

THE SOVEREIGN EDGE

Operationalizing Freenet Architectures
within DeReticular Industrial Nodes



PROJECT CODE: RIOS-FREENET-INTEGRATION
TARGET UNIT: RIOS TIER 2 'ANCHOR'
STATUS: DEPLOYMENT READY // PHASE 1
LOC: KAABONG, UGANDA

EXECUTIVE SUMMARY

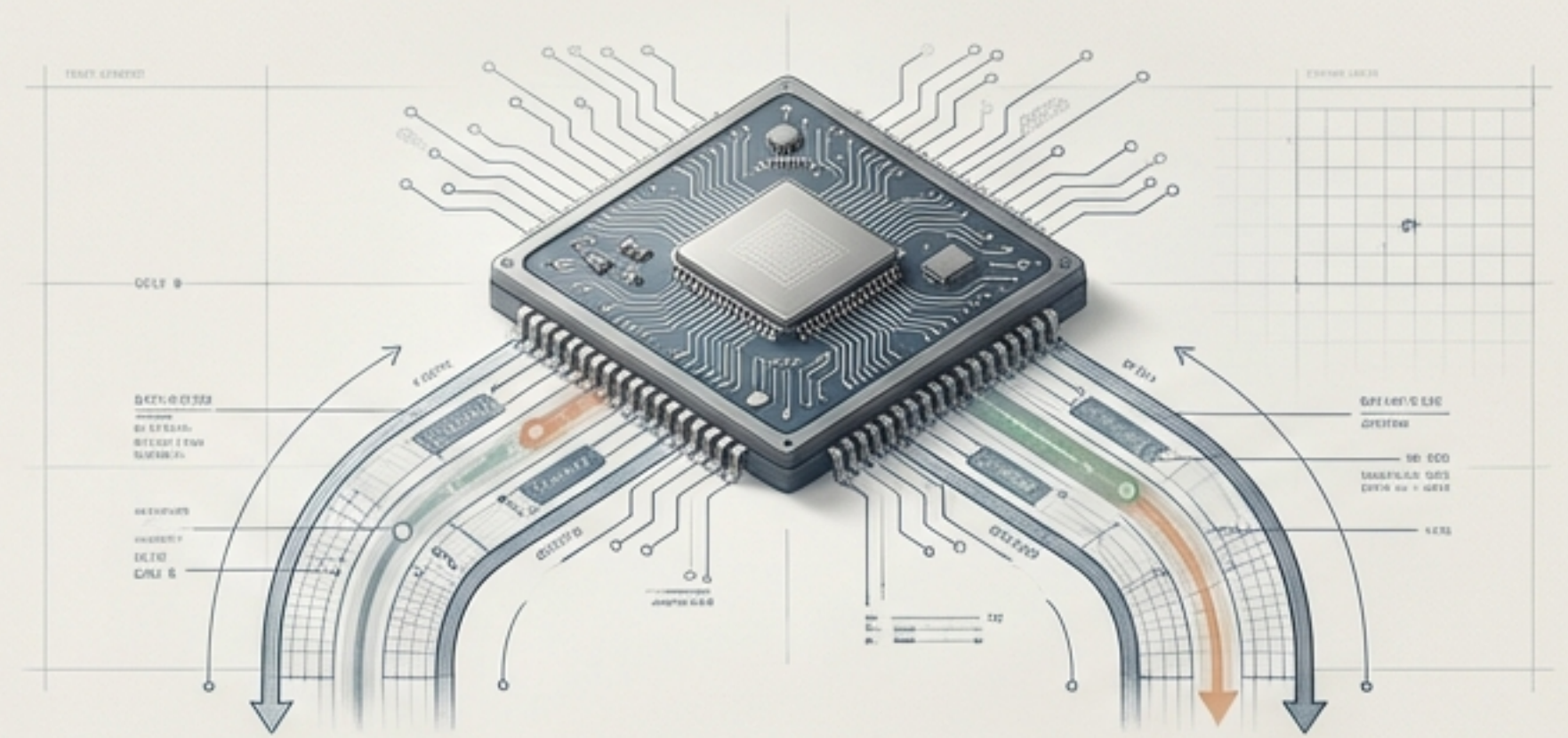
Transforming Excess Compute into Liberty Infrastructure.

Core Proposition:

Utilization of 'slack' computational capacity in RIOS Anchor nodes (Intel Xeon/128GB RAM) to host Freenet services as a background daemon.

Strategic Outcome:

Shifts DeReticular from a passive hardware vendor to an active 'Sovereign Stack' provider.



SCENARIO A: INFRASTRUCTURE



SCENARIO A: INFRASTRUCTURE

Censorship-Resistant ISP.
Community resilience during blackouts.

