

The Invisible Threat Layer: Harnessing AI and Practical Physics to Secure Hardware for the Long Game

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About me...

- Engineer, “In cyber” since 1991.
- Lead cyber operations, unit 8200.
- Founded the 1st IoT security.
- Founded the 1st automotive security.
- CEO and co-founder of Sepio since 2016.
- Israeli, Lives in MD, Husband & Dad...

The state

1. The ever-las
2. How much y
3. Relevancy n



Brian Proctor · 2nd
OT Cybersecurity Enthusias...
1w

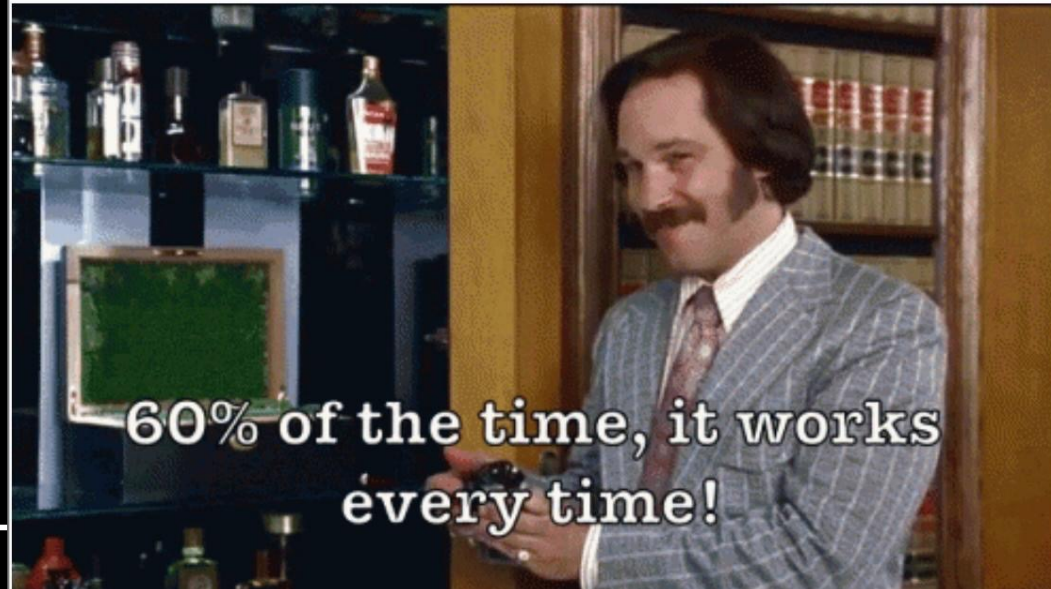
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Them: "We have a mature OT security program"

Me: "Awesome, tell me about it. What have you done?"

Them: "We have 40% visibility in 15% of our locations"

Me: Thinking 🤔



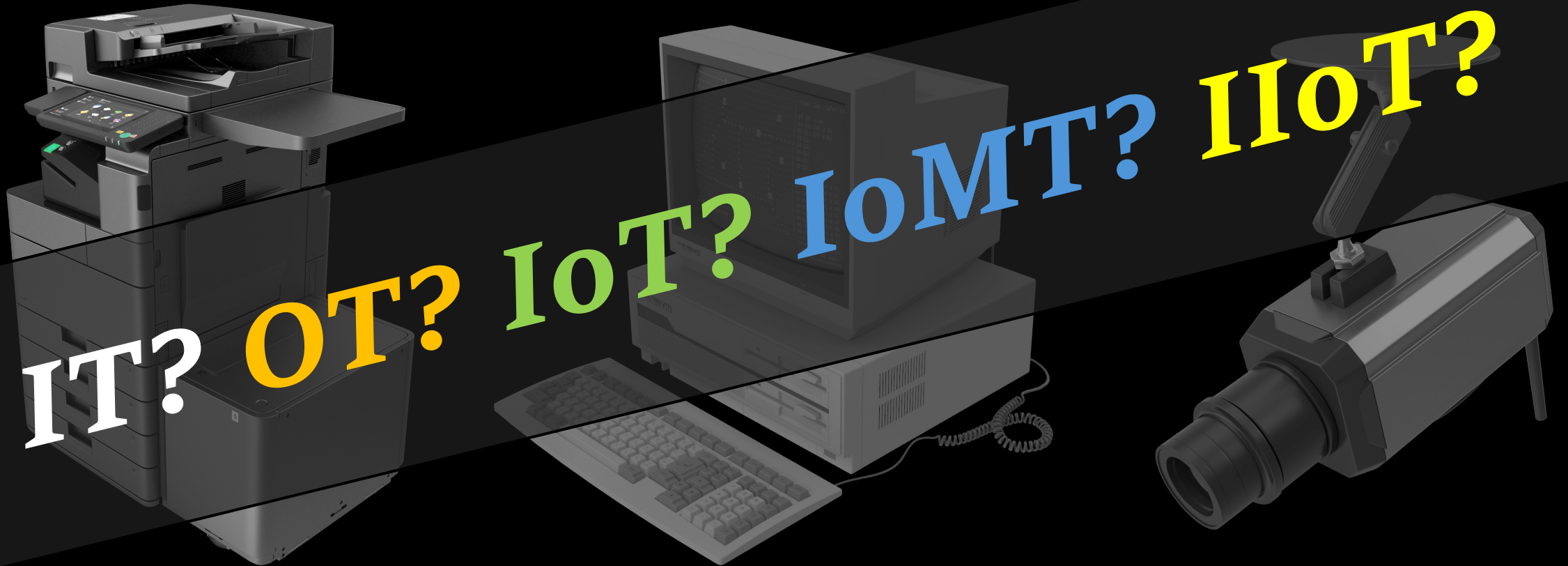
security puzzle.
ected devices?
sed.

