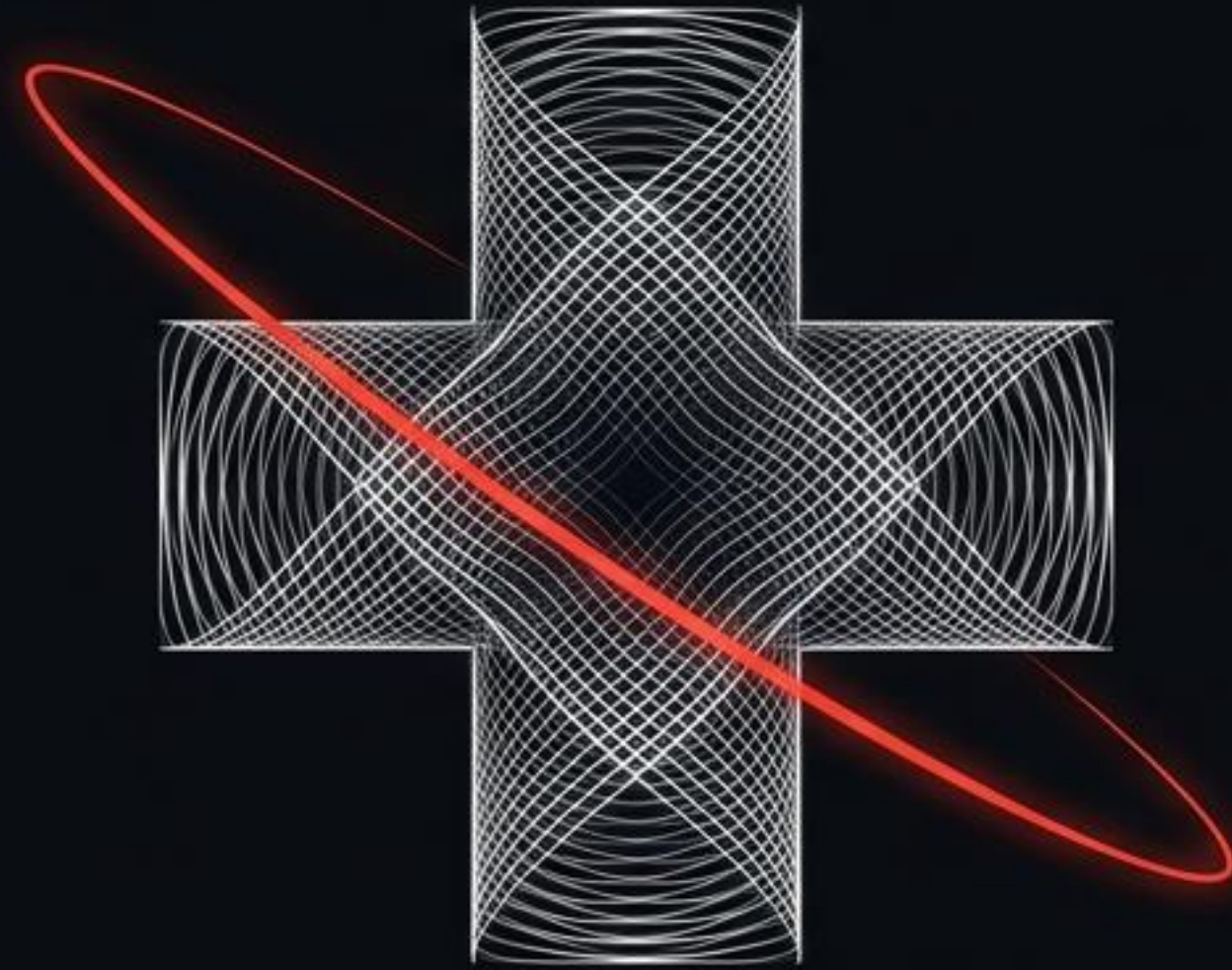




The 10-Year Countdown

Preparing Medical Device Infrastructure for the Post-Quantum Era



Hi, I'm Arthi — AI Educator, Builder & Trusted Voice in AI.

Whether you're learning AI for the first time or building something real, I'm here to help you cut through the noise and move forward with clarity and confidence.

Educator · Speaker · Builder · Community-led AI





[thearthiaicollective.co](https://thearthiaicollective.com)

The Arthi AI Collective is not an agency or a course platform.
It's a place where AI is translated, tested, and applied — so people don't just learn AI, they start using it.

Translate

Breaking down complex AI ideas into language people can actually think with.

Build

Creating practical AI tools and experiments that solve real, often ignored problems.

