

QBITLE Bridge

Discover. Protect. Defend. Autonomously.



Enterprise-Grade Open-Source Platform for AI-Powered Quantum-Safe Legacy Modernization

The \$2.4 Trillion Invisible Foundation

Cloud
Microservices



Modern
Apps

60%

of Fortune 500 companies
run critical operations on
systems built 20-40 years
ago.

\$3 Trillion Daily
Banking Transactions
(COBOL)



Legacy Infrastructure

Legacy Infrastructure

Critical Grid Control
(Modbus/DNP3)



Healthcare Records &
MRI Devices



The Convergence of Three Fatal Weaknesses

Legacy Blindness

- Undocumented protocols
- Lost source code
- Retired engineers

The Quantum Threat

- Harvest Now, Decrypt Later
- RSA-2048 Broken by ~2030

Legacy Infrastructure

The Speed Gap

- Human SOC Response: 65 Minutes
- Machine Attack Speed: <1 Second

The Modernization Trap: Why Traditional Options Fail

Manual Reverse Engineering

Cost: \$2M - \$10M per system

Time: 6-12 Months

Risk: Human error, incomplete docs



Rip-and-Replace

Cost: \$50M+

Risk: 60% Failure Rate

Outcome: Years of downtime



Existing Security

Gap: Cannot run on Mainframes/PLCs

Gap: No Quantum-Safe Crypto



Enter QBITEL Bridge

The only open-source platform that secures legacy systems without touching them.

