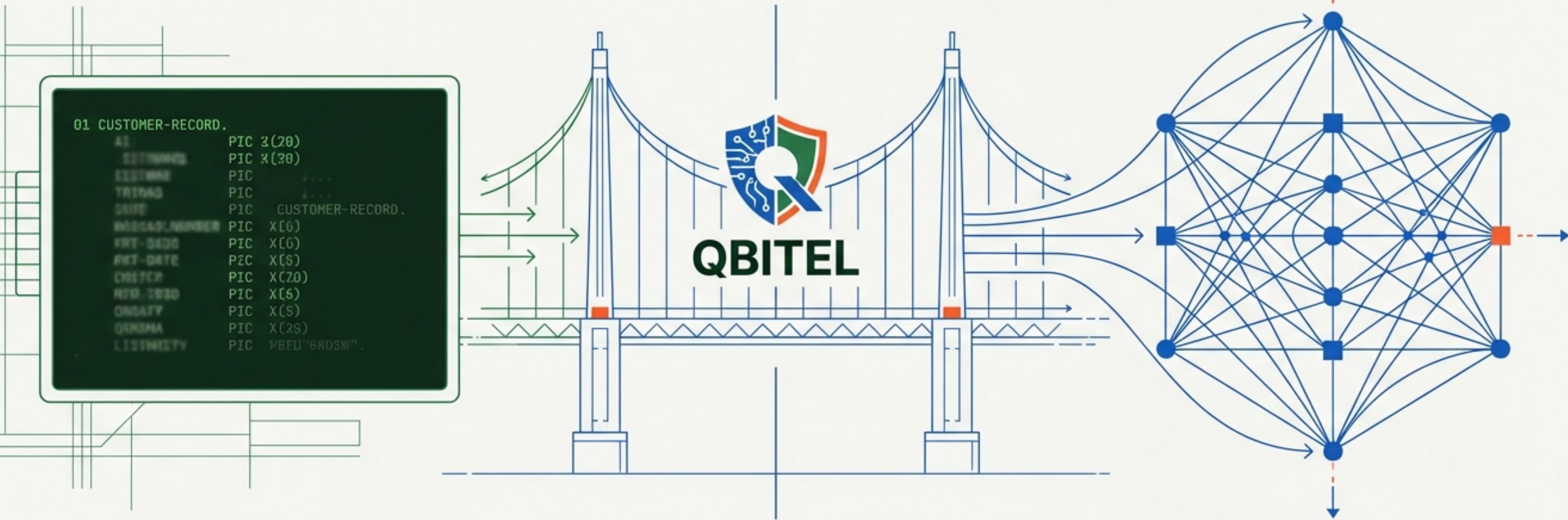


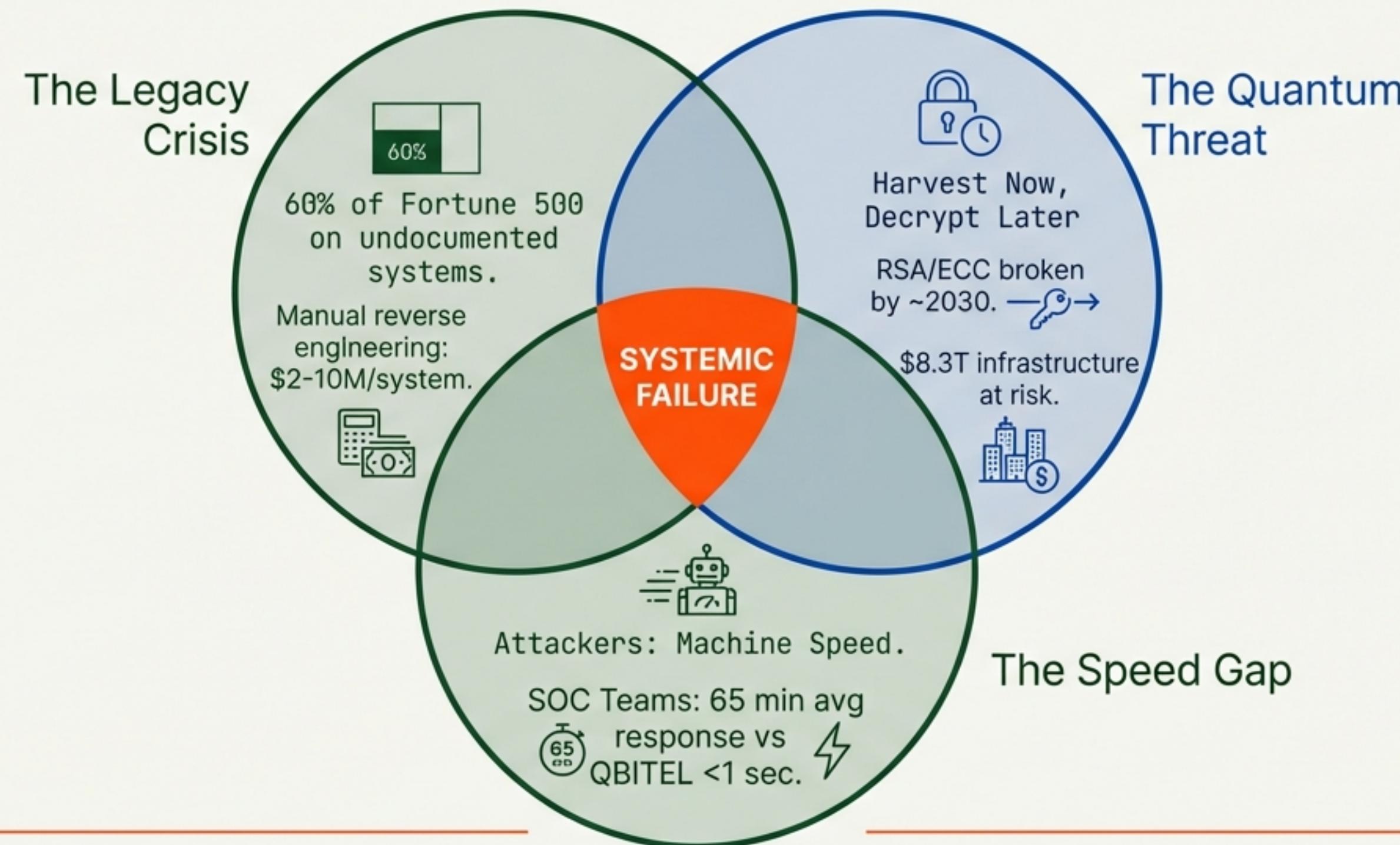
QBITEL Bridge: The Quantum-Safe Future for Legacy Systems

