THE FIELD MEDIC

Autonomous Remote Maintenance & Right-to-Repair Suite

SKU: SOV-AUTO-MEDIC

DEPLOYMENT PHASE: Field Active

VERSION: 1.0
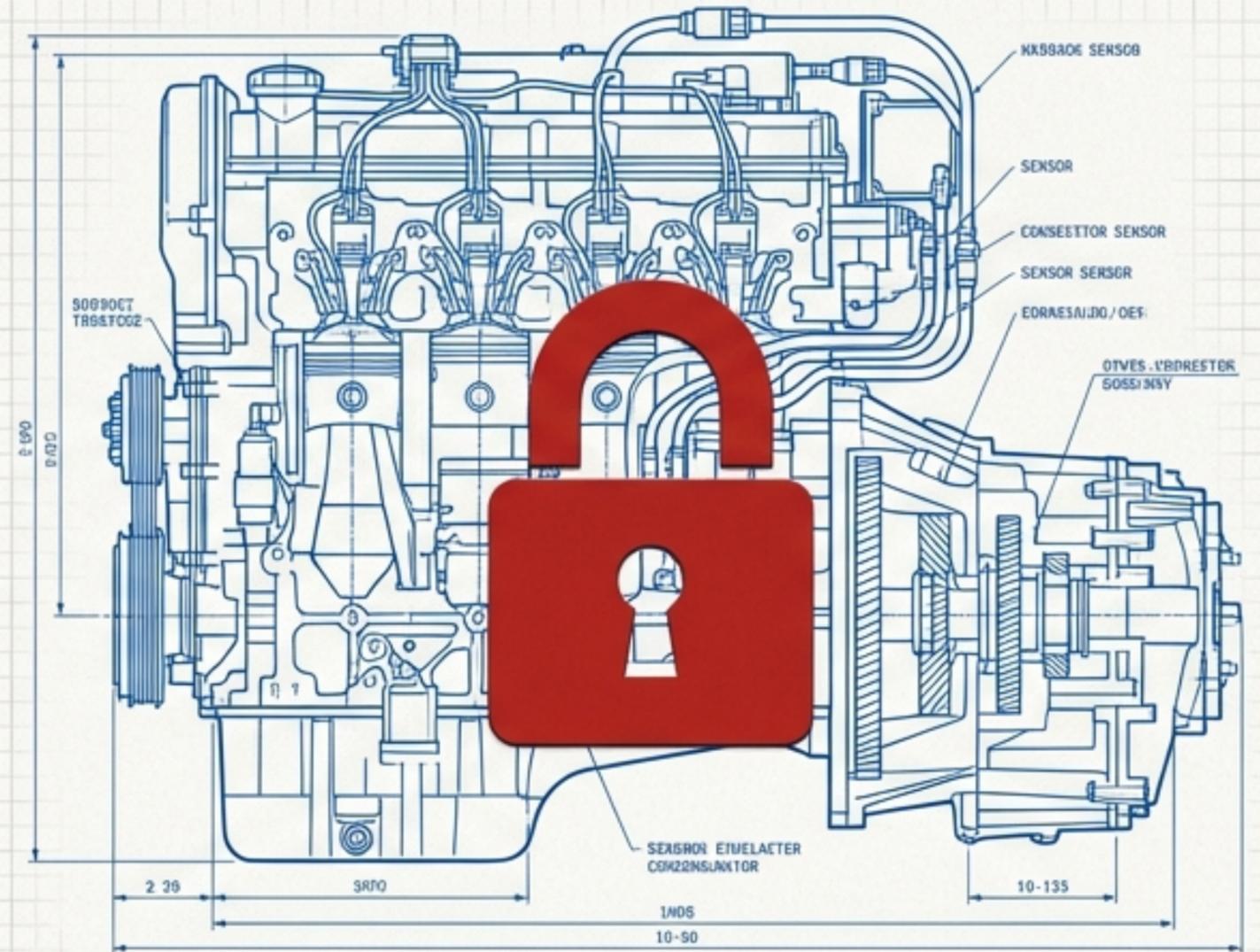
OWNER: DeReticular Autonomous Infrastructure

Industrial Equipment Fails Where the Cloud Cannot Reach

THE PHYSICS

When a 1998 Caterpillar drops offline in a cellular dead-zone, technicians cannot wait for a Starlink connection to download a 500-page PDF manual.

