

## Signaling Vulnerabilities in Wiretapping Systems

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Telephone wiretap and dialed number recording systems are used by law enforcement and national security agencies to collect investigative intelligence and legal evidence. In this talk, we show that many of these systems are vulnerable to simple, unilateral countermeasures that allow wiretap targets to prevent their call audio from being recorded and/or cause false or inaccurate dialed digits and call activity to be logged. The countermeasures exploit the unprotected in-band signals passed between the telephone network and the collection system and are effective against many of the wiretapping technologies currently used by US law enforcement, including at least some "CALEA" systems. Possible remedies and workarounds will be proposed, and the broader implications of the security properties of these systems will be discussed.

A pre-print of the paper, as well as audio examples of the countermeasures, can be found at <http://www.crypto.com/papers/wiretapping/>