SCENARIO B: DATA

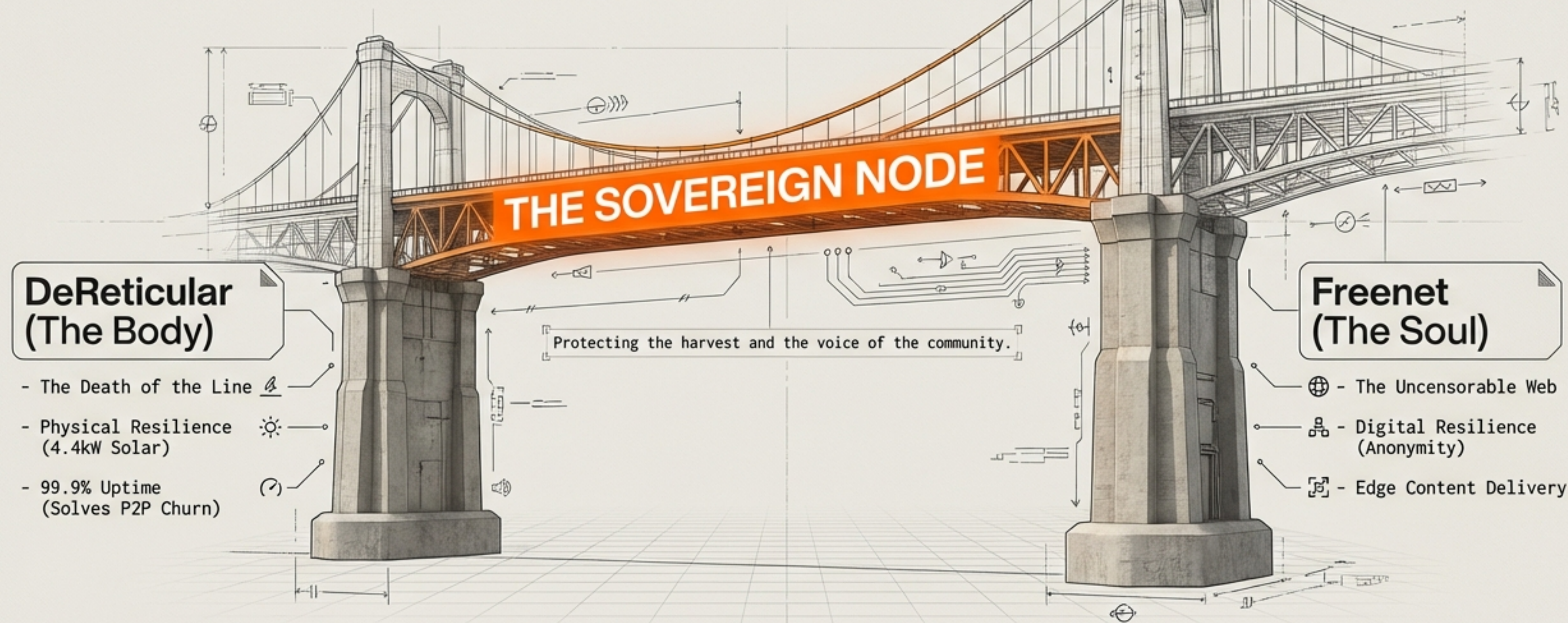


SCENARIO B: DATA

Immutable Supply Chain.
HempGrade validation via Freenet Contracts.