THE POLICY

Modern OEMs actively obscure repair knowledge behind paywalls and Digital Rights Management (DRM) to enforce dealer-only repairs and limp-mode lockouts.
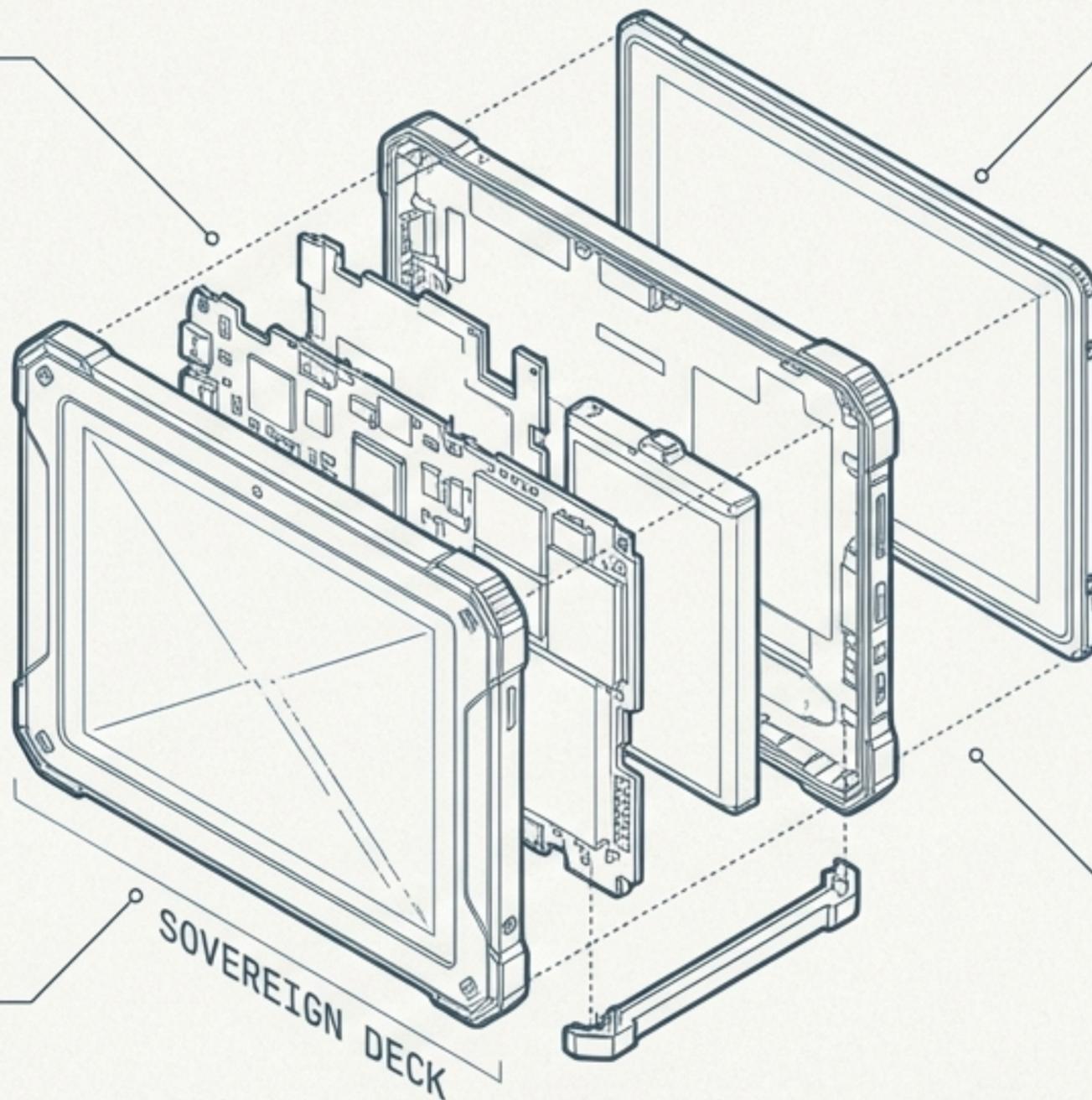
The Ultimate Right-to-Repair Weapon

ROLE

Autonomous, multi-modal OpenClaw agent hosted entirely on local hardware. Fuses a Vision-Language Model with a massive massive NVMe-based Vector Database.

Zero internet required.