Discover: AI learns protocols from raw traffic

Protect:
Wraps communications in NIST Level 5 PQC

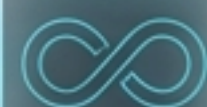
Defend: Autonomous response to threats



No Code Changes

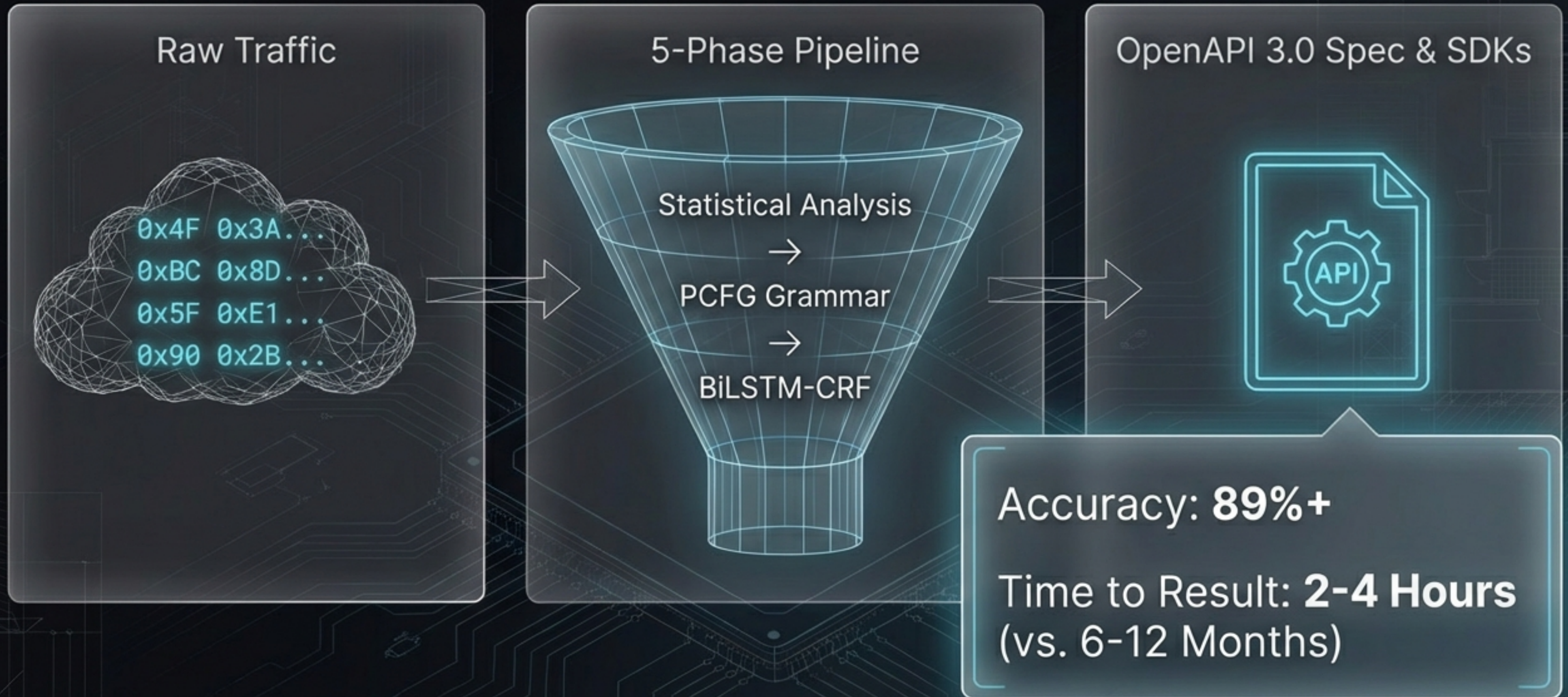


Air-Gapped Capable



Zero Downtime

AI Protocol Discovery: From Black Box to API in Hours



NIST Level 5 Post-Quantum Cryptography

Military-grade protection for systems built in 1980.



Key Encapsulation

ML-KEM (Kyber-1024)

Signatures

ML-DSA (Dilithium-5)

Architecture

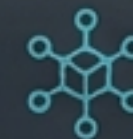
Hybrid Mode (Classical + PQC)



<1ms
Overhead



Banking Optimized
(10K+ TPS)



Auto Optimized
(<10ms Latency)

Zero-Touch Security Engine: Machine-Speed Defense

16+ AI Agents. 78% Autonomous. <1 Second Decision Time.



