

Previewing Tomorrow's Location Privacy Hearing: GPS vs. Cell Tower Tracking

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Further Reading

Should the government need to get a search warrant before it tracks your cell phone's location? And should it matter whether or not that tracking is done with your phone's GPS chip, or based on data about which cell towers you're closest to?

We expect those will just be some of the key questions addressed by the House Judiciary Committee's Subcommittee on Crime, Terrorism, Homeland Security and Investigations when it convenes at 10 AM for a hearing on ["The Electronic Communications Privacy Act \(ECPA\), Part 2: Geolocation Privacy and Surveillance"](#) [2]. (For Hill watchers, another big ECPA event — the Senate Judiciary Committee's [consideration of a bill to update ECPA](#) [3] to require warrants when the government wants to seize your email or other private electronic communications — will be happening on the other side of the Capitol at 9:30 AM.)

The general topic of the House location hearing will be what kinds of legal process law enforcement must seek to compel telecommunications providers and other entities to produce location records of their customers. Current DOJ policy is to get a warrant when tracking a cell phone using Global Positioning System ("GPS") technology, but not to get a warrant when tracking a cell phone using information about which cell towers a phone has registered with or used (cell site location information or "CSLI").

CDT and the other members of [Digital Due Process](#) [4] — a coalition of major privacy organizations and tech companies pressing for ECPA reform — think that the law should be updated to require warrants regardless of the tracking technology used, and to strongly protect privacy against both GPS-based and CSLI-based tracking of mobile devices. Catherine Crump of the American Civil Liberties Union, which is part of the DDP coalition, will be taking that message to the House as one of the witnesses in tomorrow's hearing.

Another witness, Professor Matt Blaze, will be giving the technical background explaining why we take the position that CSLI-based tracking should be treated the same as GPS-based tracking. As Professor Blaze has [previously testified](#) [5], CSLI — like GPS data — can often be precise enough to locate people inside private spaces like their homes or offices—and this CSLI data is getting more precise every day. That's because the number of cell phone towers and smaller antennas is steadily growing, thus shrinking the size of the space that each tower serves. Indeed, there are now miniature cell sites called ["small cells"](#) [6] that serve — and can be used to locate you within — specific homes or buildings, even specific rooms or floors. And because the towers you use throughout a day will change as you move, there is no way for you, or the police, or the cell phone provider to accurately predict when your CSLI will reveal your location with a high or low precision, or inside or outside of a home or other private place.

Since cell data can be as precise as GPS data, and the privacy impact can be exactly the same, we think that legal protection against tracking should not turn on the type of technology used. It's all the same to cell phone users whether their privacy is violated using GPS or cell tower-based tracking, so it should be treated the same under the law, too. Thankfully, that is just what the bipartisan ["GPS Act"](#) [7] bill (H.R. 1312), introduced by Representative Chaffetz and co-sponsored by Subcommittee Chairman Sensenbrenner and Committee Ranking Member Conyers, would do: require warrants for location tracking regardless of the type of tracking technology.

In anticipation of the hearing, we are releasing two short briefing papers (in the sidebar at right) that describe the increasing precision of CSLI data. The first is a one-page executive summary of the issue with pointers to legal and policy support. The second is a brief technology backgrounder that goes into more technical detail as to how and why CSLI data is increasingly precise and raises serious privacy issues. We hope they'll be useful to the members of the Committee and to those of you who are following the issue.

As for tomorrow, I'll be there along with CDT's Free Expression Director Kevin Bankston, who will be live-tweeting via @KevinBankston. You might also want to tune in to @CenDemTech where our Campaigns & Communications Strategist Mark Stanley will be covering the Senate's ECPA meeting.

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Links:

- [1] <https://www.cdt.org/personnel/joseph-lorenzo-hall>
- [2] http://judiciary.house.gov/hearings/113th/hear_04252013.html
- [3] <http://www.judiciary.senate.gov/hearings/hearing.cfm?id=f45a5ed4ef88786f5d3774ff075af2fa>
- [4] <http://www.digitaldueprocess.org>
- [5] <http://www.crypto.com/papers/blaze-gps-20120517.pdf>
- [6] https://en.wikipedia.org/wiki/Small_cell
- [7] <http://beta.congress.gov/bill/113th-congress/house-bill/1312>