumers more control

Consumers often are pretty clueless

Many don't care about that control

Hold carriers more accountable

Consumer choice could be left behind

Poses enforceability issues

What Should Regulation Look Like

Carriers must be held accountable (under CPNI order) for everything the consumer cannot control

Opt-in schemes with opt-out available any time

How much data is really necessary if they can't sell it?

Carriers need incentive to grant users who want control.

Carriers become responsible for any data breach on an unlocked phone

Added Bonus for Location Privacy

Location should be included in CPNI.

Far less ambiguity for law enforcement requests for location tracking data.

Would require Pen/trap (judicial) order.

Still easier to get than 4th Amendment probable cause search warrant.

Likelihood of Change

Politics are in a pro-privacy upswing now.

Many Senators are making a stand

White House created a privacy initiative

even the GAO has signaled the need for greater
privacy controls.

“Defense” and “law enforcement” arguments are
irrelevant here.

Conclusions-Predictions

There will probably be new regulation soon

The Telcos will sue, challenging the statutory basis for the regulation.

- Telcos will try to keep it tied up in court.

- They will not win (out on a limb here).

Enforcement will become a huge mess.

Consumers will still benefit from regulation



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Thank You

2007 Update Process

March 15 2006 Notice issued.

Similar comment period. (30 day comment, 30 day reply)

99 docs logged - only 37 here. Why?

Sunshine Act meeting July 6, 2006

Rule posted June 8, 2007

Complete List of Questions

- Have [data privacy] practices evolved since we collected information on this issue in the 2007 Further Notice?
- Consumers given meaningful notice and choice with respect to service providers' collection of usage-related information on mobile devices?
- Current practices serve the needs of service providers and consumers, and in what ways?
- Current practices raise concerns with respect to consumer privacy and data security?
- Are the risks created by these practices similar to or different from those that historically have been addressed under the Commission's CPNI rules?
- Do these practices create actual data-security vulnerabilities?
- Should privacy and data security be greater considerations in the design of software for mobile devices, and, if so, should the Commission take any steps to encourage such privacy by design?
- What role can disclosure of service providers' practices to wireless consumers play?
- To what extent should consumers bear responsibility for the privacy and security of data in their custody or control?
- Whether the device is sold by the service provider;
 - Whether the device is locked to the service provider's network so that it would not work with a different service provider;
 - The degree of control that the service provider exercises over the design, integration, installation, or use of the software that collects information;
 - The service provider's role in selecting, integrating, and updating the device's operating system, preinstalled software, and security capabilities;
 - The manner in which the collected information is used;
 - Whether the information pertains to voice service, data service, or both;
 - The role of third parties in collecting and storing data.
- Are there any other factors relevant?
- What are these other factors, and what is their relevance?

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www.zeit.de/digital/datenschutz/2011-03/data-protection-malte-spitz/komplettansicht.

Authorizing CPNI Regulation: 47 U.S.C. § 222

Regulation: 47 C.F.R. § 64.2001 et. seq.

Request for CPNI Rulemaking Information: 96-115

Request for CPNI Compliance Certification: 06-36

Register of official publications: <https://www.federalregister.gov/>

White House announcement of Comprehensive Privacy Blueprint (under Dep't of Commerce):

www.ntia.doc.gov/blog/2012/white-house-unveils-new-comprehensive-privacy-blueprint

Consumer and Voice: Mapping the Mobile Marketplace <http://www.ftc.gov/reports/mobilemarketplace/mobilemktgfinal.pdf>.

Consent decree with Federal Trade Commission, published April 5, 2011, <https://federalregister.gov/a/2011-7963>

Research on mobile communications

www.pewresearch.org/pubs/1601/assessing-cell-phone-challenge-in-public-opinion-surveys.

Mobile Data Management on Mobile Devices | Pew Research Center's Internet & American Life Project:

www.pewinternet.org/Reports/2012/Mobile-Privacy.aspx

"Privacy Bill of Rights" <http://thomas.loc.gov/cgi-bin/query/z?c112:S.799>:

See *United States v. Maynard*, 615 F.3d 544, 557 (D.C. Cir. 2010)

Text sent via SMS on Aug. 30, 2012 to T-Mobile customers: <https://support.t-mobile.com/docs/DOC-2929?noredirect=true>

Marketing information on user data: <http://business.verizonwireless.com/content/b2b/en/precision/overview.html>

FCC's Authority to Regulate

FCC has statutory authority to regulate telephone privacy since 1934.

CPNI=Customer Proprietary Network Information

mobile privacy has been included since 2007

FCC considered Handsets but so far excluded them from CPNI order so far.

Arguing for Consumer Protection

the EFF (naturally)

Electronic Privacy Information Center (Initiated 2007 CPNI order covering mobile)

Center for Democracy and Technology

Center for Digital Democracy

Future of Privacy Forum

CA AG & Dept. of Telecommunications

Catholic Bishops (with other clergy)

Hispanic Technology & Telecommunications Partnership (HTTP)

private citizen

only 35 total comments

most discuss need for regulation rather than the form it should take.

Who Owns Malware?

Obviously the hacker does.

It's a bit hard to regulate hackers

Assignment of responsibility could be used as
incentive

Incentive to accountable carriers to provide better
security

Incentive for carriers to grant users control

Also Against Regulation

the usual advertising subjects:

Direct Marketing Association

Interactive Advertising Bureau

Pharm Industry Communications Committee

Consumer Banker Association

Nothing much new to offer