

# QBITEL Bridge

Discover. Protect. Defend. Autonomously.

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

# The \$2.4 Trillion Invisible Foundation

60%

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

Cloud Microservices      Modern Apps



Legacy Infrastructure

Legacy Infrastructure

\$3 Trillion Daily Banking Transactions (COBOL)



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

## The Speed Gap

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

Legacy Infrastructure

# 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

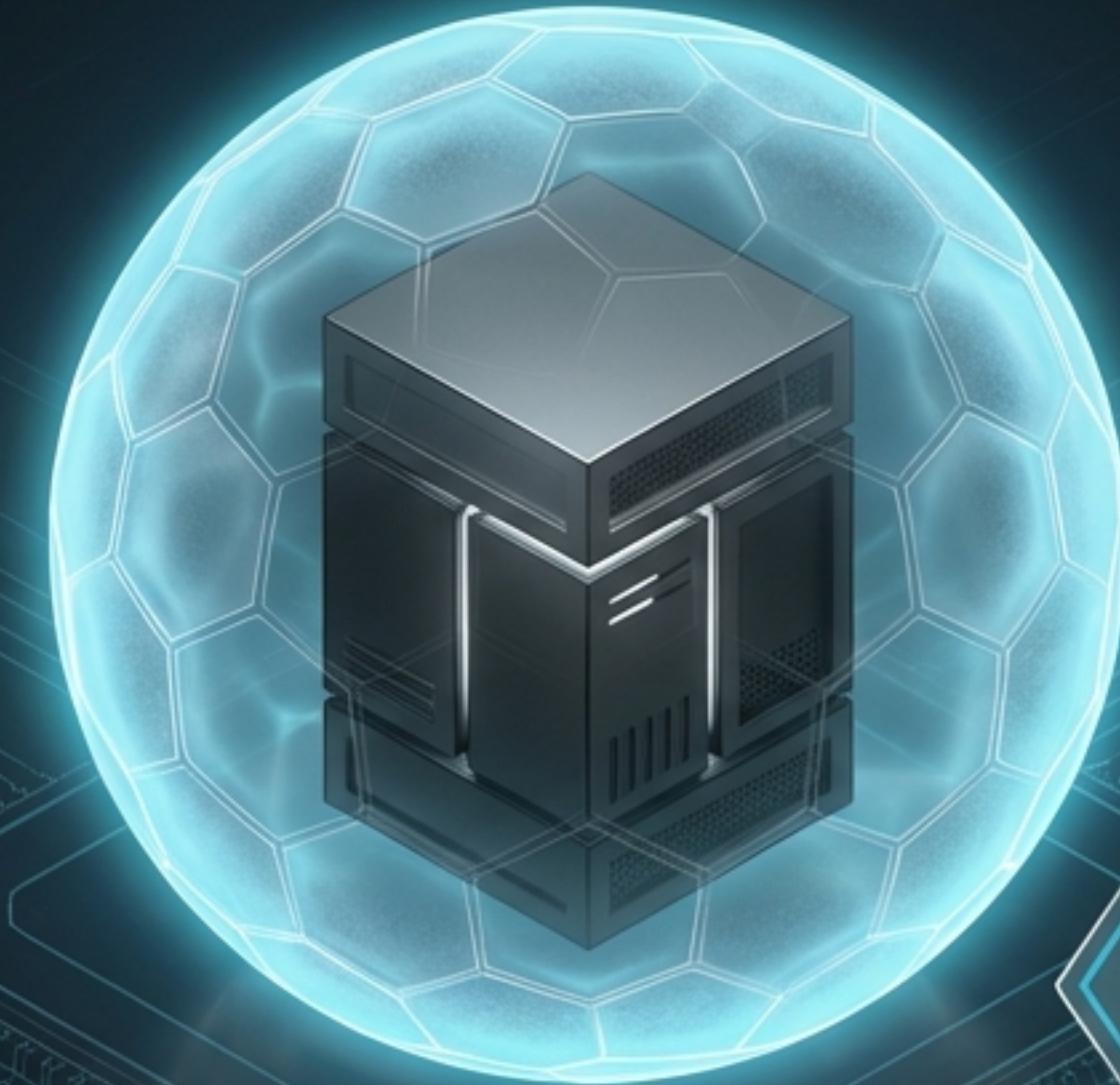