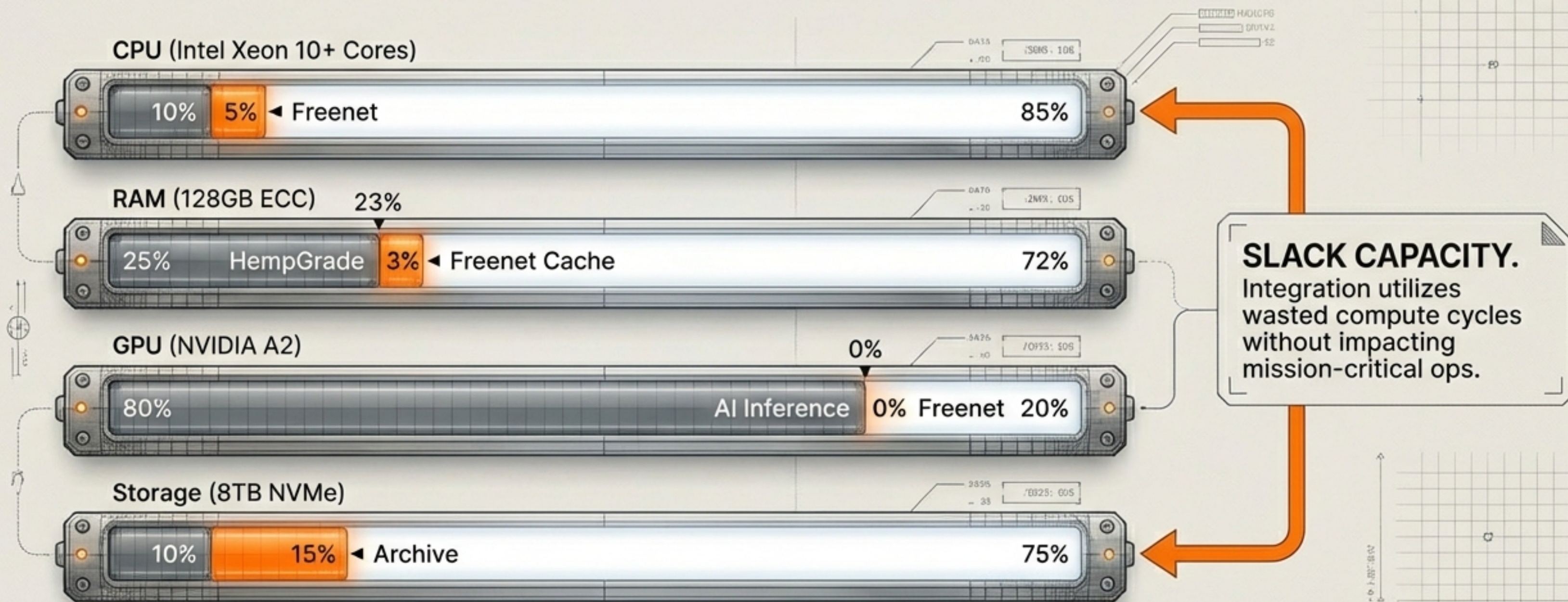
CONVERGENCE

Hardware Resilience Meets Digital Sovereignty



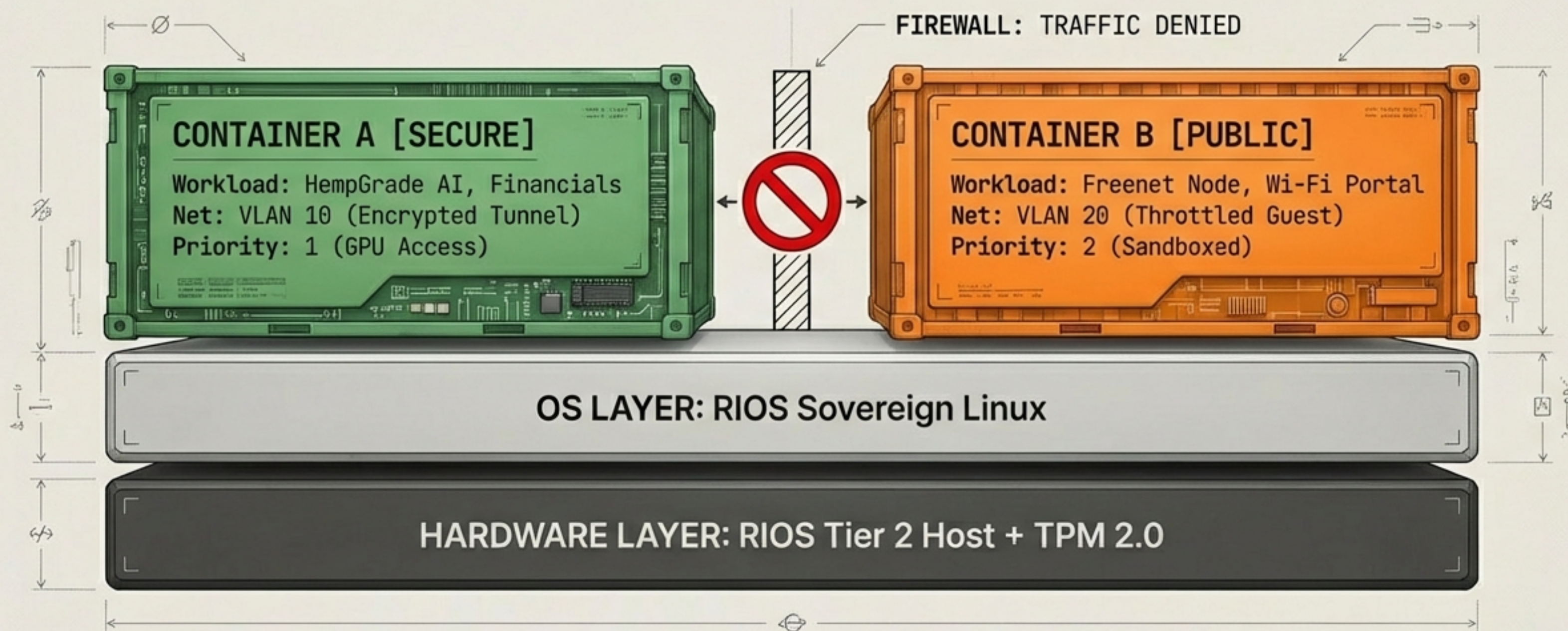
RESOURCE ARBITRAGE

The 'Free' Upgrade



THE SIDECAR MODEL

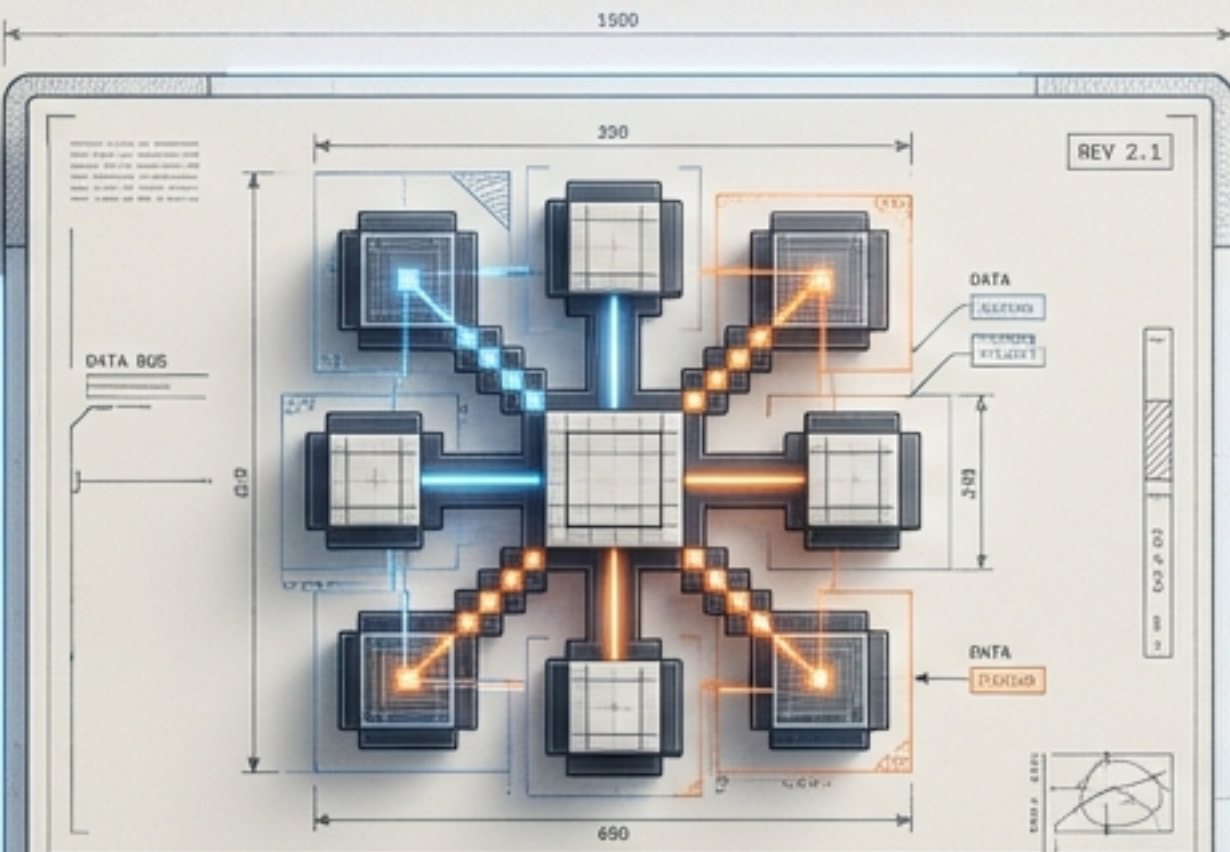
Software Architecture & Isolation



THE SOFTWARE DIVIDE

Hyphanet vs. Locutus

REV 2.1



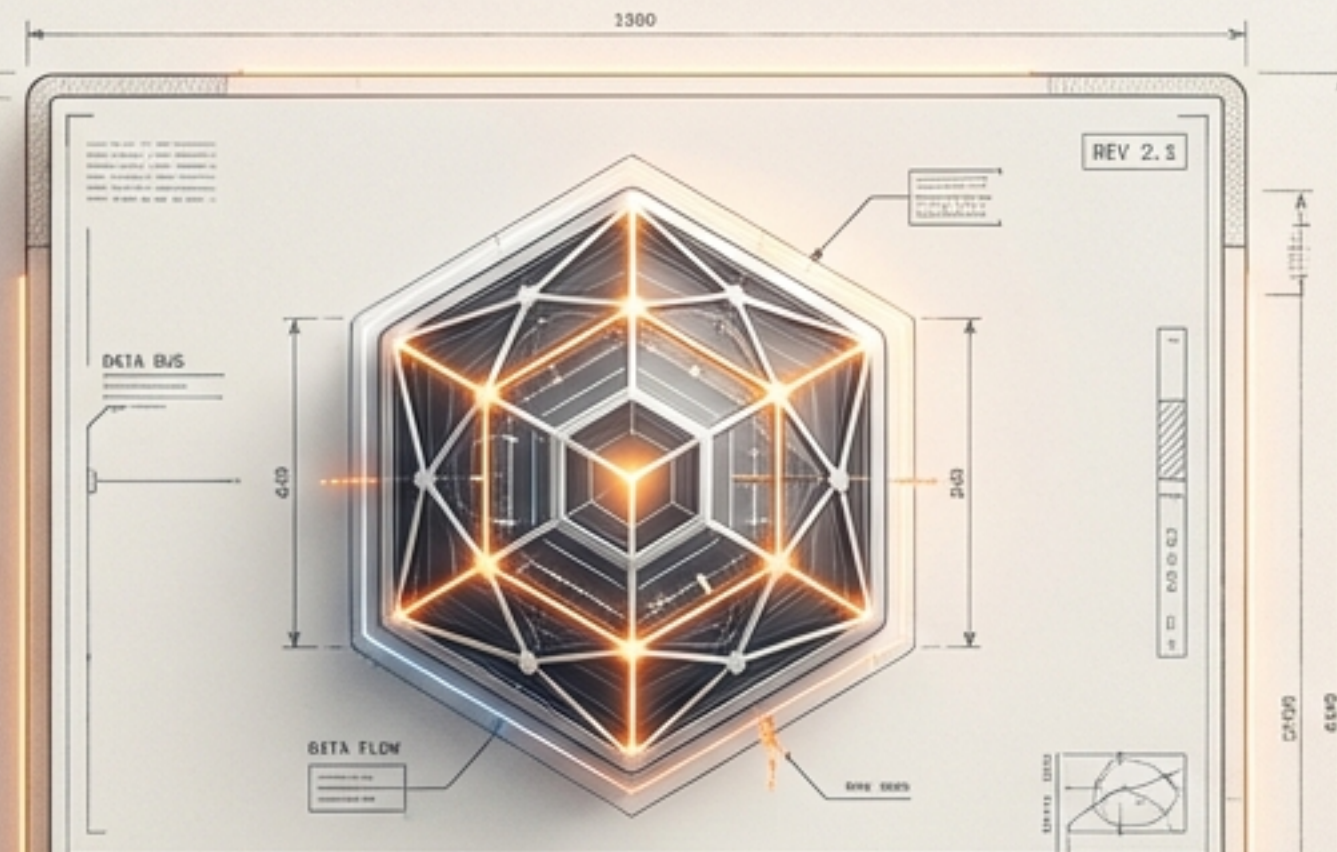