Discover. Protect. Defend. Autonomously.



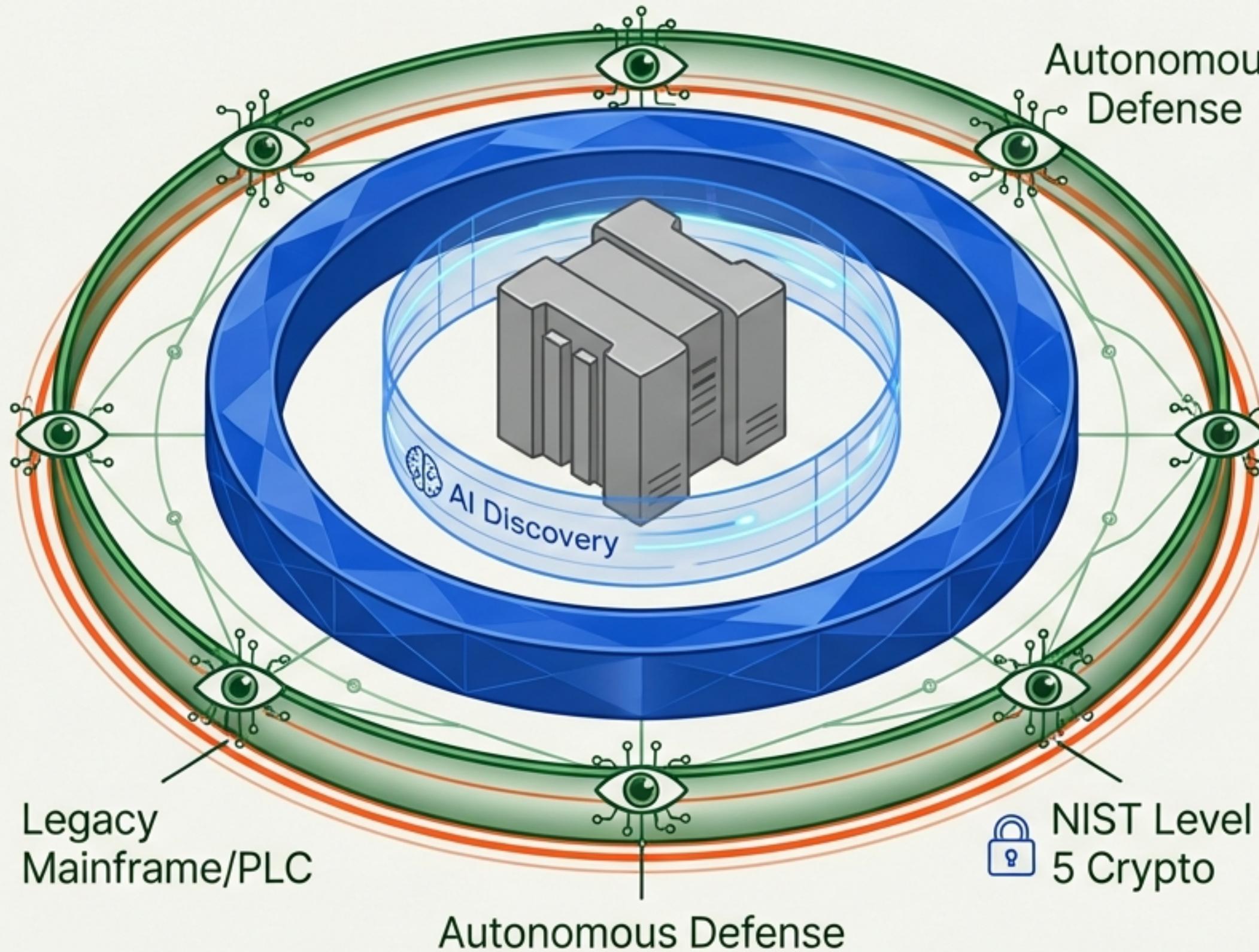
The only platform for AI-powered, quantum-safe modernization.