Gap: No Quantum-Safe Crypto



# 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

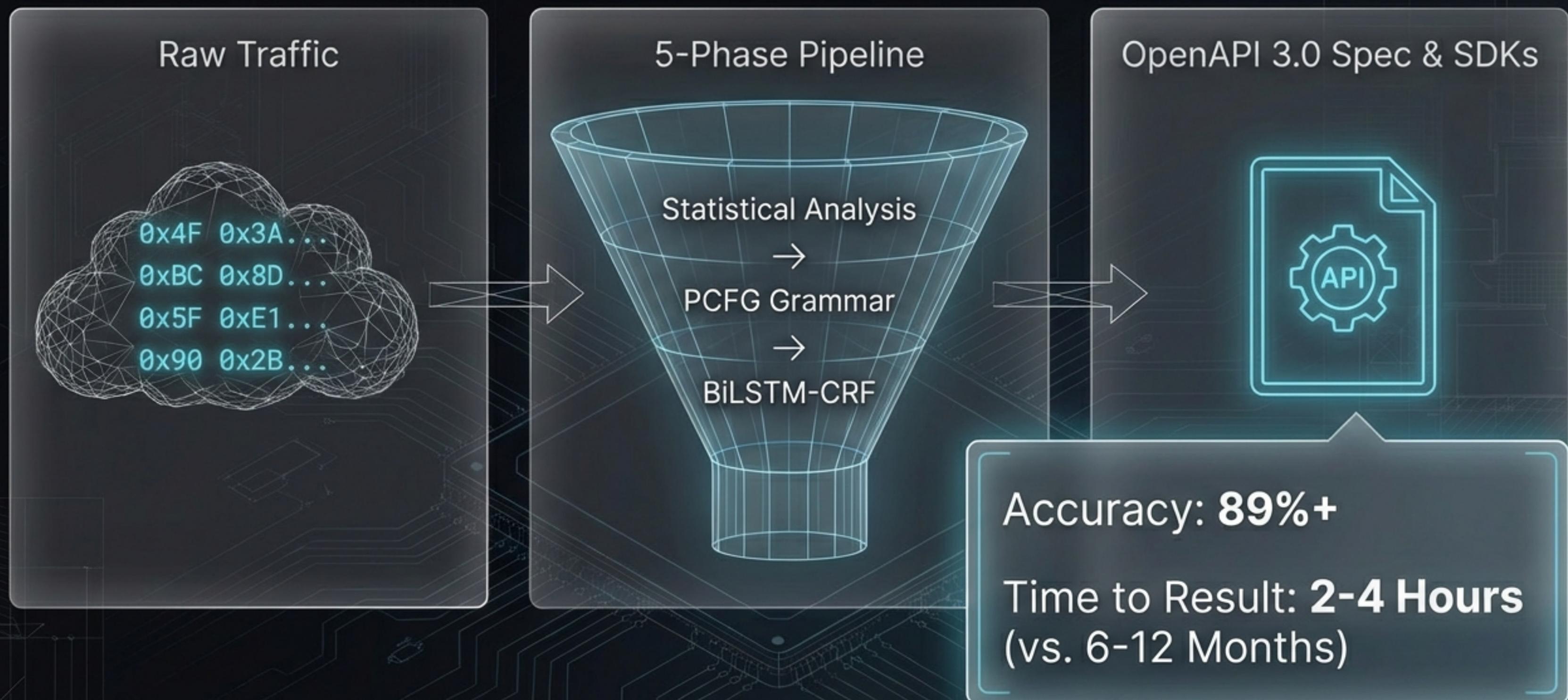


Air-Gapped Capable



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



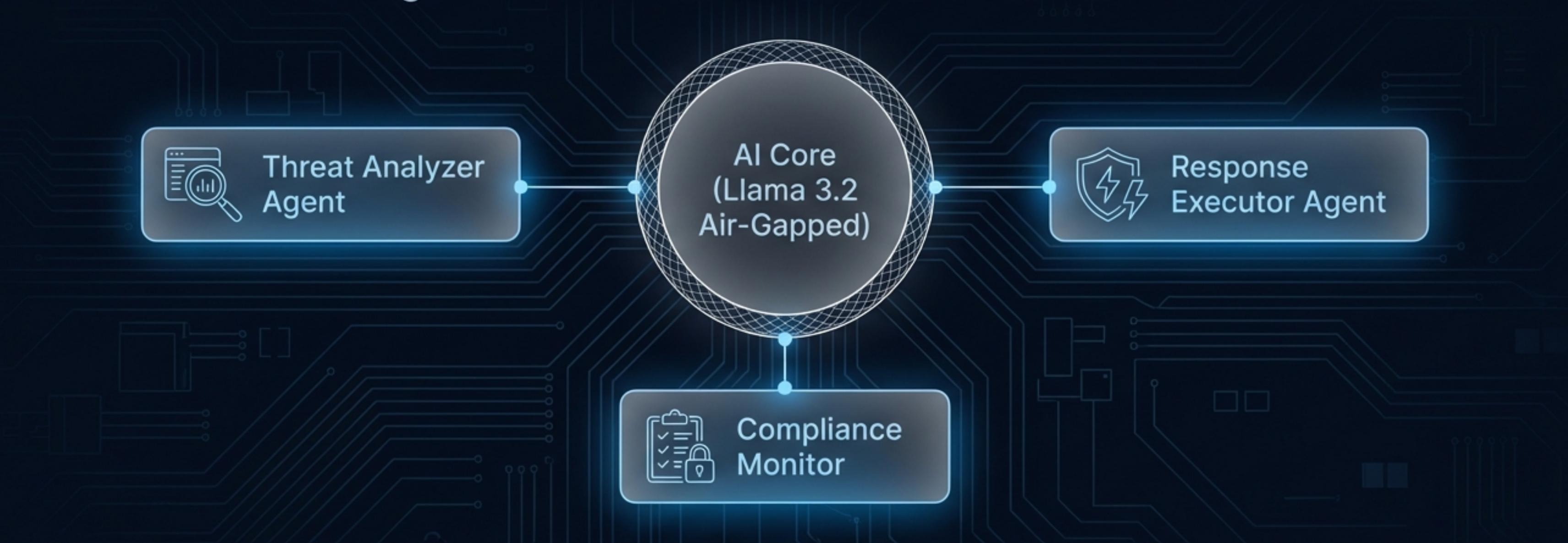
Banking Optimized  
(10K+ TPS)