SCENARIO A: HYPHANET

Role: Infrastructure & Communication

Tech: Java-based (Mature/Stable)

Function: FProxy for static content
(Wikis, Survival Guides)

Status: PHASE 1 DEPLOYMENT



SCENARIO B: LOCUTUS

Role: Data & Smart Contracts

Tech: Rust & WebAssembly (Experimental)

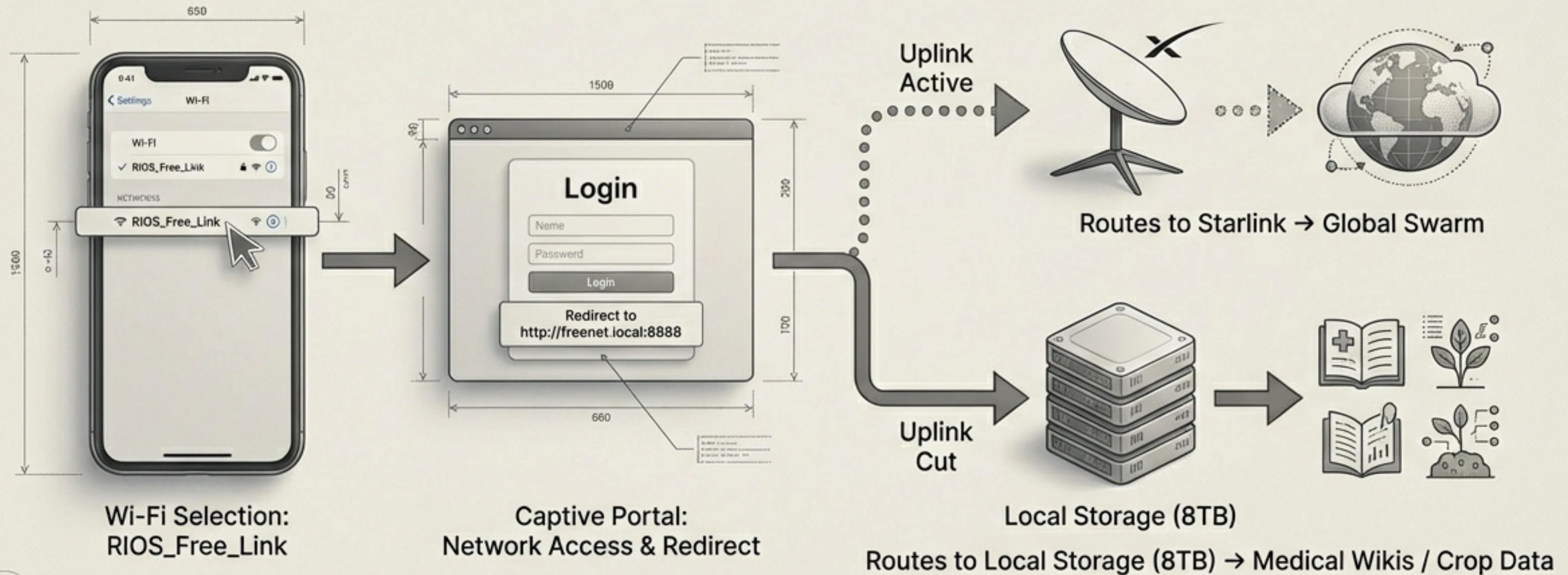
Function: 'Global Shared Computer'
for immutable data