Enable

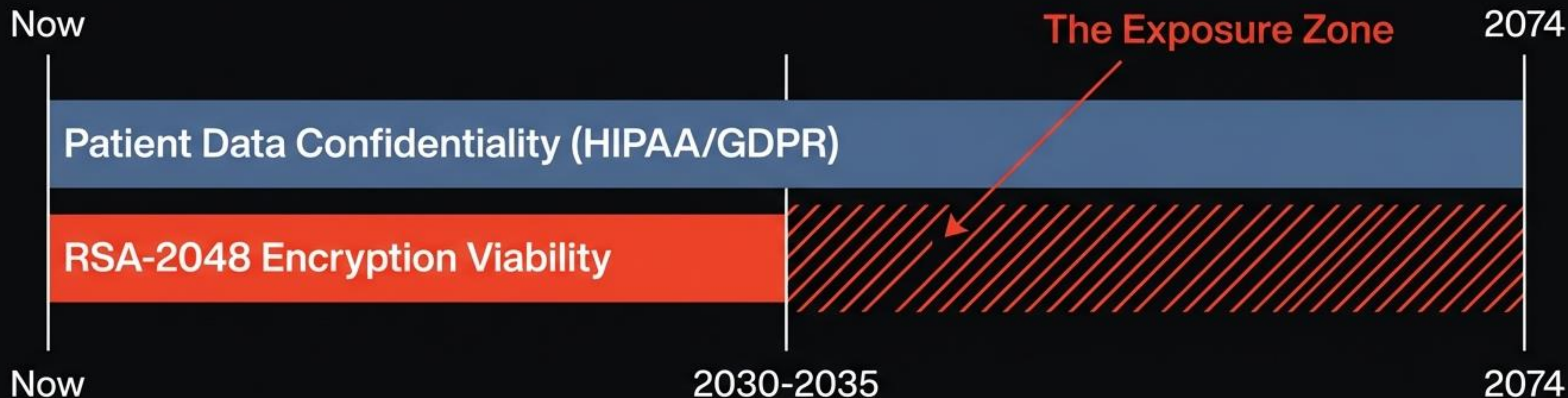
Helping individuals and teams adopt AI with confidence, not fear.



How many of you have patient data that needs to remain confidential for the next 50+ years?



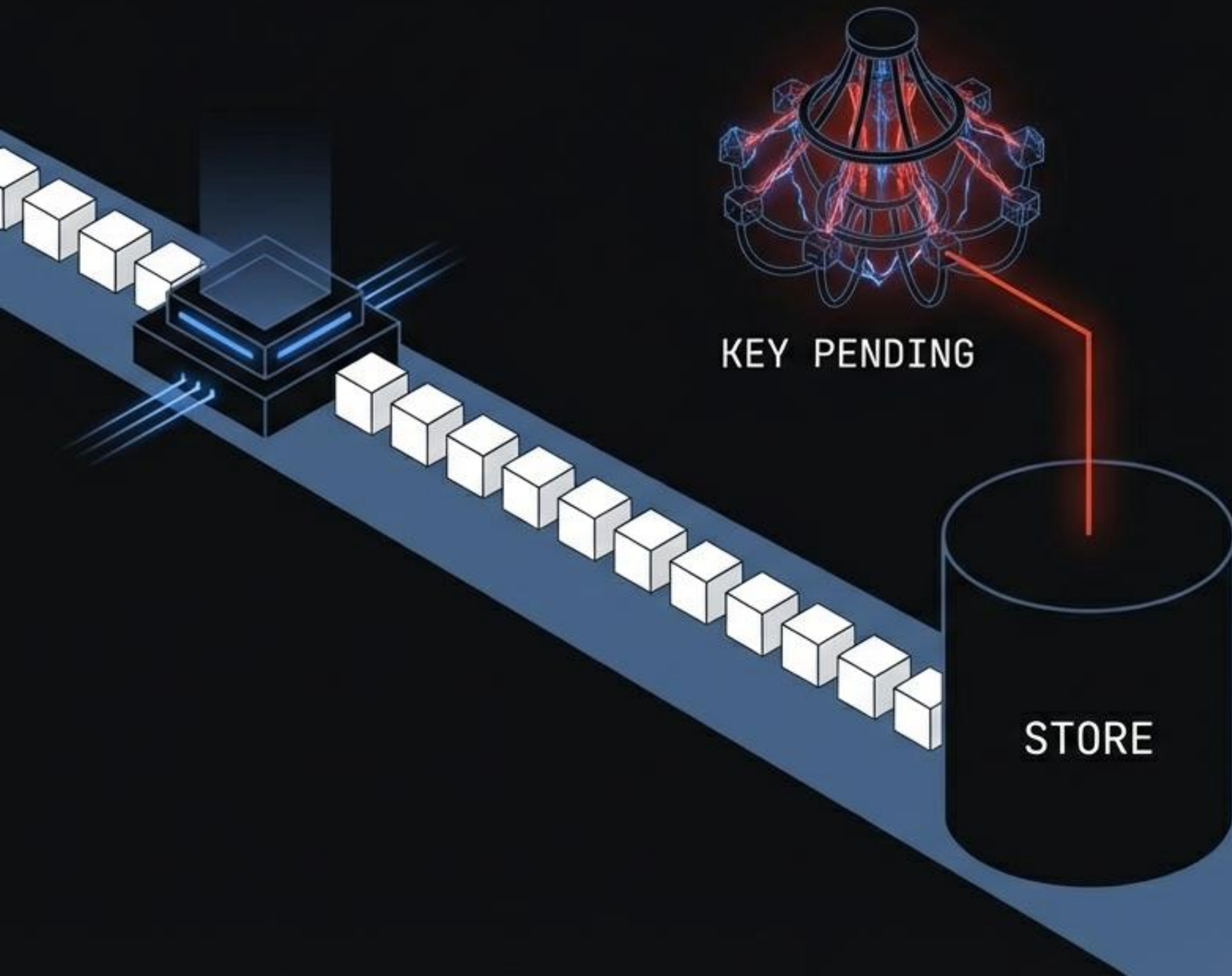
Your Data Needs to Live Longer Than Your Encryption Can Protect It