Three Fatal Weaknesses Converging on the Global 2000



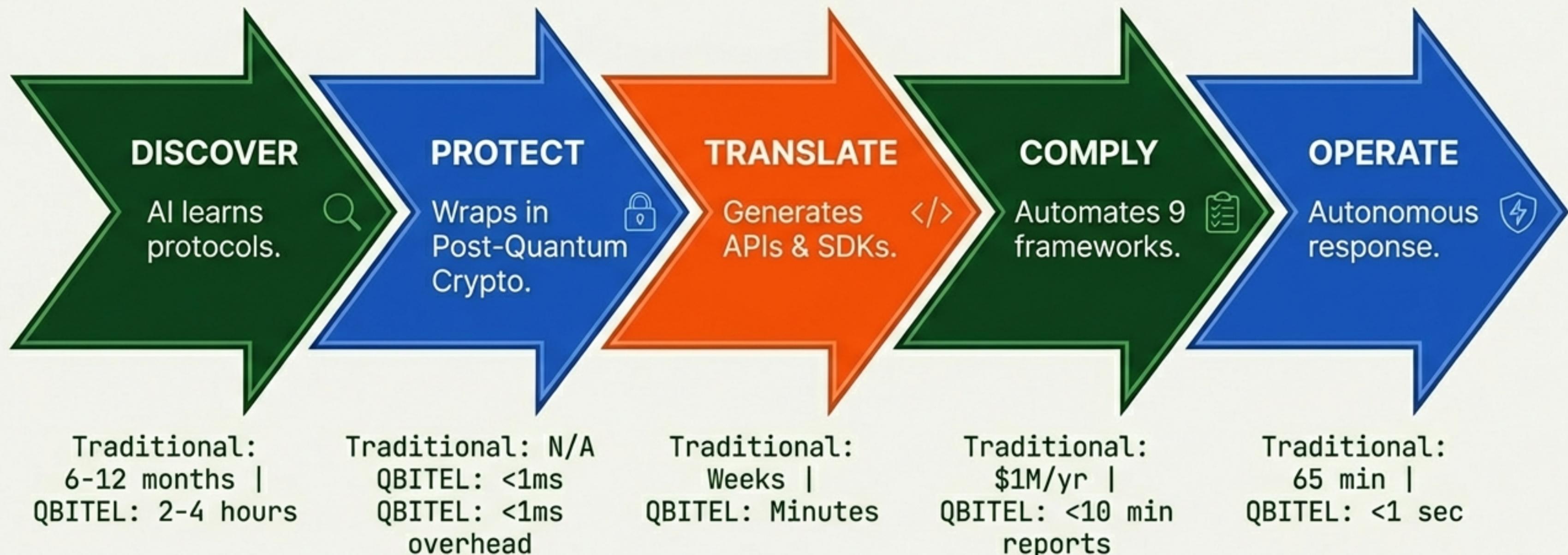
Manual modernization is too slow. Traditional security is too reactive.
The status quo is existential risk.