Auto Optimized

# Zero-Touch Security Engine: Machine-Speed Defense

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

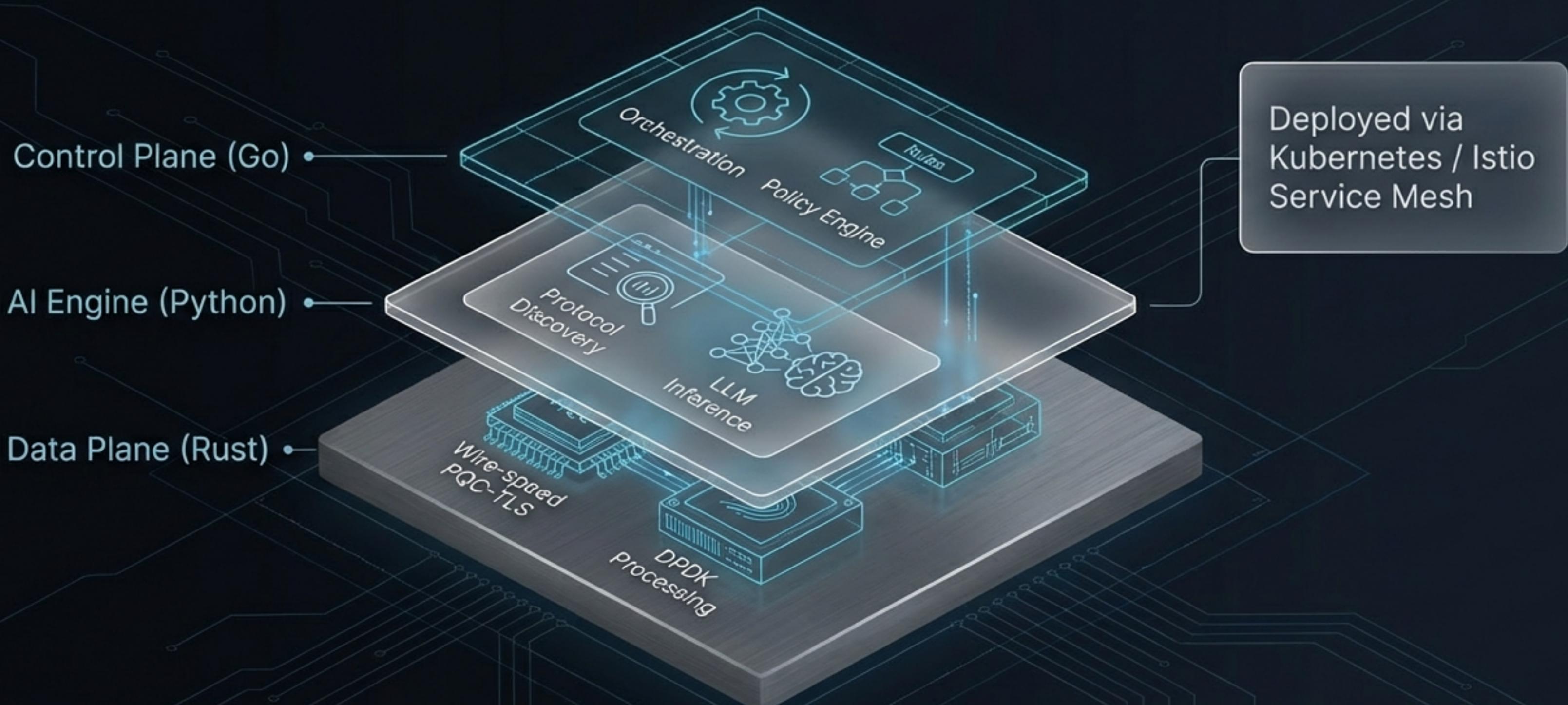


## Safety Matrix

<50% Confidence → Escalate to Human	85-95% Confidence → Auto-Approve	>95% Confidence → Auto-Execute
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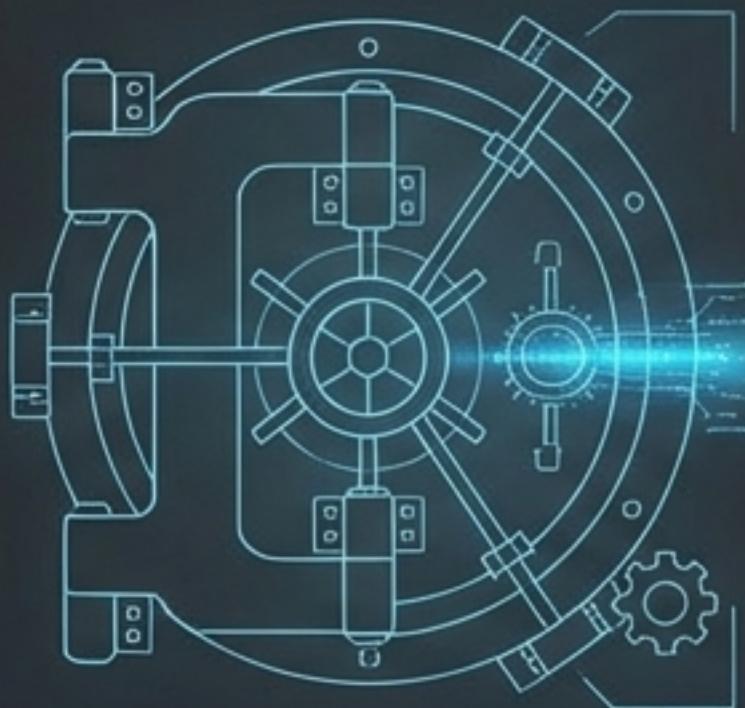
# The Architecture: Polyglot & Cloud-Native