Status: R&D / PILOT

DATA BUS ACCESS

SCENARIO A: THE COMMUNITY LINK

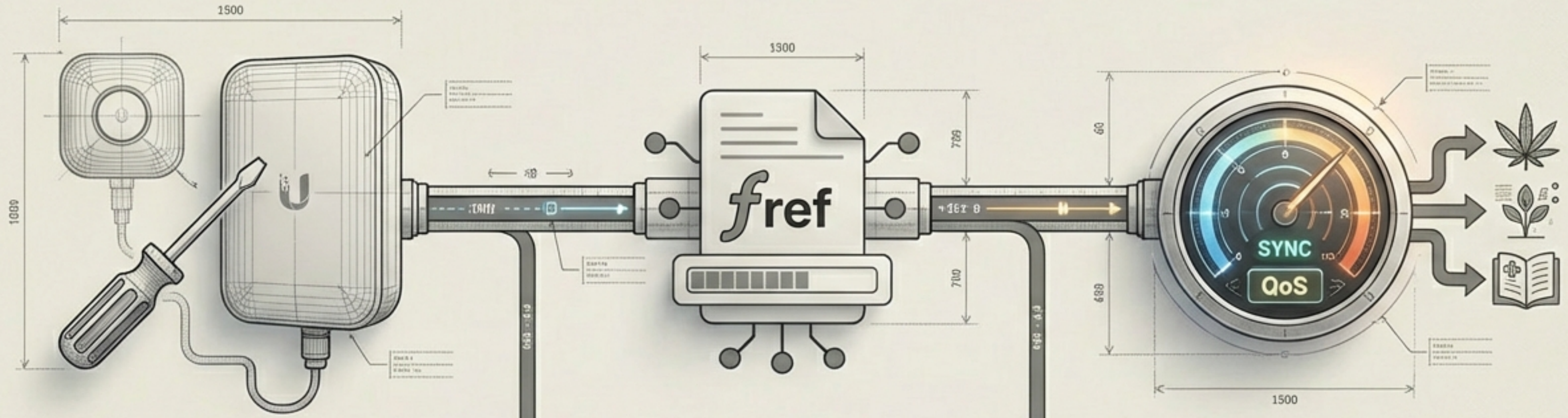
User Journey: Internet Blackout Resilience



The Node acts as a 'Lifeboat' for information.

OPERATIONAL SOP

Field Activation Protocol (SOP-RIOS-FN-01)



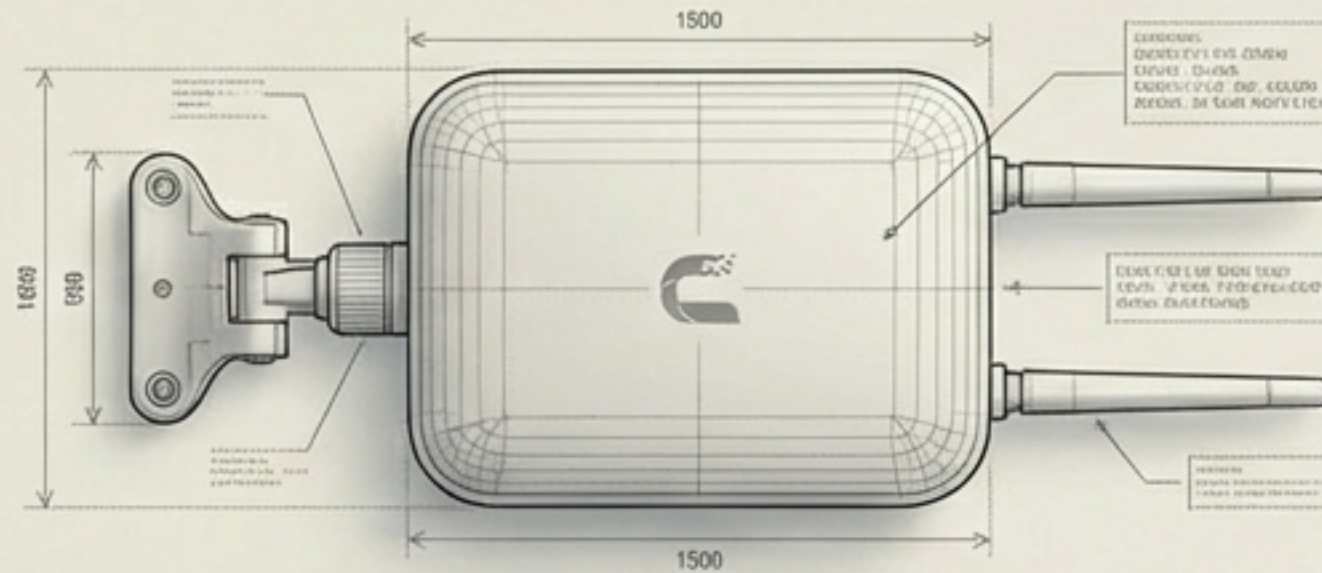
HARDWARE.
Mount Outdoor AP
(Ubiquiti Mesh Pro).
Connect Shielded Cable.