A Paradigm Shift: AI-Powered, Quantum-Safe Modernization



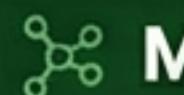
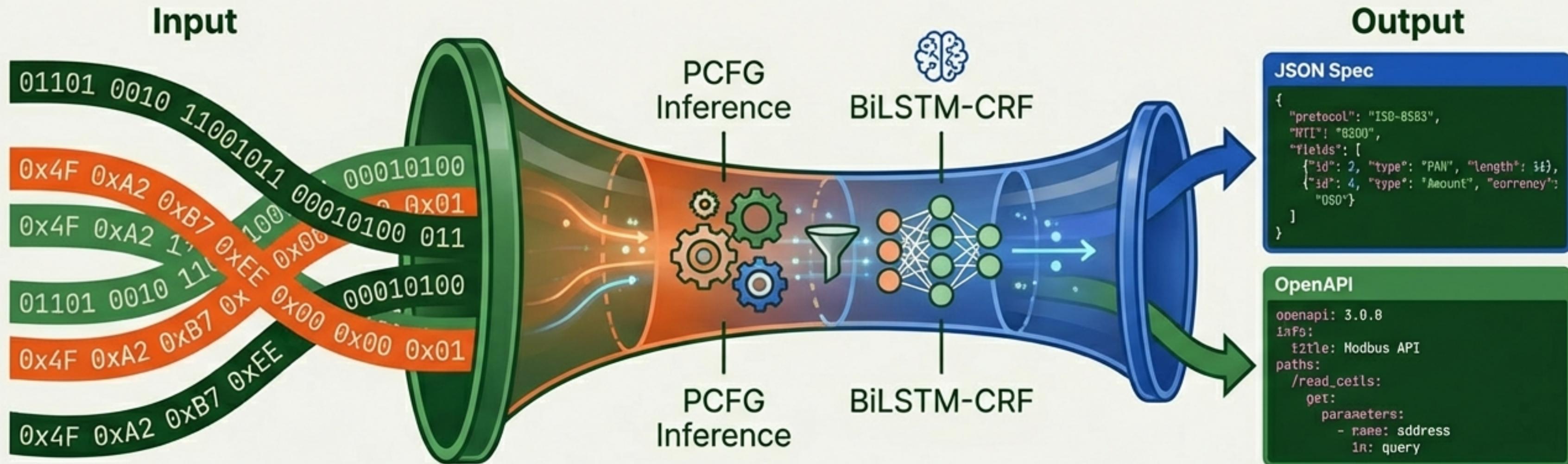
- ✓ 1. **No Rip-and-Replace:** Works on COBOL mainframes, SCADA PLCs, and medical devices.
- ✓ 2. **Zero Downtime:** Passive network-layer deployment.
- ✓ 3. **Air-Gapped Ready:** Fully autonomous on-premise LLM (Ollama). No cloud dependency.

From 'Black Box' to 'Fort Knox' in Five Automated Steps



The Legacy Whisperer: AI Protocol Discovery

Reverse-engineering unknown protocols from raw network traffic with 89%+ accuracy.



Methodology:

Probabilistic Context-Free Grammar + Deep Learning.



Performance:

Discovers ISO-8583, Modbus, COBOL in 2-4 hours. 10,000 msg/sec throughput.

NIST Level 5 Protection. Available Today.

Protecting against the “Harvest Now, Decrypt Later” threat and the 2030 Quantum Cliff.