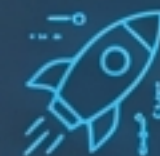
Safety Matrix



<50% Confidence
→ Escalate to Human



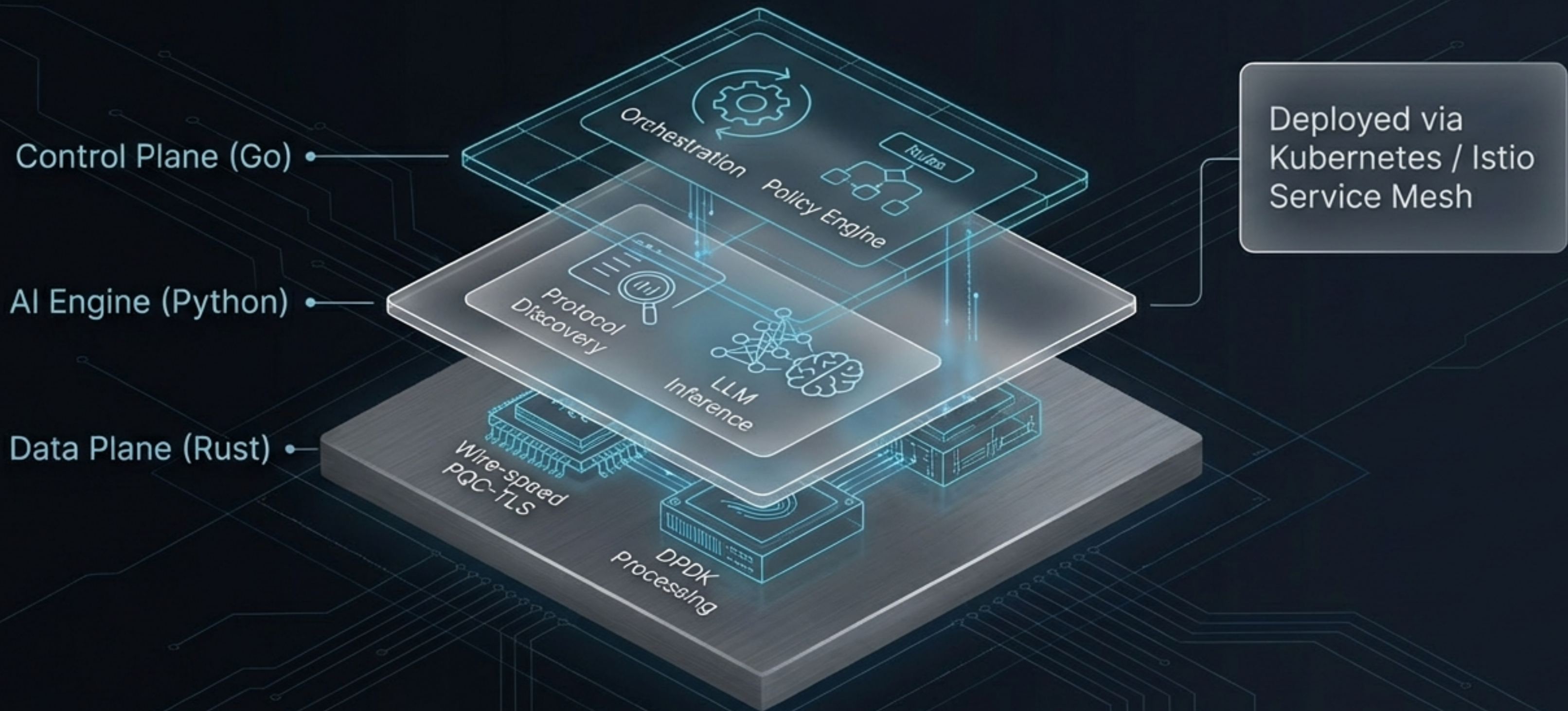
85-95% Confidence
→ Auto-Approve



>95% Confidence
→ Auto-Execute

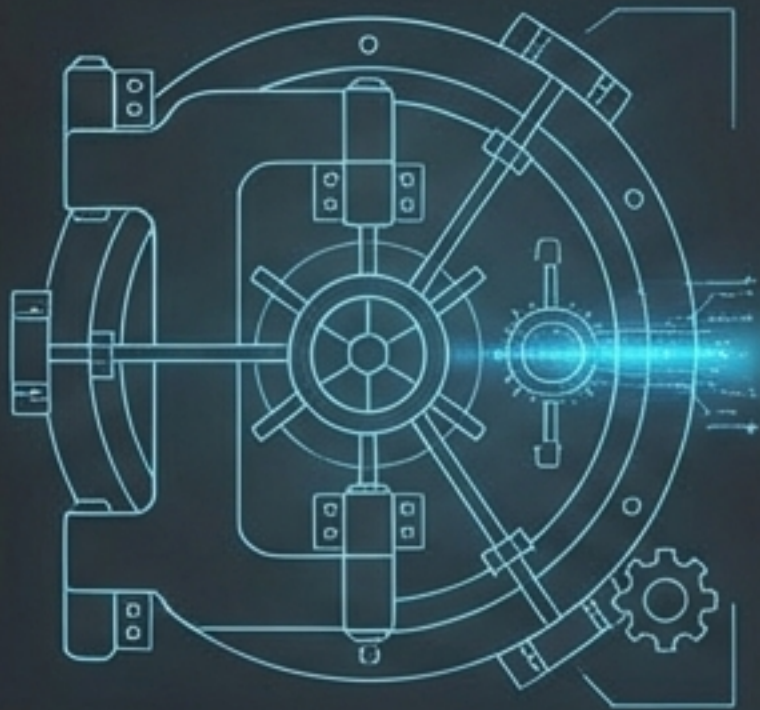
The Architecture: Polyglot & Cloud-Native