HARDWARE DEPENDENCY

Sovereign Deck (Tactical tablet with local LLM compute)

SOVEREIGN DECK
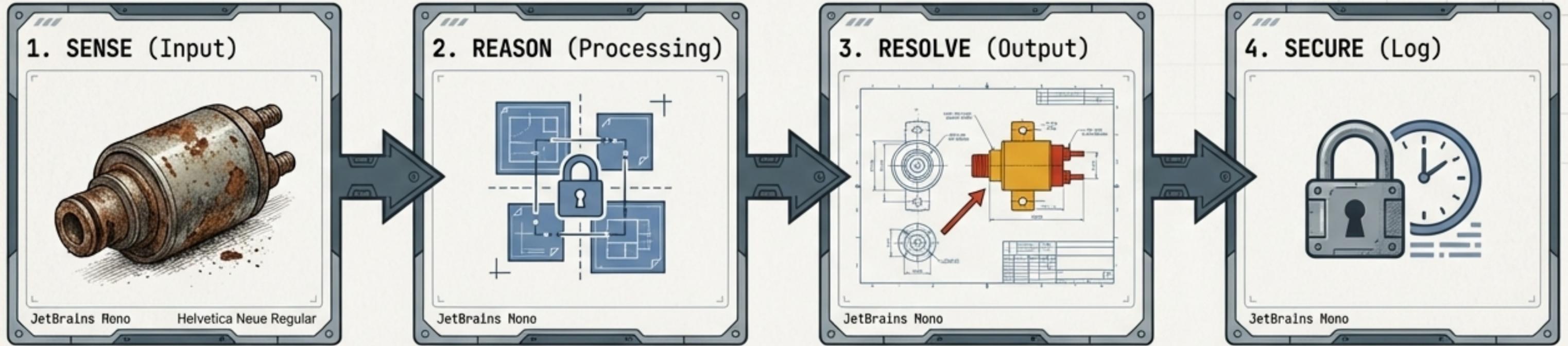
TARGET MSRP

$1,299.00
(Software & Base Vector Library)

OPERATOR AUDIENCE

Sovereign Power Technicians (SPTs),

Offshore Rig Mechanics, Combat Engineers, Rural Farmers, Mining Camp Operators.

Sovereign System Architecture

THE CORE (Containerized Software)

OpenClaw Medic Image: 8B-parameter VLM reasoning engine optimized for schematics.

The Archive: Milvus local vector DB. Millions of OCR'd manuals & torque specs (1970–present).

The Locutus Daemon: Cryptographic hashing engine for immutable maintenance logs.

THE SHELL (Hardware Infrastructure)

Compute: Neural Processing Unit (NPU) running 30+ tokens/sec on NVMe.

Optics: High-res macro camera with dual-LED ring light.

Chassis: IP68 rated against diesel fuel, hydraulic fluid, and mud.

NotebookLM

The Mud and Oil Operational Flow

1. SENSE (Input)

Tech photographs corroded part.

Voice Prompt: What is this and how do I bypass it?

2. REASON (Processing)

Semantic visual lookup against local Milvus DB.

Extracts bolt patterns and casting marks in milliseconds.

3. RESOLVE (Output)

Identifies 12V Fuel Shutoff Solenoid (OEM Part #3931570).

Synthesizes bypass steps with highlighted schematic.

4. SECURE (Log)

Timestamp, GPS, and AI diagnosis hashed to the Locutus Ledger. Generates verifiable proof of maintenance.
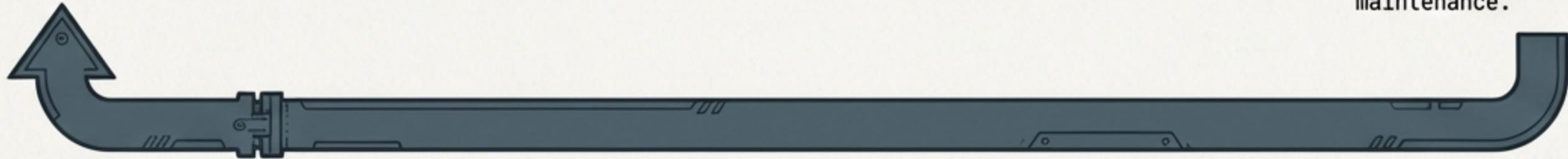
Multi-Modal Diagnostic Sensory Array

SIGHT
(Visual Inference)

