Twitter Thread by David Evans

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Years before Andy Grove was attributed with the phrase:

"Whatever can be done, will be done"

A lot of us technologists assumed this was the case anyway.

It's a truism.

What if we could track every person on the planet in real time?

Or at least everyone in a major city

■■

KEY FINDINGS:

INSTALLATION PROTECTION

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Marine Corps Installations exist to assure warfighter readiness and Installation Protection supports this goal by protecting and enabling critical assets (internal and external) for base operations to support the readiness mission. Assets on an installation are categorized as information, people, infrastructure, and equipment, while most threats to these assets can be categorized into data loss, data containment, intrusion, and insider threats. Many threats will be constant today and in the future, while other threats are only just emerging or will only be known in the future as technology, environment, communities, and culture evolve.

Installation protection is a continuous cycle:

- Preparedness
- Monitoring
- Responsiveness
- Resiliency

As attendees re-imagined what an installation would look like in the future, they made assumptions to help consider potential assets and threats. A Base of the Future will:

- Be energy independent, with an ability to operate in "island mode" disconnected from the public grid
- Employ advanced technology (including AI, drones, and robotics)
- Serve as a knowledge hub that can attract industry, academia, and government collaboration
- Be decentralized and collaborative with communities to provide all non-mission critical services
- Command unmanned logistical systems
- Be dedicated solely to warfighter readiness

VISION OF THE FUTURE:

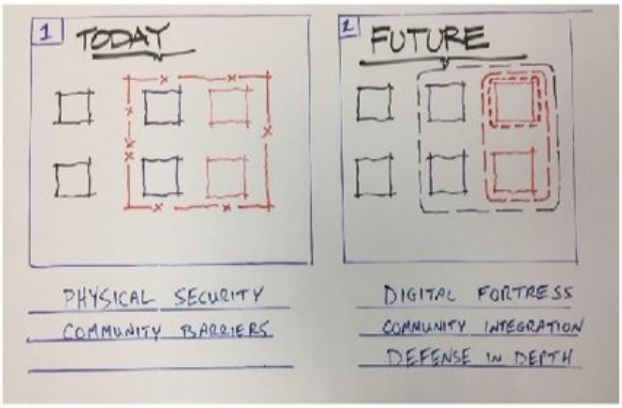

Figure 2: Installation Protection Vision of the Future

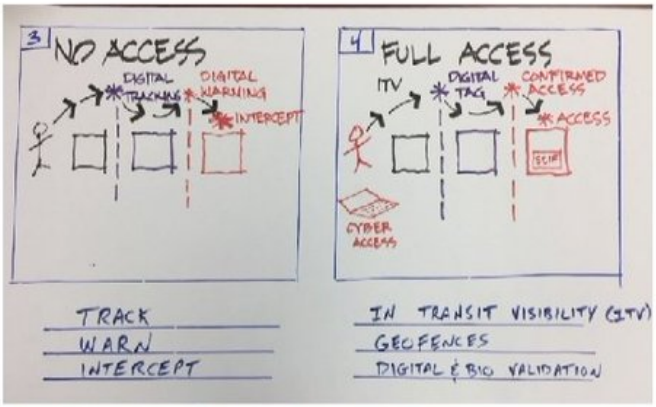

Figure 3: Installation Protection Vision of the Future

As the Installation Protection Working Group envisioned protection for the BoF, participants focused on leveraging current and future technologies to optimize base access control. The current state of technology should allow Marine Corps Installations within five years to transition to:

- Moving Support Services to the local community (such as housing, medical, logistics, and other community services) through partnerships
- Using Smart ID's with existing technology for facial recognition and retinal scan
- Employing an "EZ Pass"-like system for daily commuters
- Maintaining total visibility usage across the Enterprise (Physical &Cyber) using digital and bio validation

As technologies evolve and mature, the Marine Corps should increasingly adopt them into Installation Protection practices, incorporating advanced encryption (i.e. Blockchain) for identity and data validation; geofencing, non-lethal weapons, robotics, AI, and drones for threat response and deterrence; and advanced training capabilities (e.g. virtual reality and holodecks) for civilians and Marines alike.

So, given someone has this idea.

Then the only question is can it be done.

Well, we're already installing all the tech to do this for autonomous vehicles, drones and smart city infrastructure.

It really wouldn't be a huge leap to do that for people.