Deployed via Kubernetes / Istio Service Mesh



Securing the World's Critical Infrastructure

Banking & Finance



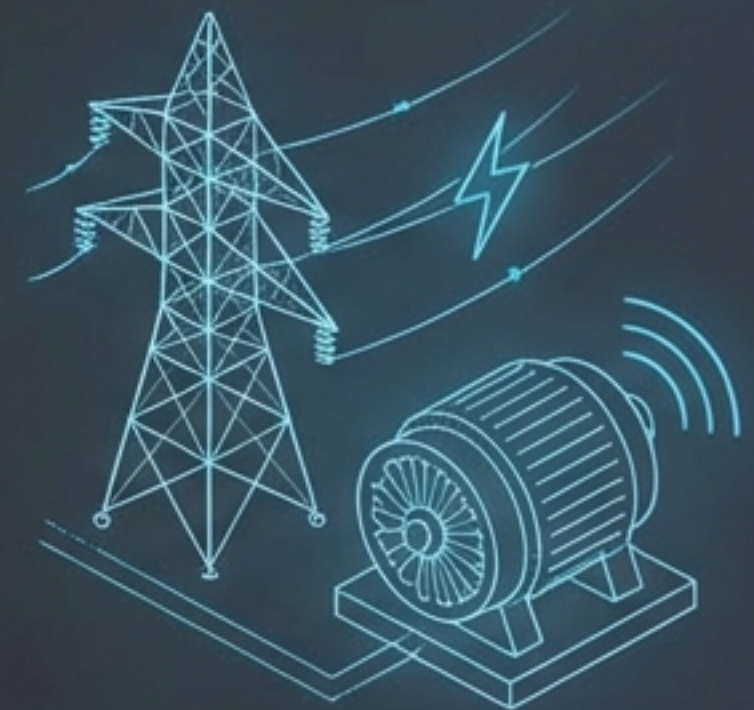
Protecting \$10T/day
ISO-8583 / SWIFT

Healthcare



Secure MRI/Pumps
(No FDA Recert)
DICOM / HL7

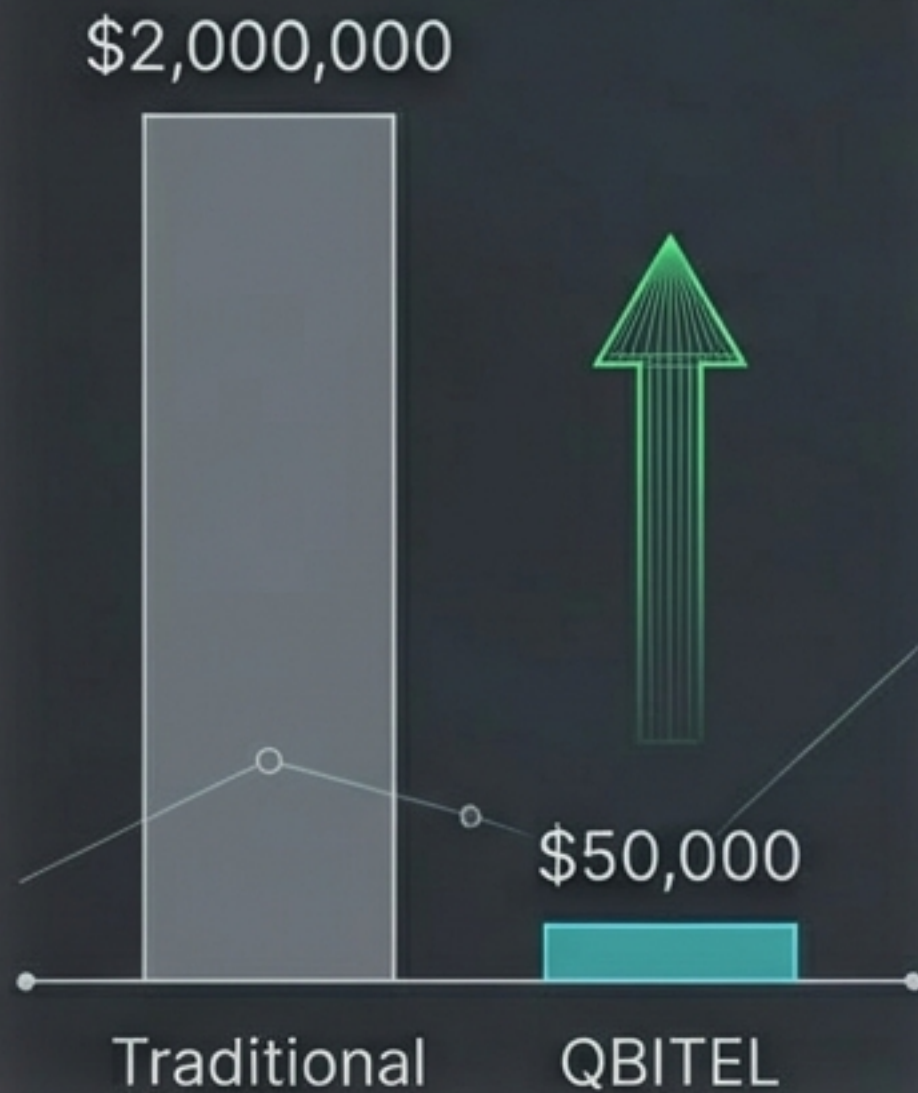
Critical Infrastructure



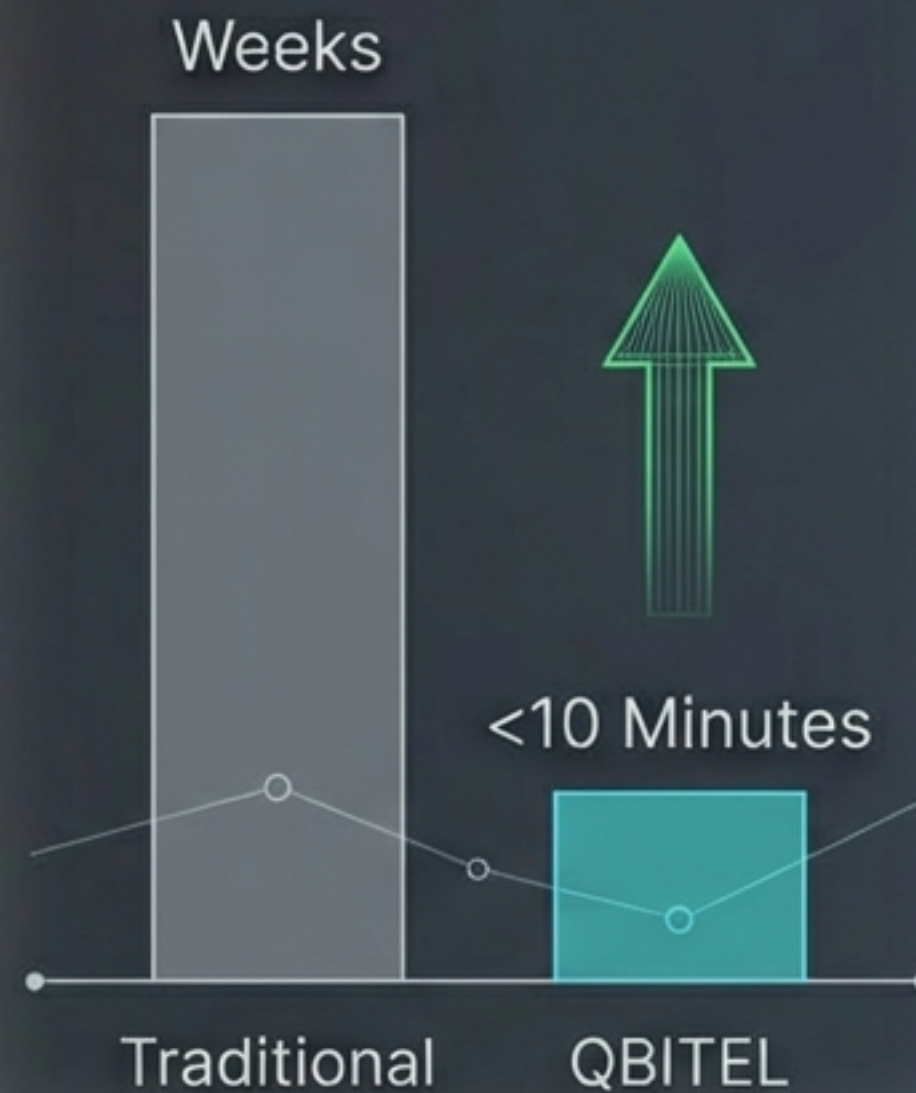