Uses the macro camera to identify exact parts, recognize bolt patterns, and synthesize step-by-step instructions from legacy schematics.
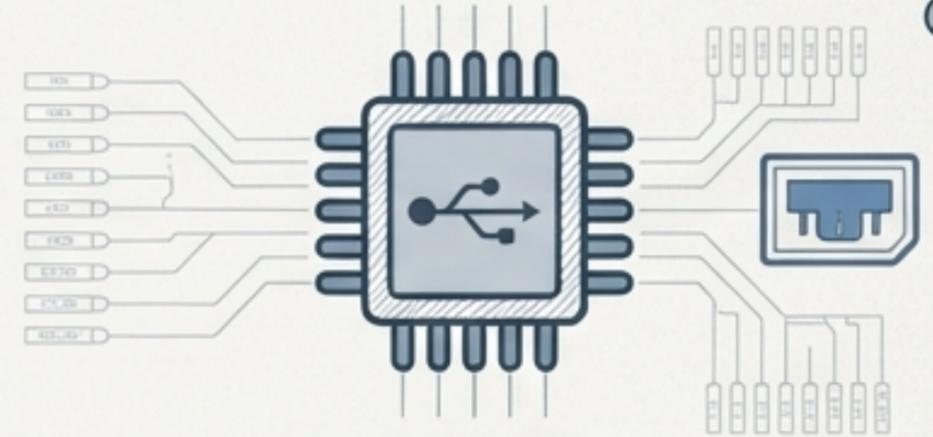
SOUND
(Acoustic FFT Analysis)

Records 10s of engine audio via noise-canceling mics. Runs Fast Fourier Transform (FFT) analysis.

Output: 85% probability of spun main bearing. Do not run.
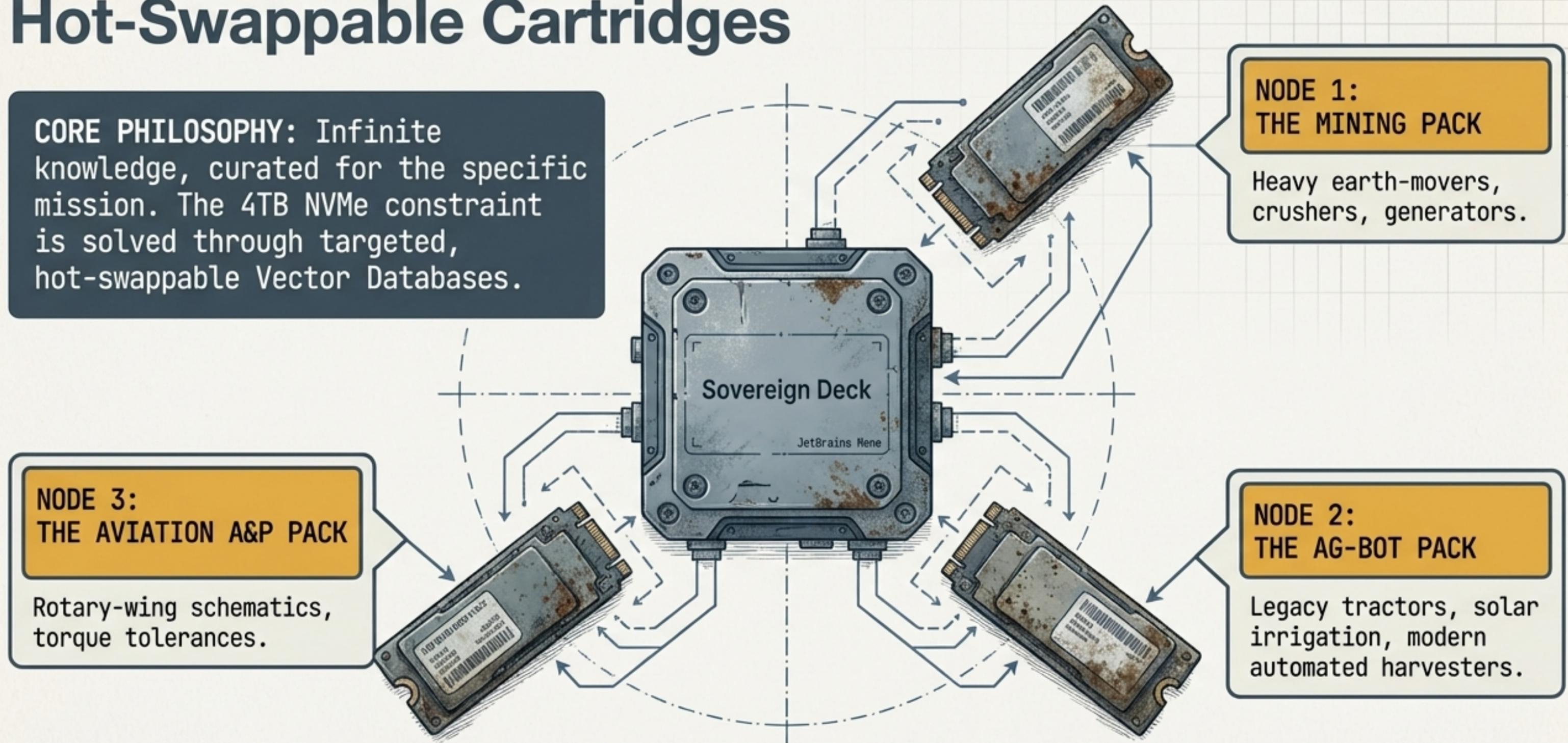
SYSTEM
(CAN Bus Override)

