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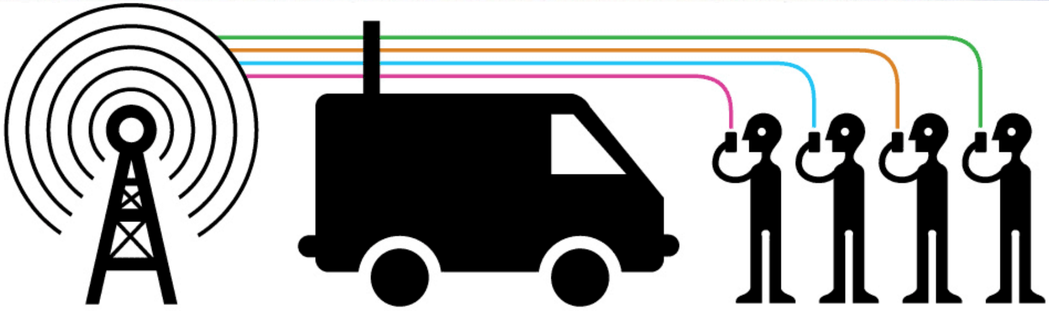

Cell Site Simulators

Cell-site simulators ("CSS"), also commonly known as IMSI catchers or Stingrays, are devices that law enforcement uses to try to locate specific suspects. CSSs masquerade as legitimate cell phone towers, tricking all phones nearby into connecting to the device instead of the tower. These devices can log the unique identifying numbers of all mobile phones in a given area and pinpoint the location of a specific number in real time with much greater precision than cell site location information that comes from the phone company.

However, because CSSs cause the phone to connect to the device rather than the cell tower, they ***actively interfere*** in communications between cell phones and towers for every phone in the impacted area. Additionally, data logged by CSSs can reveal intensely personal information about *anyone* with a phone in the affected area, not just the target of the operation

In December 2016, the House Oversight and Government Reform Committee investigated the use of CSSs and issued a bipartisan scathing report, criticizing the use of CSSs without uniform standards or policies.

How do they work?

- Cell phones automatically prefer the strongest cell tower signal in the area. Active CSSs masquerade as legitimate cell phone towers, tricking all phones nearby into connecting to the device instead of the tower.

- There is no way for a phone to be configured to avoid sharing its unique identifying number with a CSS. Also, some active CSS are reported to have the capability to intercept and log metadata, such as dialed phone numbers, as well as content, such as SMS messages and phone calls.

Other Problems

- No transparency: It is very difficult to tell from the cell phone itself whether its information has been captured by an IMSI catcher, and there's no notification that the phone's connection to the base station has been downgraded to an insecure connection.

  No consistent regulation/data protection/accountability: Very few states have laws on the books limiting police use of CSSs, access to the information collected and the period of storage, or mandating an accounting of CSS use.

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