Deployed via Kubernetes / Istio Service Mesh



# Securing the World's Critical Infrastructure

## Banking & Finance



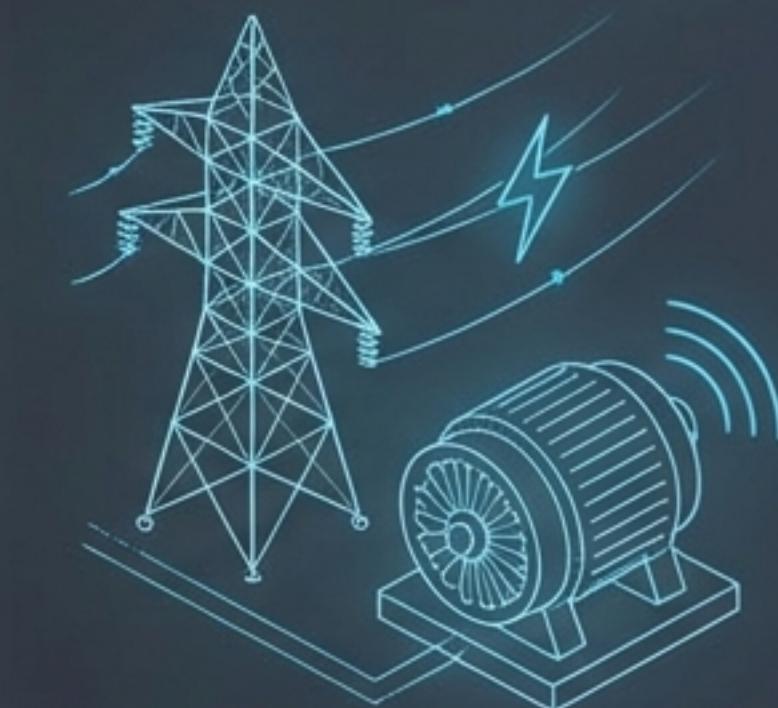
Protecting \$10T/day  
ISO-8583 / SWIFT

## Healthcare



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

## Critical Infrastructure



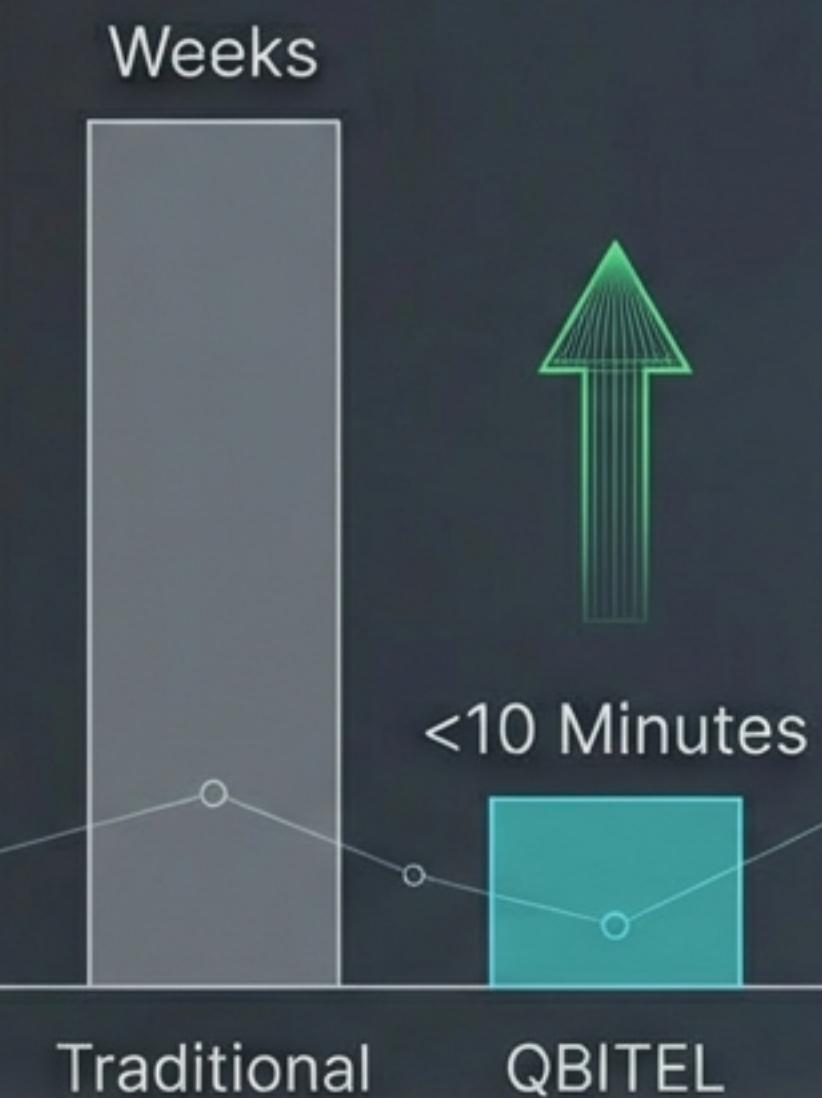