Connects via serial adapter to OBD-II / J1939 ports.

Translates proprietary fault codes and executes commands to clear DRM limp-mode lockouts.

Modular Autonomy via Hot-Swappable Cartridges

CORE PHILOSOPHY: Infinite knowledge, curated for the specific mission. The 4TB NVMe constraint is solved through targeted, hot-swappable Vector Databases.

NODE 1:
THE MINING PACK

Heavy earth-movers, crushers, generators.

Sovereign Deck

JetBrains Mene

NODE 3:
THE AVIATION A&P PACK

Rotary-wing schematics, torque tolerances.

NODE 2:
THE AG-BOT PACK

Legacy tractors, solar irrigation, modern automated harvesters.

Autonomous Risk Mitigation at the Edge

IF/THEN DIAGNOSTIC LOGIC

TRIGGER:
Visual Hallucination

VLM confidence score drops below 95%.

ACTION:
Hard Stop

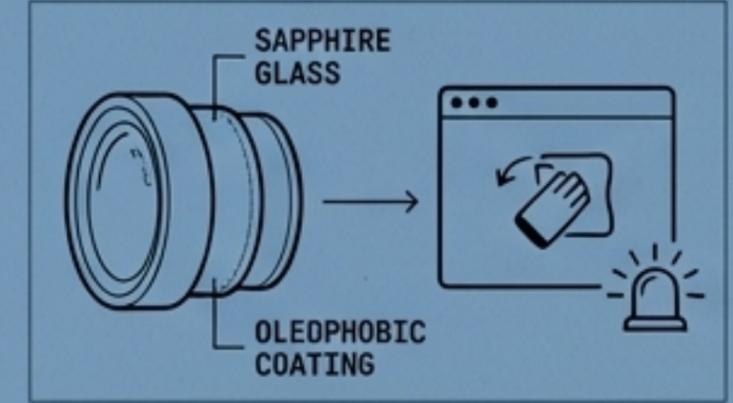AI refuses bypass instructions and forces manual input of stamped part numbers.

STAMPED
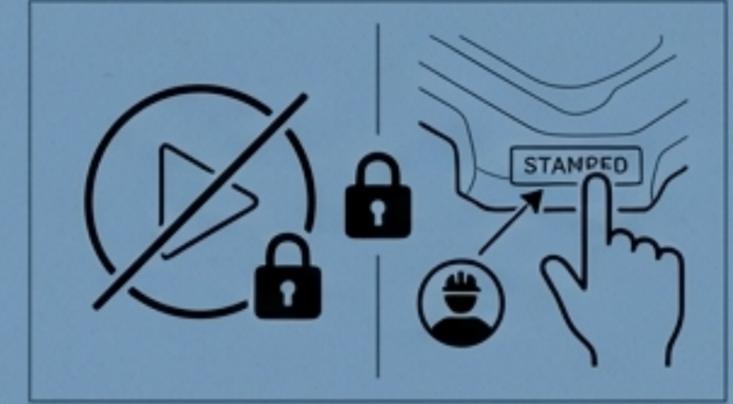
TRIGGER:
Environmental Obscuration
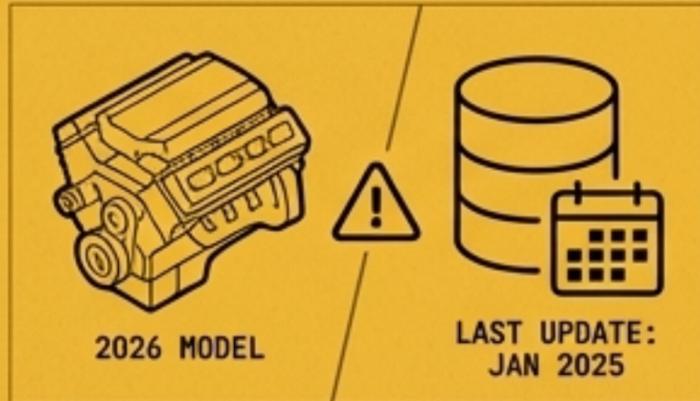
Mud or diesel fuel covers the camera lens.