BOOTSTRAP.
Import 'seednodes.fref'.
Wait 30 mins for routing
table stabilization.

VERIFY.
Trigger HempGrade Sync
+ Freenet Download.
Confirm QoS rules protect
industrial stream.

BILL OF MATERIALS

Scenario A Integration Kit



NET-01: Ruggedized Outdoor AP (\$200)



SEC-01: Hardware Security Key (\$100)

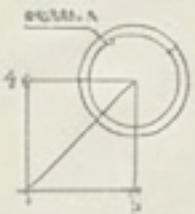


STR-01: Isolation Drive 2TB (\$180)



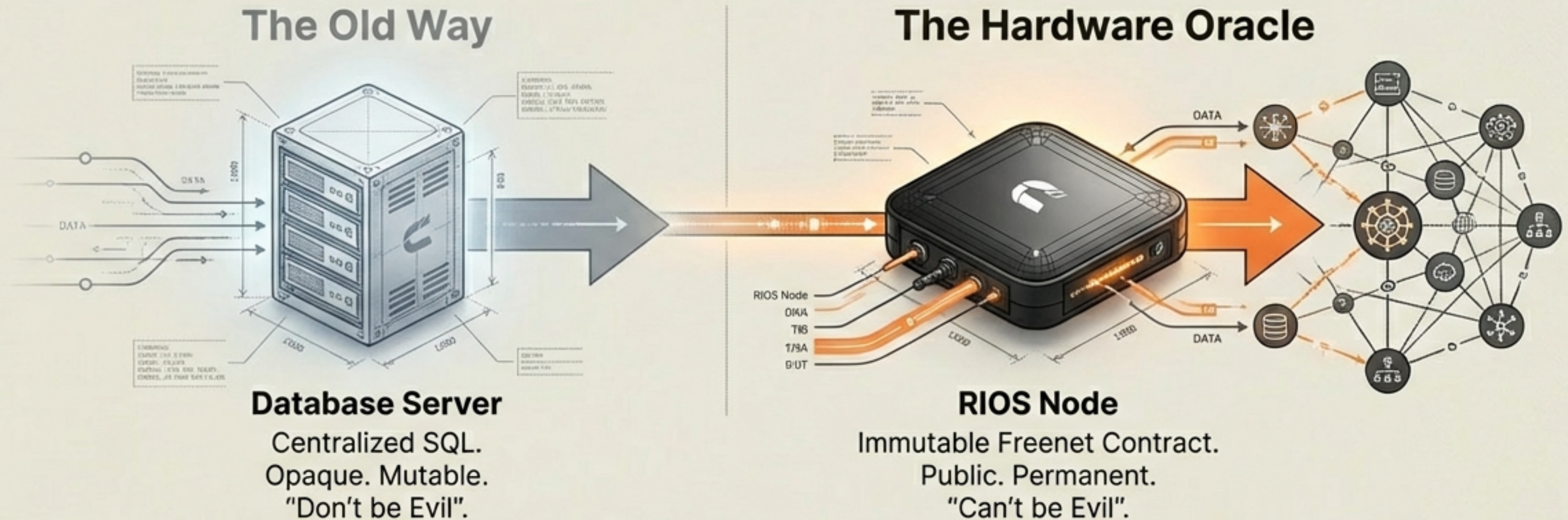
MISC: Shielded Cable & Tamper Seals (\$30)

JetBrains Mono
TOTAL INCREMENTAL COST: <\$600



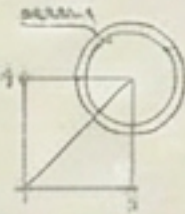
SCENARIO B: TRUSTLESS COMMODITIES

Solving the Oracle Problem



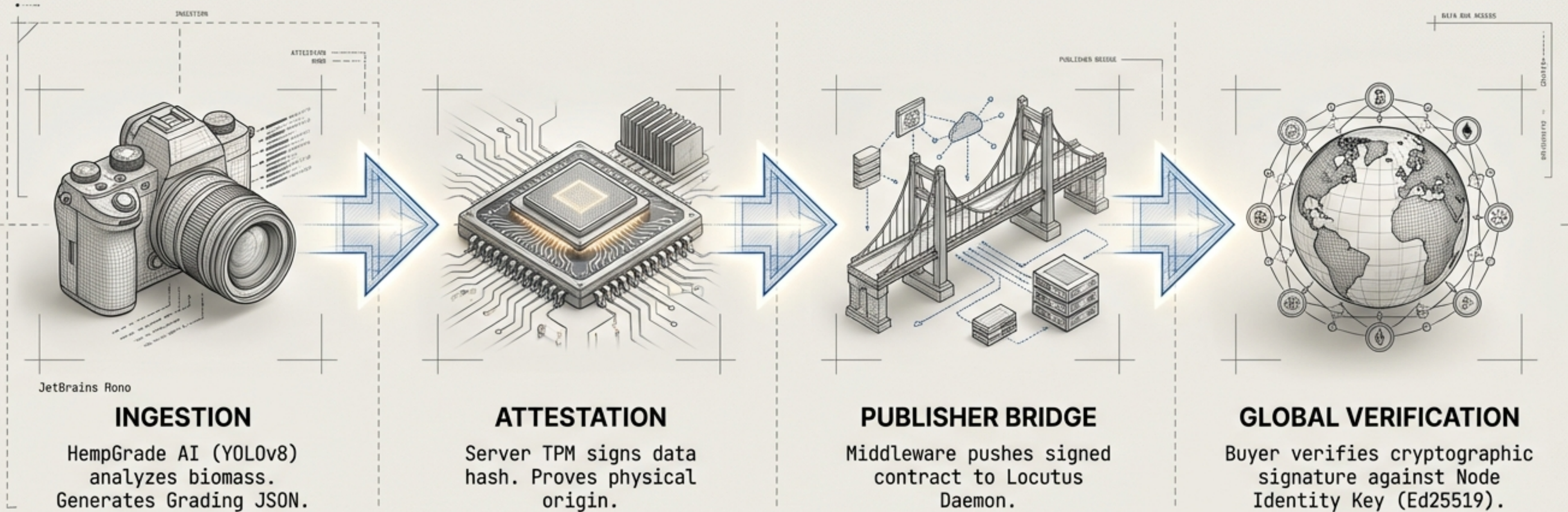
Problem: Centralized databases allow bad actors to alter grading data hidden from view.
Solution: Publishing grading data to public, cryptographic contracts signed by the hardware.