Plenty of security solutions and yet..

1. What devices do I have?
2. What is the risk?
3. Where are these devices?
4. Passive traffic monitoring or active discovery?
5. Segmented networks? On-prem/cloud-based?
6. Converged networks? Privacy concerns?

70% coverage

What are these?



And what about these?

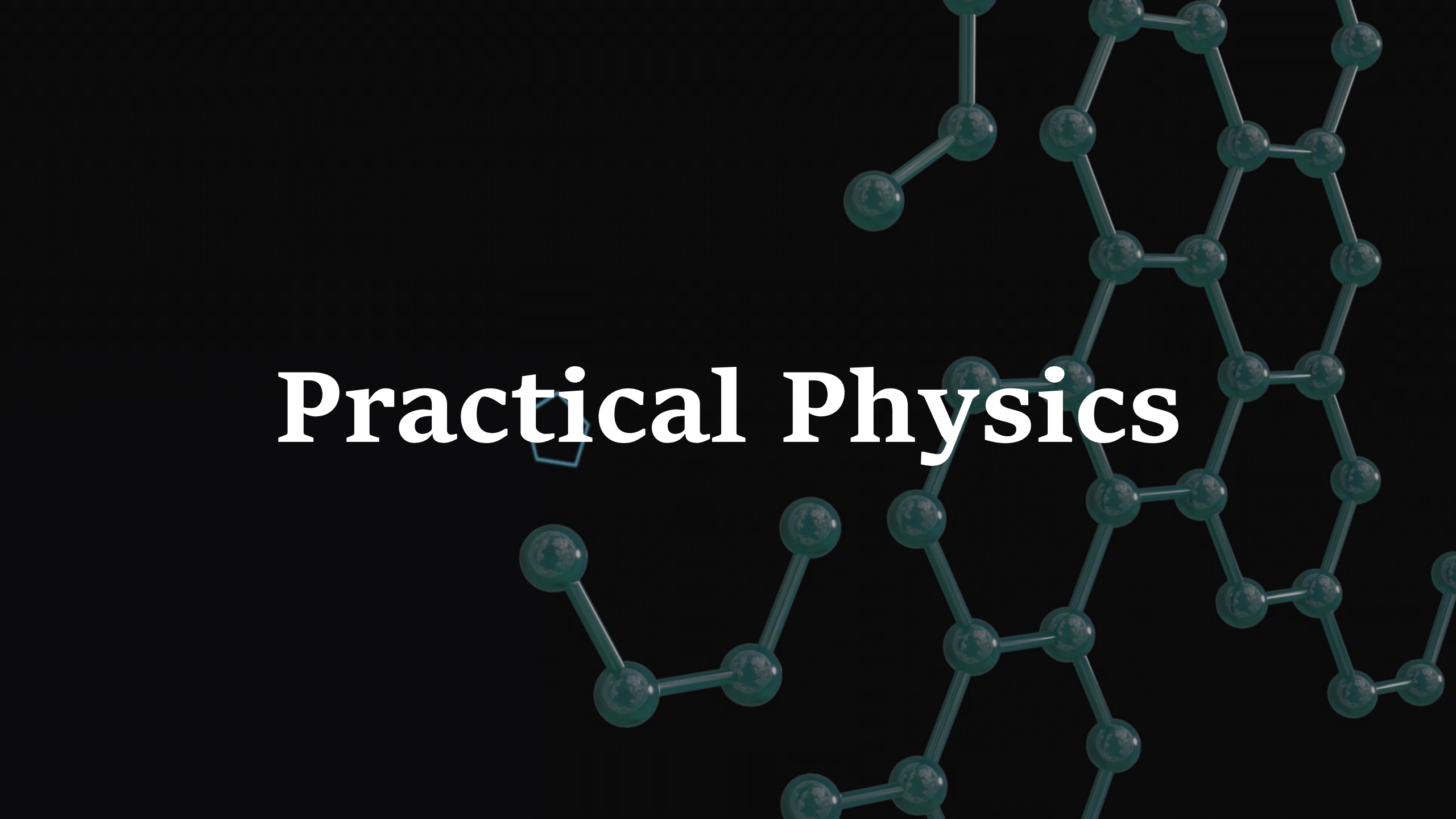
Spoofed devices?

Man-In-The-Middle attacks?

Dormant devices?

Hardware implants?

Vulnerable devices (exploits)?



Practical Physics

The hard (but correct) way

1. Focus on connectivity and not on activity.
2. Fully passive and based on non-privileged metadata.
3. A new single source of truth.
4. Detects advanced attack scenarios.
5. Quick and easy to deploy.

100% coverage

Asset DNA

OSI LAYERS

APPLICATION
PRESENTATION
SESSION
TRANSPORT
NETWORK
DATA LINK
PHYSICAL

Protocol distribution

IP Address

MAC Address, VLANs, DP,
Packet Distribution, PoE...

Voltage, Current, Slope,
Impedance, Jitter, Noise Level...

Harvesting DNA

- Utilizing existing hardware.
- Cleaning electrical noise.
- Building a global data lake.



Harnessing AI

Smarter, Intuitive, Expert...

- Predicting device connectivity and behavior.
- Autopiloting policies and actions.
- Auto-generating views and reports.
- A layer of what “makes sense or not”.

Thank you.



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