ACTION:
Hardware Protection

Oleophobic sapphire glass + UI override prompting user to wipe lens and engage LED flash.
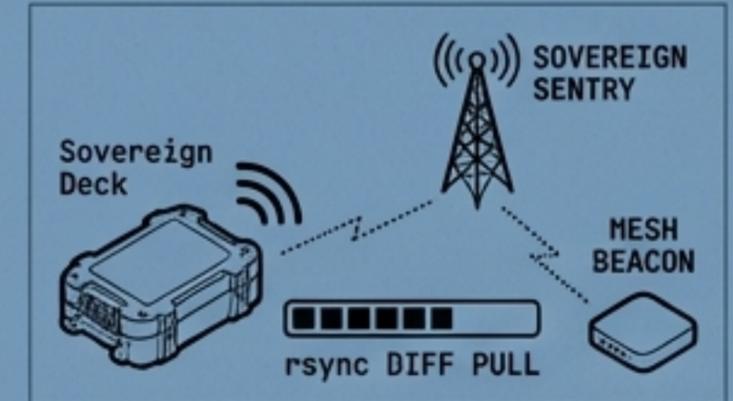
SAPPHIRE GLASS

OLEOPHOBIC COATING

TRIGGER:
Data Desynchronization

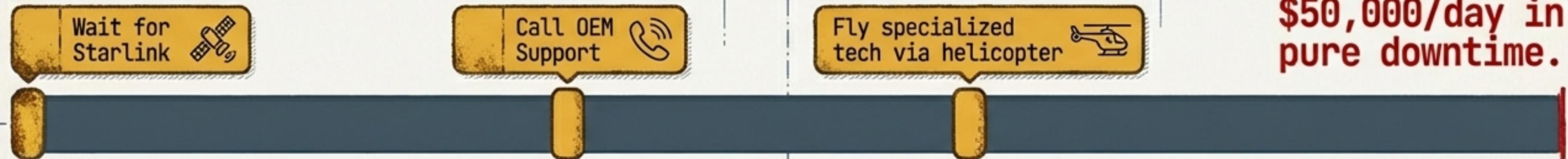Encountering a newly released 2026 engine on an 8-month-old database.

2026 MODEL

LAST UPDATE: JAN 2025

ACTION:
Opportunistic Sync

Differential pull (rsync) whenever the Deck passes a Sovereign Sentry or Mesh Beacon.

SOVEREIGN SENTRY

Sovereign Deck

MESH BEACON

rsync DIFF PULL

The Economics of Hardware Sovereignty

THE OLD PARADIGM

Wait for Starlink 🛰️

Call OEM Support 📞

Fly specialized tech via helicopter 🚁

$50,000/day in pure downtime.

