

The FBI Needs Hackers, Not Backdoors

BY MATT BLAZE 01.14.13 8:00 AM

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Just imagine if all the applications and services you saw or heard about [at CES](#) last week had to be designed to be “wiretap ready” before they could be offered on the market. Before regular people like you or me could use them.

Yet that’s a real possibility. For the last few years, the FBI’s [been warning](#) that its surveillance capabilities are “going dark,” because internet communications technologies — including devices that connect to the internet — are getting too difficult to intercept with current law enforcement tools. So the FBI wants a more wiretap-friendly internet, and legislation to mandate it will likely be proposed this year.

But a better way to protect privacy and security on the internet may be for the FBI *to get better at breaking into computers*.

Whoa, what? Let us explain.

Whether we like them or not, wiretaps — legally authorized ones only, of course — are an important law enforcement tool. But mandatory wiretap backdoors in internet services would invite at least as much new crime as it could help solve.

Especially because we're knee deep in what can only be called a cybersecurity crisis. Criminals, rival nation states, and rogue hackers routinely seek out and exploit vulnerabilities in our computers and networks — much faster than we can fix them. In this cybersecurity landscape, wiretapping interfaces are particularly juicy targets.

Every connection, every interface increases our exposure and makes criminals' jobs easier.

We've Been Here Before

Two decades ago, the FBI complained it was having trouble tapping the then-latest cellphones and digital telephone switches. After extensive FBI lobbying, Congress passed the Communications Assistance for Law Enforcement Act (CALEA) in 1994, mandating that *all* telephone switches include FBI-approved wiretapping capabilities.

CALEA was justifiably controversial, not least because its requirement for "backdoors" across our communications infrastructure seemed like a security nightmare: How could we keep criminals and foreign spies from exploiting weaknesses in the new wiretapping features? Would we even be able to detect them when they did?

Those fears were soon borne out. In 2004, a mysterious someone — the case was never solved — [hacked the wiretap backdoors of a Greek cellular switch](#) to listen in on senior government officials ... including the prime minister.

Think this could only happen abroad? Some years ago, the U.S. National Security Agency [discovered](#) that every telephone switch for sale to the Department of Defense had security vulnerabilities in their mandated wiretap implementations. Every. Single. One.

Given these risks, you might think now's a good time to *scale back* CALEA and harden our communications infrastructure against attack.

But the FBI wants to do the opposite. They want to massively expand

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the wiretap mandate beyond phone services to internet-based services: instant messaging systems, video conferencing, e-mail, smartphone apps, and so on.

Yet on the internet, the threats — and consequences of compromise — are even more serious than with telephone switches. Not only would wiretap mandates put a damper on innovation, but the FBI is effectively choosing making it easier to solve some crimes by opening the door to other crimes.

Are these really the only options we have? No.

Bugs Are Backdoors, Too

If it turns out that important surveillance sources really are going dark — and that's a big if (it's not only on TV that modern tech already [makes it easier to surveil](#) suspects) — there's no need to mandate wiretap backdoors.

That's because there's already an alternative in place: buggy, vulnerable software.

The same vulnerabilities that enable crime in the first place also give law enforcement a way to wiretap — when they have a narrowly targeted warrant and can't get what they're after some other way. The very reasons why we have Patch Tuesday followed by Exploit Wednesday, why opening e-mail attachments feels like Russian roulette, and why anti-virus software and firewalls aren't enough to keep us safe online provide the very backdoors the FBI wants.

Since the beginning of software time, every technology device — and especially ones that use the internet — has and continues to have vulnerabilities. The sad truth is that as hard as we may try, as often as we patch what we can patch, no one knows how to build secure software for the real world.

Instead of building special (and more vulnerable) new wiretapping interfaces, law enforcement can tap their targets' devices and apps directly by exploiting existing vulnerabilities. Instead of changing the law, they can use specialized, narrowly targeted exploit tools to do the tapping.

In fact, targeted FBI computer exploits are nothing new. When the FBI placed a “keylogger” on suspected bookmaker Nicky Scarfo Jr.'s computer in 2000, it allowed the government to win a conviction from decrypting his files after gaining access to his PGP password. A few years later, the FBI developed “CIPAV,” [a piece of software](#) that enables investigators to download such spying tools electronically.

The sad truth is that no one knows how

Exploits aren't a magic wiretapping bullet. There's engineering effort involved in finding vulnerabilities and building exploit tools, and that costs money.

And when the FBI finds a vulnerability in a major piece of software,

The FBI wants to massively expand the wiretap mandate beyond phone services to internet-based services.

to build secure software for the real world.

shouldn't they let the manufacturer know so innocent users can patch? Should the government buy exploit tools on the underground market or build them themselves? These are difficult questions, but they're not fundamentally different from those we grapple with for dealing with informants, weapons, and other potentially dangerous law enforcement tools.

But at least targeted exploit tools are harder to abuse on a large scale than globally mandated backdoors in *every* switch, *every* router, *every* application, *every* device.

While the thought of the FBI exploiting vulnerabilities to conduct authorized wiretaps makes us a bit queasy, at least that approach leaves the infrastructure, and everyone else's devices, alone.

Ultimately, not much is gained — but too much is lost — by mandating special “lawful intercept” interfaces in internet systems. There's no need to talk about adding deliberate backdoors until we figure out how to get rid of the unintentional ones ... and that won't be for a long, long time.

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