RSA-2048 currently protects 94% of medical devices.



The Threat is Retroactive



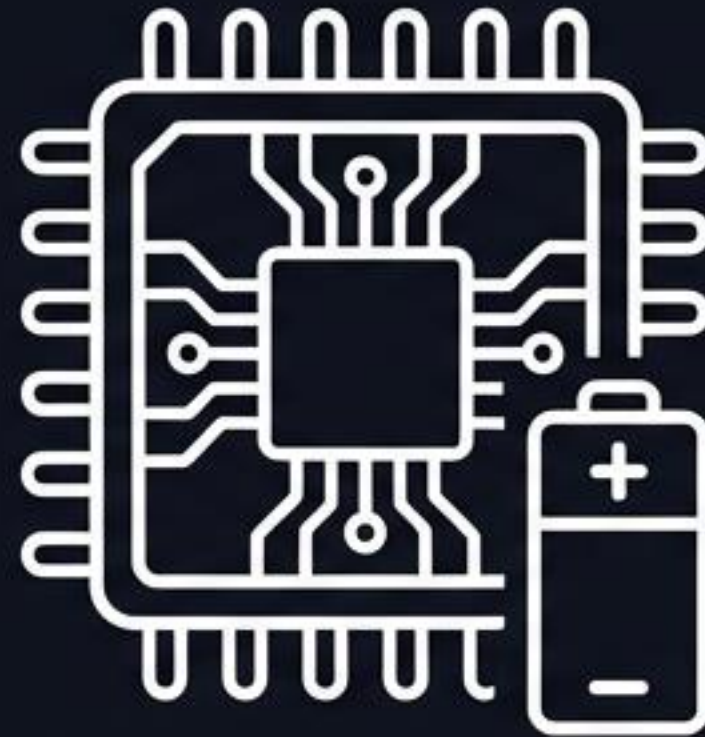
Harvest Now: Nation-state actors are collecting encrypted traffic today.

Decrypt Later: Betting on the quantum breakthrough.

Medical Devices Are Not Servers



**The Clock:
10+ Year Lifecycle**



**The Brain:
Constrained Compute**



**The Randomness:
Low Entropy**

The challenge: Running hybrid transition cryptography on hardware not built for it.