Present



Adversaries
Harvesting Data

QBITEL PQC Shield



2030

Quantum Cliff

RSA/ECC
Encryption Broken

Tech Stack

Key Encapsulation:
ML-KEM (Kyber-1024)
Signatures:
ML-DSA (Dilithium-5)

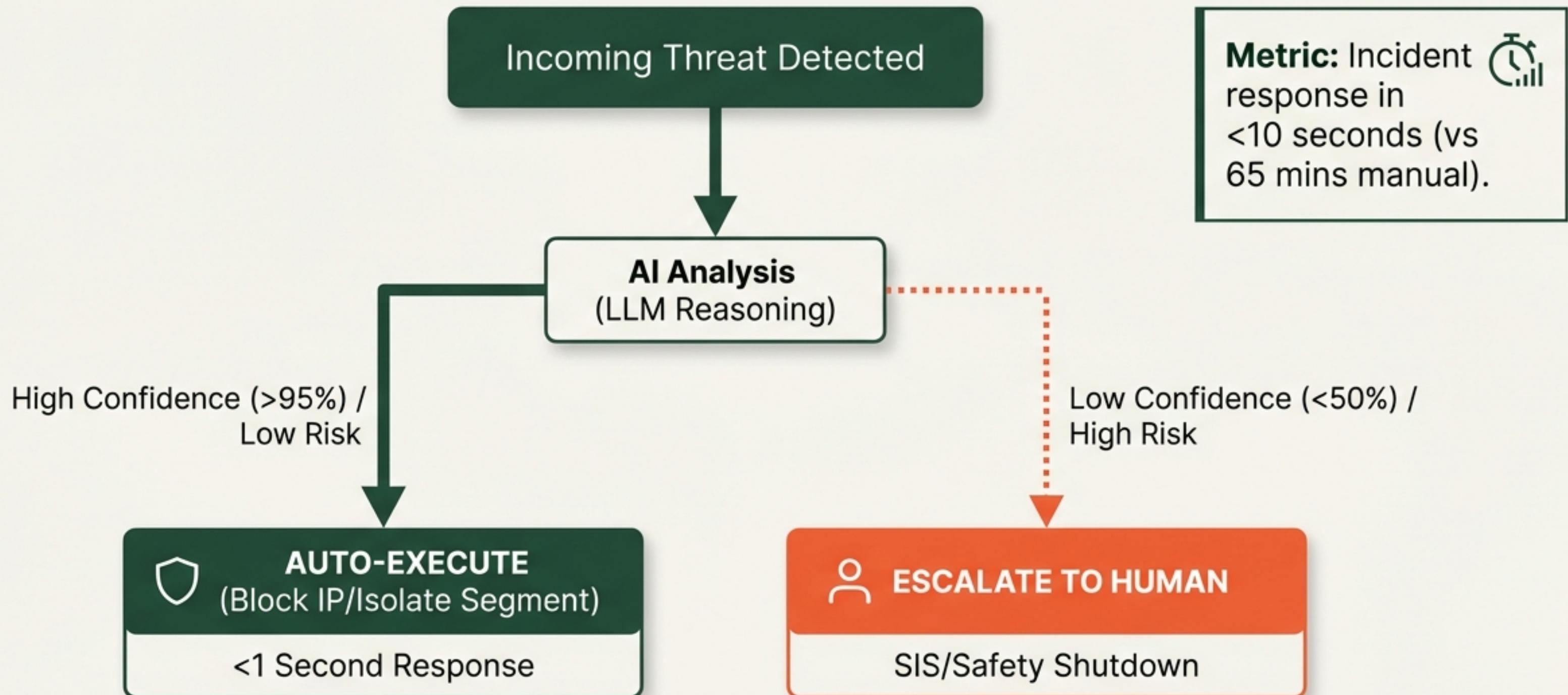
Domain Optimization

Banking: 10K+ TPS
Healthcare: 64KB RAM devices
Aviation: 600bps bandwidth

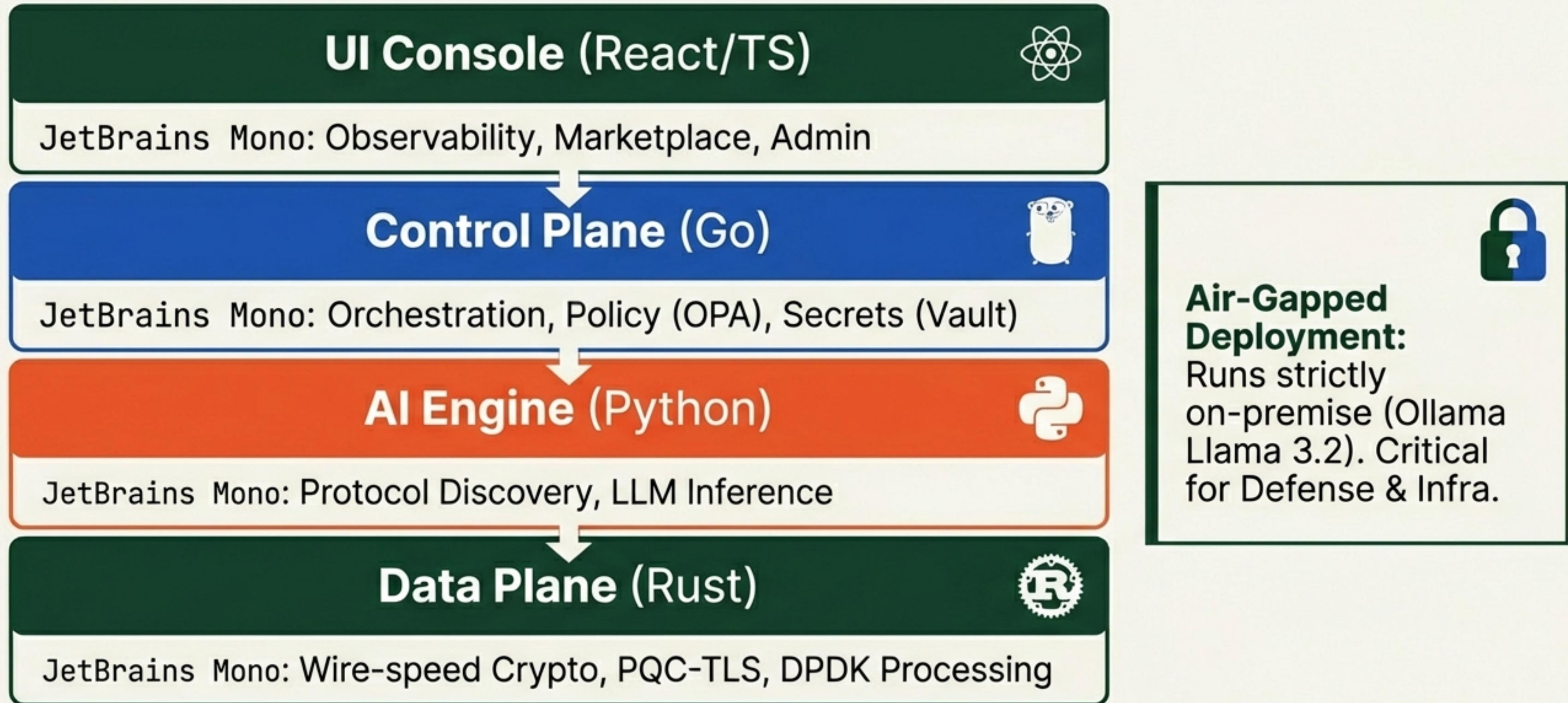
**<1ms
Encryption
Overhead**

Machine-Speed Defense for Machine-Speed Attacks

Moving from Playbooks to Reasoning. 78% Autonomous Decisions.



Four-Layer Polyglot Architecture



A Complete Ecosystem for Modernization



Translation
Studio



Agentic AI
Security



AI Protocol
Discovery



Compliance
Engine



Threat
Intelligence

The Protocol Marketplace

The “App Store” for legacy systems.

1,000+ pre-built adapters
(Banking, SCADA, Healthcare).
70/30 creator revenue split.