<1ms Latency for SCADA
Modbus / DNP3

The ROI of Autonomy

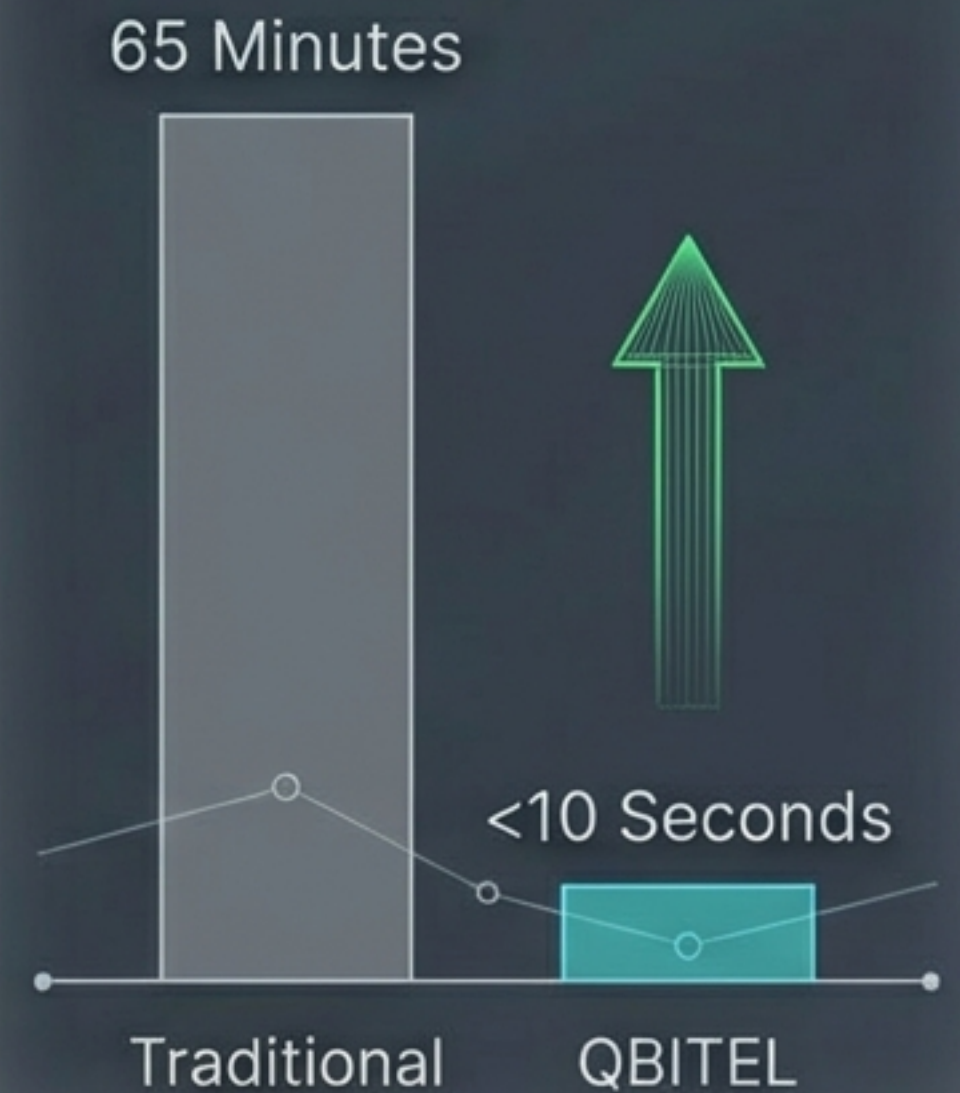
Discovery Cost



Compliance Speed



Response Time



Roadmap: The Path to Quantum Safety

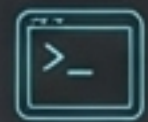
Now Available



AI Protocol
Discovery



Hybrid Crypto
(Kyber/Dilithium)



COBOL Analysis

2026 Expansion



Auto Domain
($<10\text{ms}$ V2X)



Aviation Domain
(Bandwidth opt)



Marketplace
(1,000+ adapters)

Future Ecosystem



Cloud HSM
Integration



Post-Quantum
Blockchain



Don't Let the Legacy Crisis Become
a Quantum Catastrophe.

Discover. Protect. Defend. Autonomously.

bridge.qbitel.com

enterprise@qbitel.com

GitHub: github.com/yazhsab/qbitel-bridge