Why Classical Crypto Breaks

Classic Complexity (RSA)



Factoring Integers = Hard

Quantum Advantage (Shor's Algorithm)



Period Finding = Instant

Danger Threshold: >4,000 Logical Qubits



Lattice-Based Cryptography is the New Standard

Key Exchange

CRYSTALS-Kyber

Parameter: Kyber768



Signatures

Dilithium

Parameter: Dilithium3



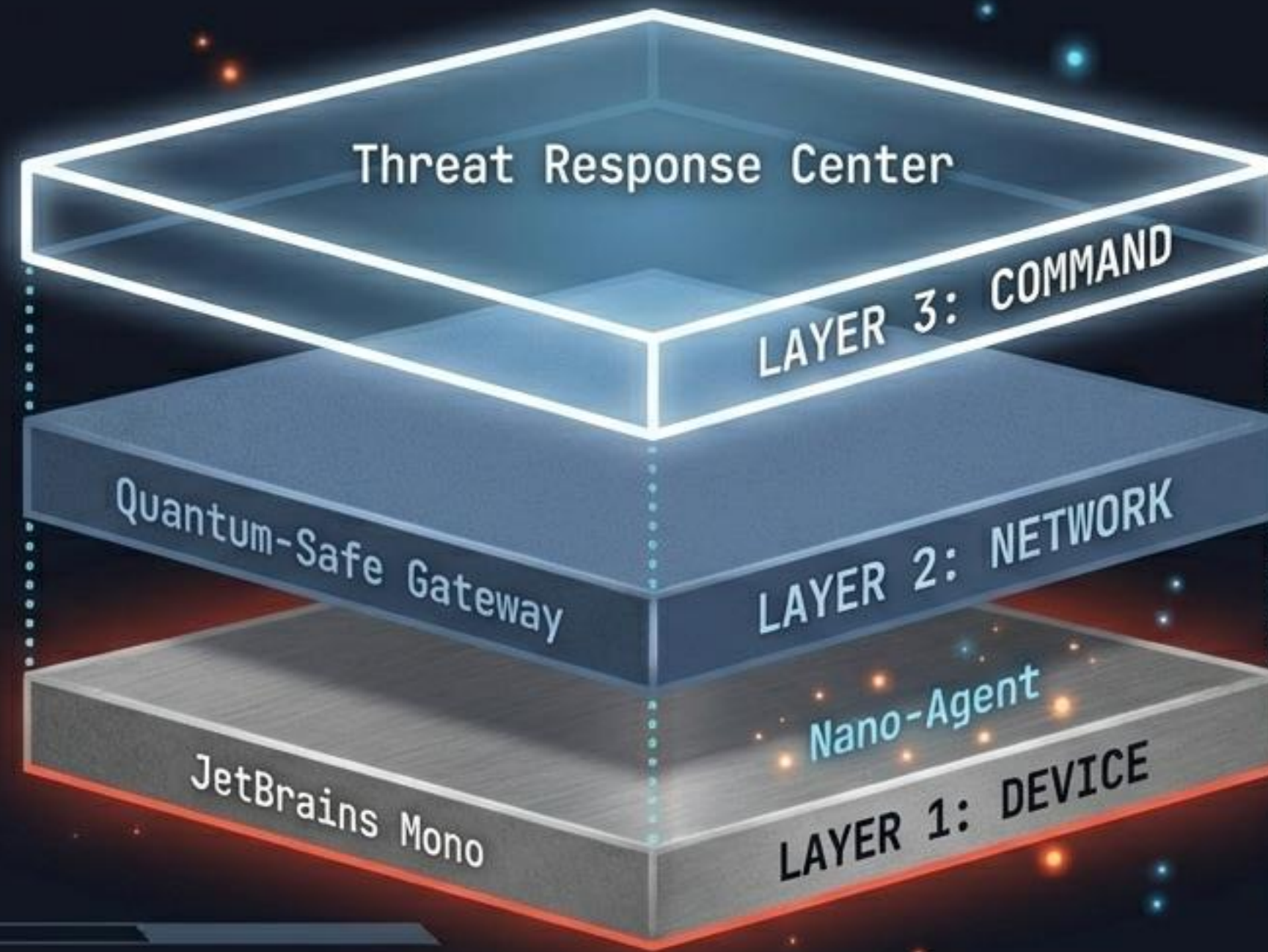
Selected for the sweet spot of security and performance on constrained hardware.

You Cannot Fix a Broken Tunnel Through the Broken Tunnel



If the channel is compromised, the remediation keys are compromised instantly.

A Unified Post-Quantum Command Center



The Break-Glass Protocol

Physics-based security. The key is never transmitted wirelessly.



Network Dies. Heart Keeps Beating.

Autonomous Lobotomy Mode



NETWORK: DISCONNECTED

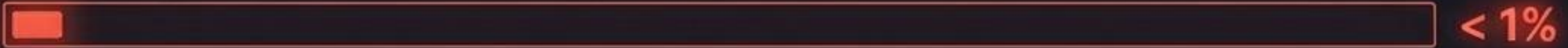


DEVICE: THERAPY ACTIVE

The Entropy Tax & Performance

Utilizing proactive entropy monitoring and session key caching to minimize handshake frequency.