Agentic AI
Security



Zero Trust
Architecture



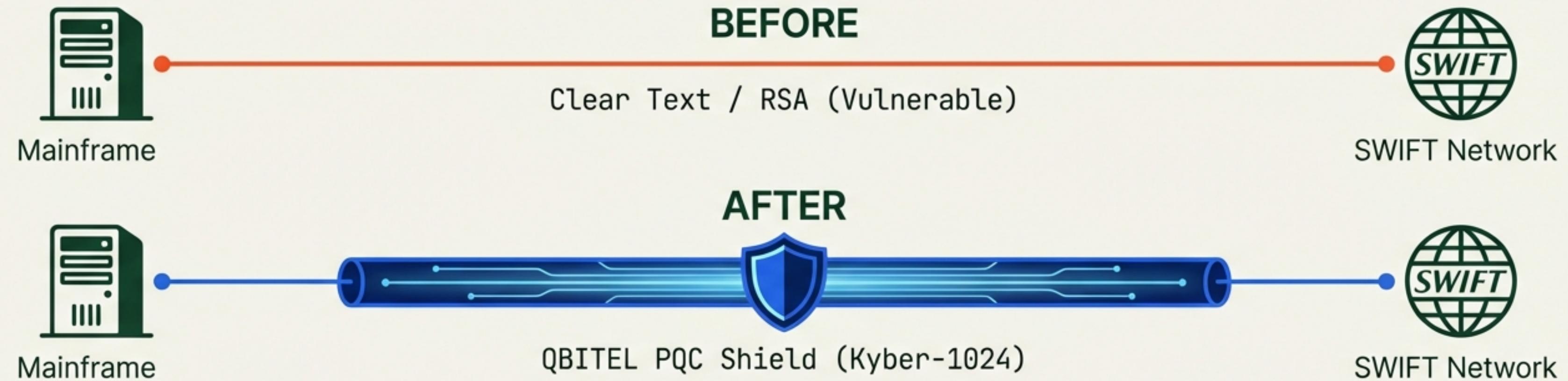
Post-Quantum
Crypto



Cloud-Native
Security

Industry Focus: Banking & Finance

Protecting the \$10T Daily Transaction Layer



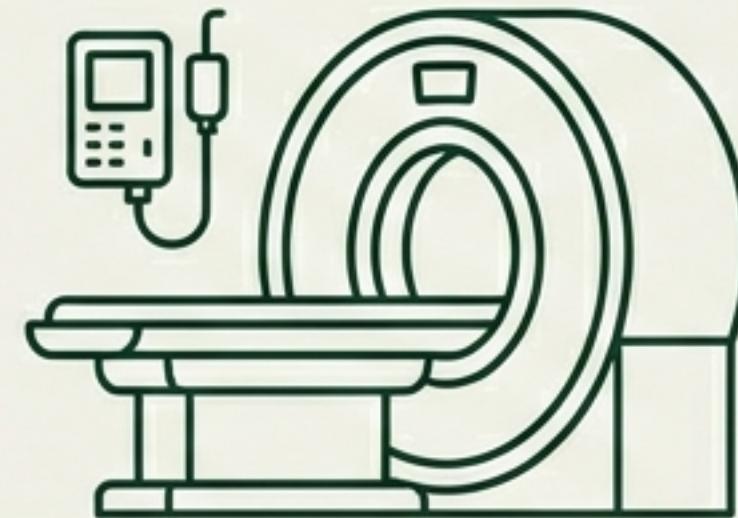
Compliance: PCI-DSS 4.0 & DORA in minutes.

Latency: Real-time Fraud Detection with <50ms impact.

Target: ISO-8583, SWIFT, FIX protocols.

Securing Life-Critical Systems: Healthcare & Infrastructure

Healthcare



Problem:

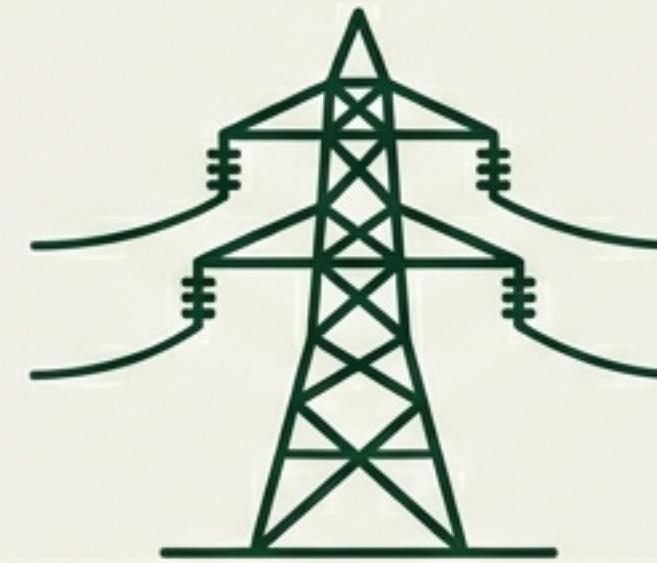
- 64KB RAM, unpatchable, FDA locked.

Solution:

- Non-invasive network wrapping.
- Zero FDA filing needed.



Critical Infrastructure



Problem:

- SCADA/PLC requires <1ms latency.

Solution:

- Passive deployment. Authenticates Modbus/DNP3 with <1ms overhead.
- Zero Downtime.