— — — — —

 NotebookLM

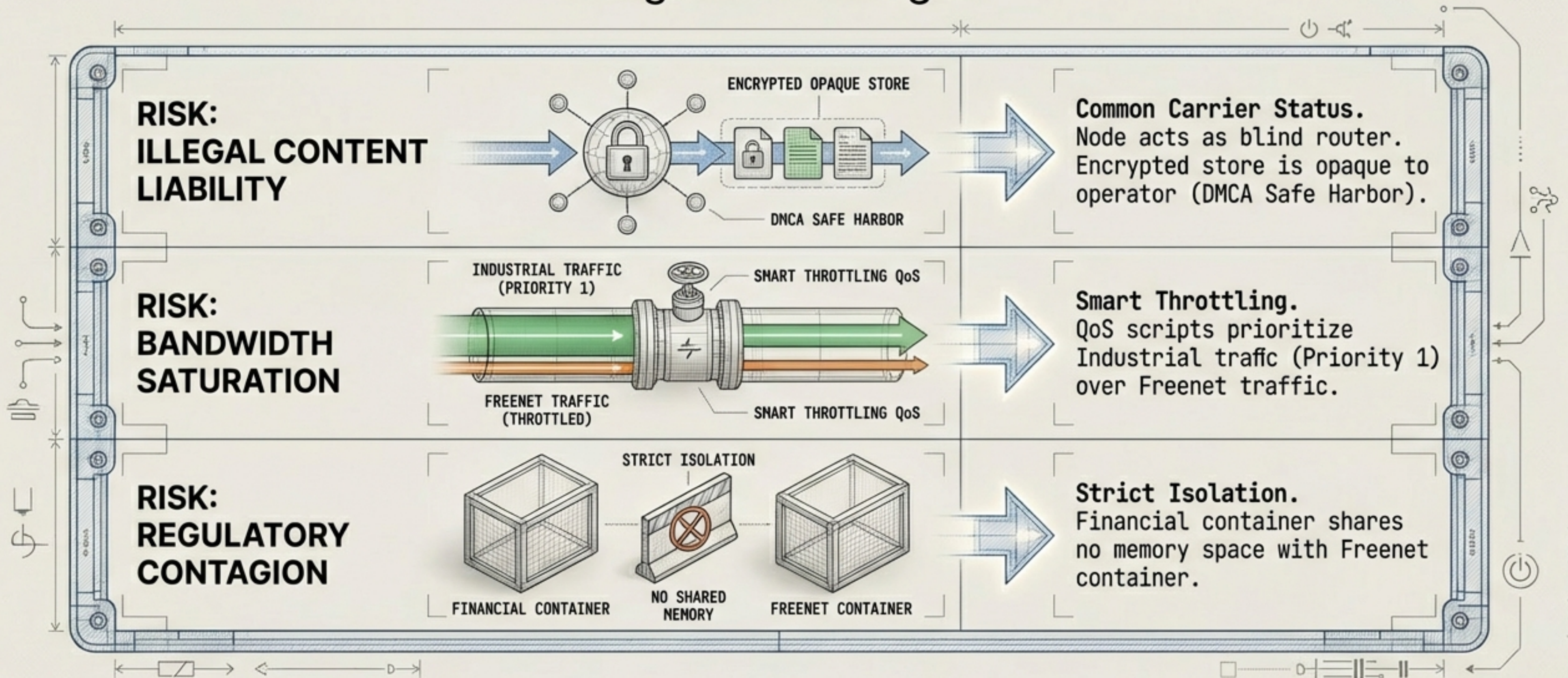
WORKFLOW: THE HARDWARE ORACLE

Data Attestation Chain



RISK ASSESSMENT

Mitigation Strategies



SWOT ANALYSIS

Strategic Position

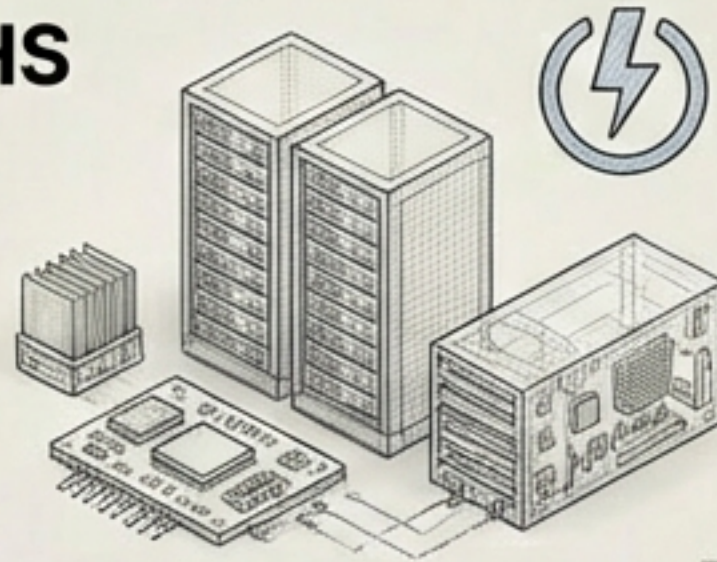


STRENGTHS

High-spec Hardware
(Xeon/128GB).

Energy Autonomy
(No Churn).