THE SOVEREIGN PARADIGM

Scan with Field Medic

Diagnose locally

Bypassed in 20 minutes.
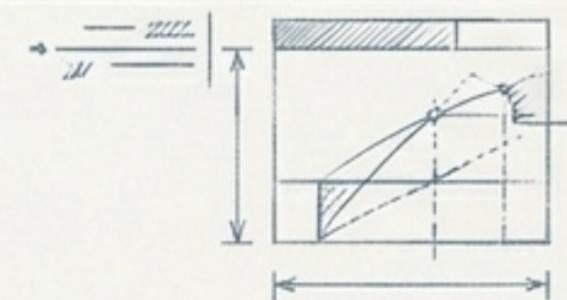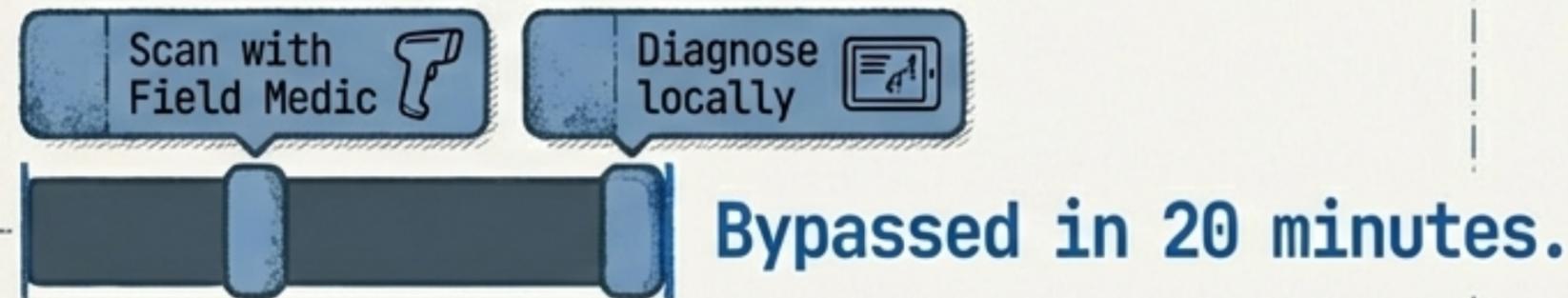
THE RESULT: Elevates basic on-site mechanics to master technicians instantly, increasing equipment resale value through immutable Locutus ledgers, and proving SLA compliance.
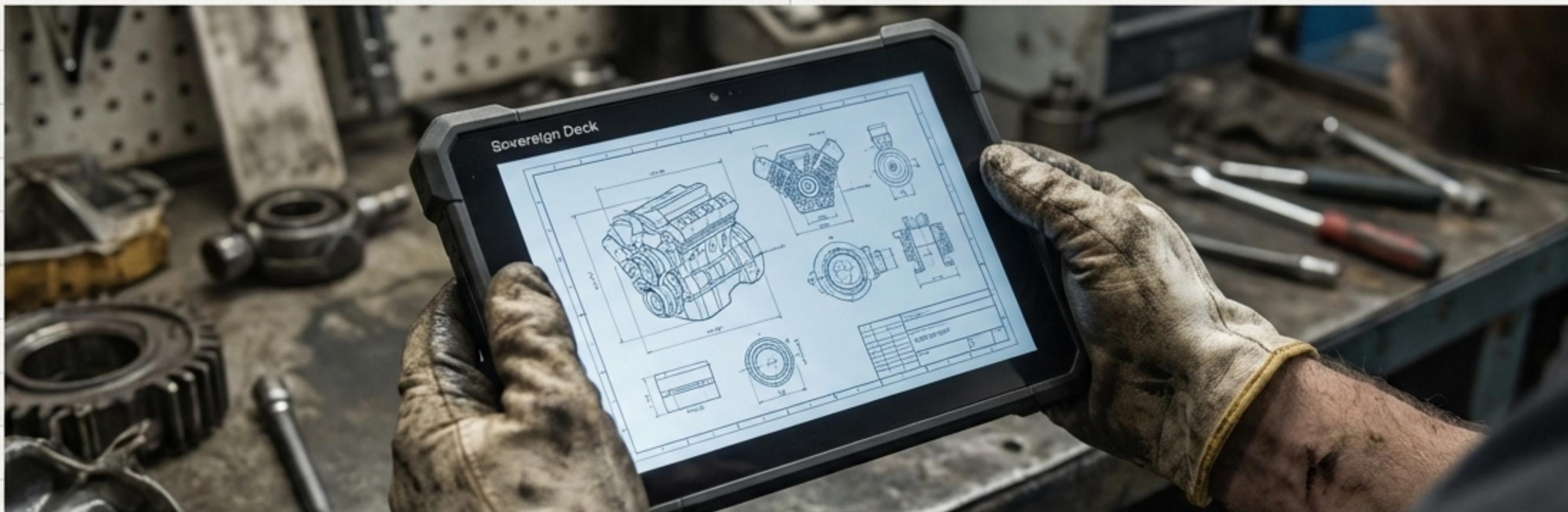
Absolutne Hardware Sovereignty

- ✓ Fifty years of industrial engineering knowledge.
- ✓ Zero bandwidth required.
- ✓ Zero cloud subscriptions.
- ✓ Complete operational control.