Compliance & Governance: Audit-Ready in 10 Minutes

98% Audit Pass Rate

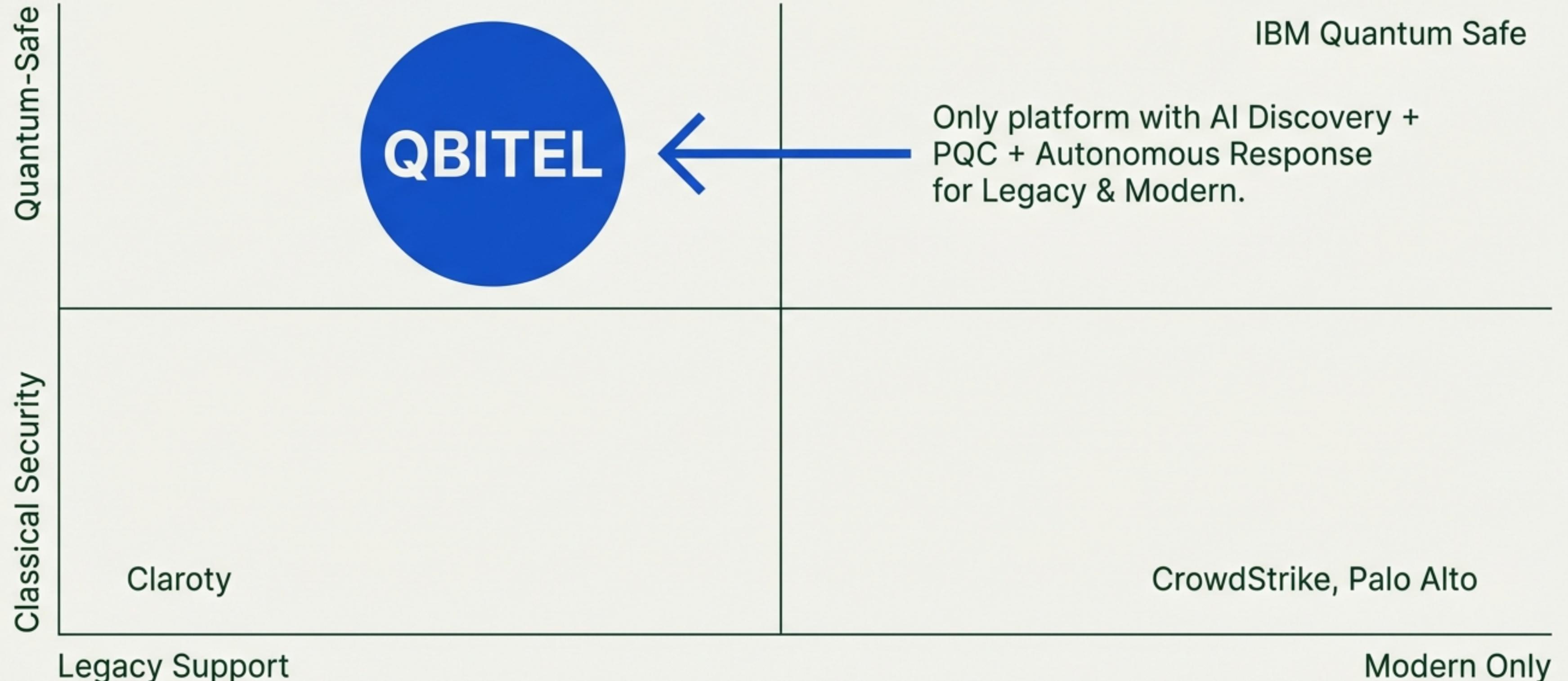
-  SOC 2 Type II
-  GDPR
-  NERC CIP
NIST 800-53

-  HIPAA
-  PCI-DSS 4.0
-  NERC CIP
NIST 800-53

Mechanism:

Automated evidence gathering +
Blockchain-backed immutable audit trails.

A Category of One



The Cost of Doing Nothing vs. The Value of QBITEL

Protocol Discovery Time

6-12 Months



Incident Response Time

65 Minutes



Modernization Cost

\$50M+



■ Traditional ■ QBITEL

■ Traditional ■ QBITEL

■ Traditional ■ QBITEL

Secure Your Legacy. Future-Proof Your World.

Open Source Core (Apache 2.0)
Enterprise Support & SLAs
Air-Gapped Ready

GitHub
Repository



Assess your Quantum Risk in 2 days.

QBITEL

enterprise@qbitel.com | bridge.qbitel.com