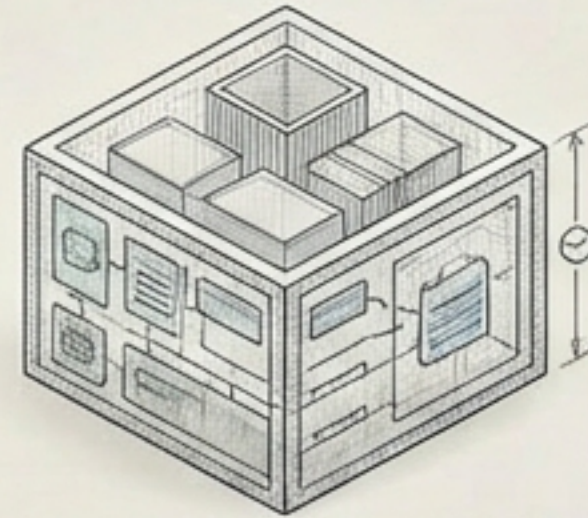
Geographic Edge.



OPPORTUNITIES

"Freedom" Branding.

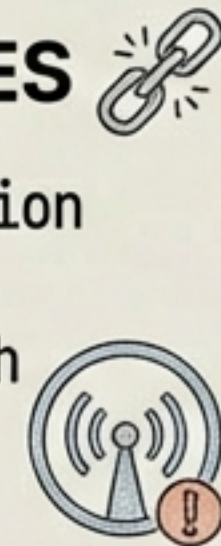
New RWA Asset Class
via Freenet Contracts.



WEAKNESSES

Containerization
Complexity.

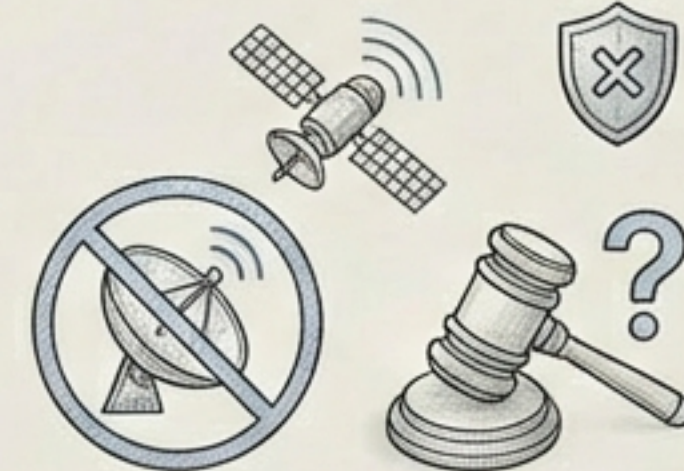
High Bandwidth
Cost.



THREATS

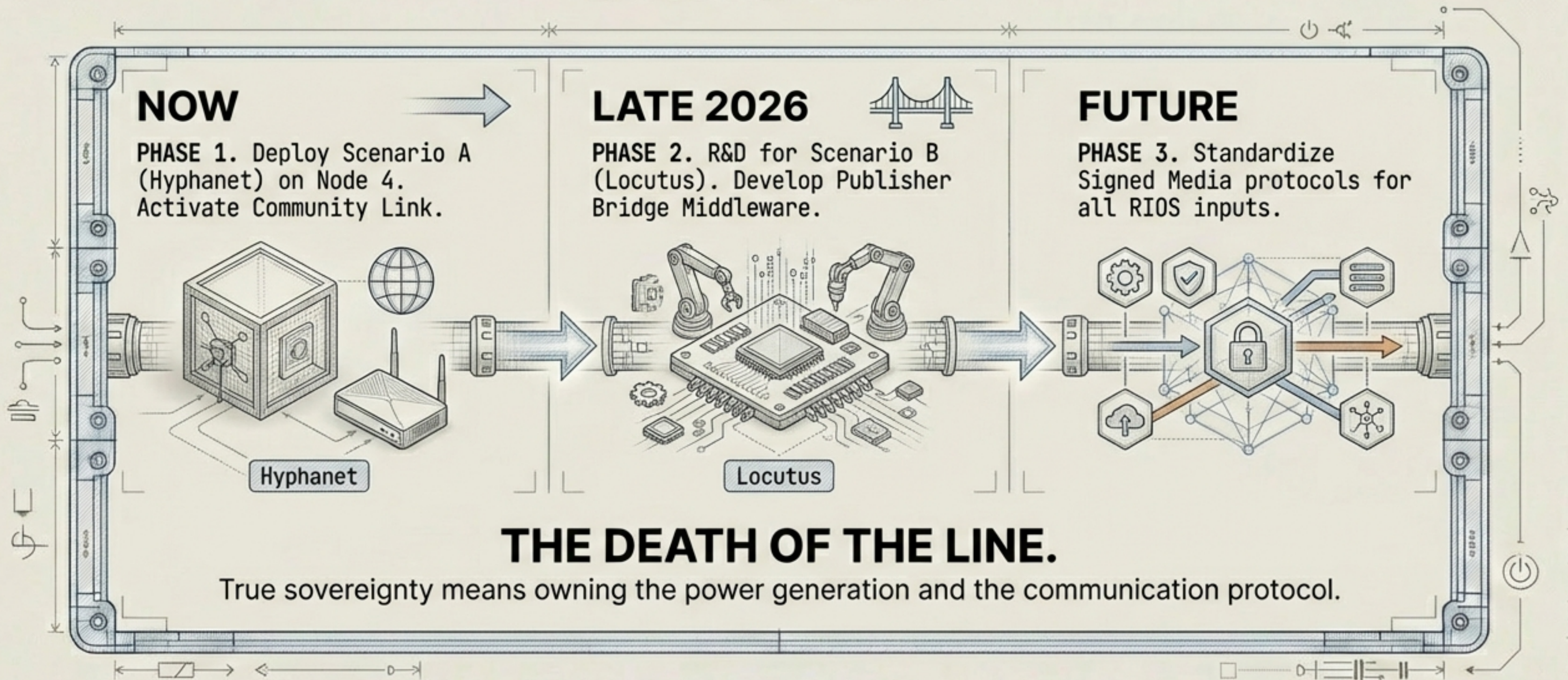
ISP/Starlink Bans
on P2P.

Regulatory
Misunderstanding.



ROADMAP & RECOMMENDATION

Execution Timeline



APPROVED FOR DEPLOYMENT

DATA BUS ACCESS