Battery Impact



CPU Overhead



Visibility is the First Step

≡ CliniQbit Fleet View



ACTIVE DEVICES:

412



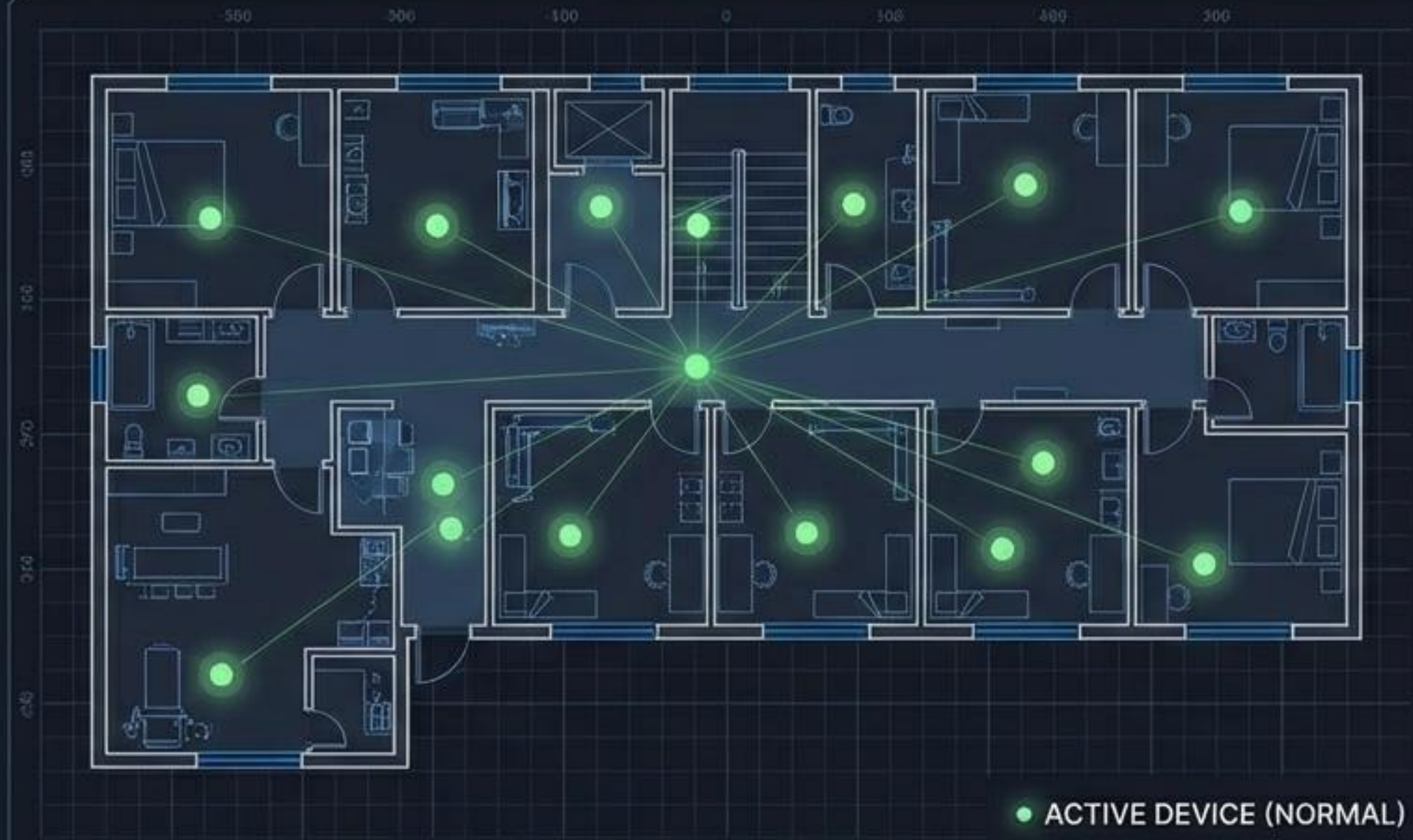
QUANTUM
READINESS:

95%



THREAT LEVEL:

LOW



● ACTIVE DEVICE (NORMAL)

Autonomous Defense in <50ms

CliniQbit Fleet View

ACTIVE DEVICES:

412

QUANTUM
READINESS:

95%

THREAT LEVEL:

HIGH



Compliance as a Byproduct of Architecture

Automated audit trails and crypto-agility built-in.



We Are Building the Post-Quantum Shield



Join our Design Partner Cohort

• Email : ceo@theearthiaicollective.com

CliniQbit