But how might that be possible ■

Sure we can already do it with phones right, but not everyone has a phone and sometimes the batteries die blah blah.

Could we do it in a way that it was difficult to circumvent, and always active?

Well, maybe we could if we put our thinking caps on about the problem.

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Now I'm going to enter the wild world of wild speculative futurism, so take everything else with a pinch of salt ■

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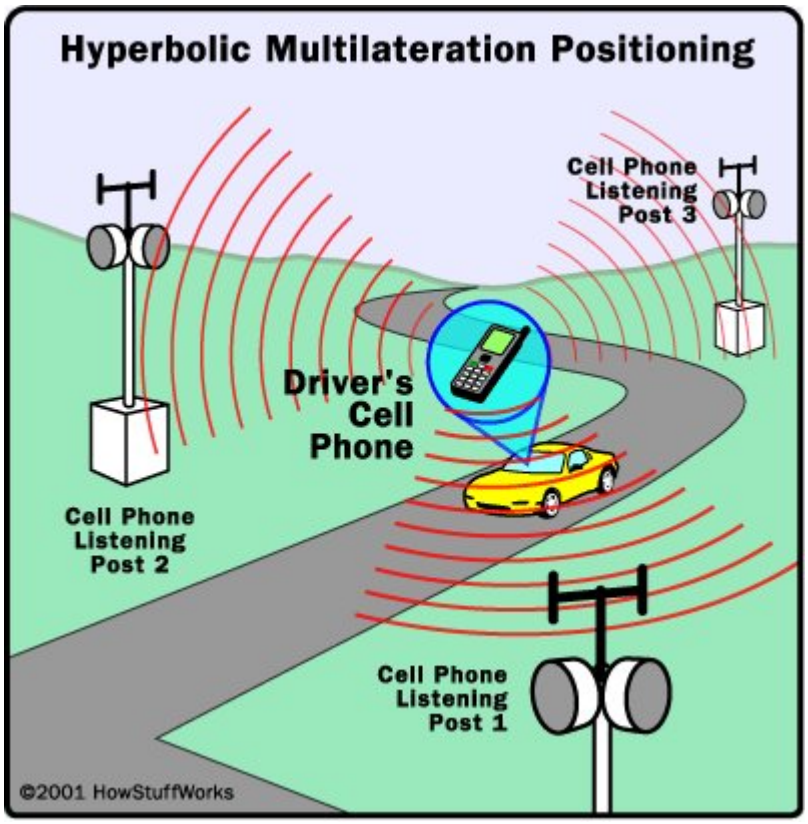
Turns out cell phone towers pinpoint the location of your phone as part of how they work.

And then as you move around you switch from one tower to another.

I think most people get this.

Something like the image below



But screw cell phones, we are in the future here!

Can we get future cell towers to track individuals??? ■

Well maybe this little baby has some legs...

An 85μm THz spectrum cavity resonator that can be be manufactured so that they are tuned to different resonant frequencies.

10.1063/5.0007590

Open

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High-Q metamaterials based on cavity mode resonance for THz sensing applications

AIP Advances 10, 075014 (2020);
https://doi.org/10.1063/5.000759

Zizheng Liu[1], Luyao Wang[1], Ming Hua[1], [illegible] Liu[1], Fuyue Qian[1], Guangyin Xie[1], Yafei Ning[1], Yanpeng Shi[1,a)], Xiaodong Wang[2], *and* Fuhua Yang[2]

Okay so if we stuck a bunch of these under the skin of an individual, and some of them are tuned to one frequency and some others are tuned to another frequency, you could make up kind of a unique identifier for that person, right.

Similar to an RFID that and totally passive.

All we now is to read them as they move around .

But in this hypothetical future, it just so happens we have many base stations everywhere, even inside our homes.

And these stations form a mesh network with each other and able to work in the terrahertz field of the spectrum.

The base stations could send out a
RF signals that match the resonant frequencis of the sub-miniature implanted cavity resonators under the skin.

If the frequency matched, the tiny resonator would 'chirp' like a bell ringing.

This could be read back and position triangulated.

Assuming you had enough base stations, and a population that had some of these little resonators, it seems the technology is certainly plausible.

And you know what Andy Grove said...

Wouldn't this be a really awesome way to geofence criminals like YOU!

BWAHAHAHA.

Only kidding, I'm a good guy ■

@threadreaderapp please unroll