<1ms Latency for SCADA  
Modbus / DNP3

# The ROI of Autonomy

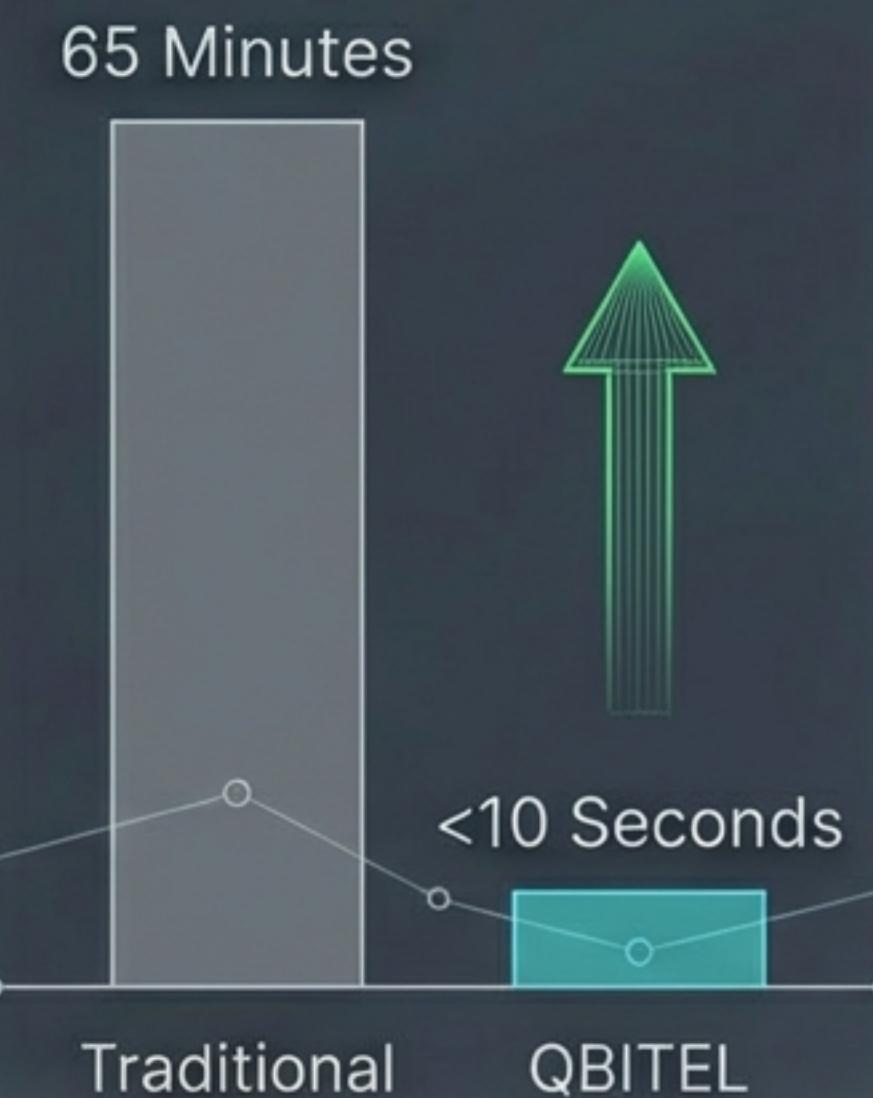
## Discovery Cost



## 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  
(<10ms 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.**

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