

InnerOS: Sovereign Multi-Agent Swarm

Most companies do not lack data. They lack memory.

InnerChispa LLC | Hackathon Band of Agents 2026

| The Corporate **Memory Gap**

Information is **dispersed** across visits, reports, and legacy documents.

- 🚫 Nobody remembers what happened before with a client.
- 🚫 Technical context is lost in fragmented siloes.
- 🛡 Privacy is the main barrier for Enterprise AI adoption.

The Solution

InnerOS acts as a sovereign bridge, transforming raw technical archives into actionable executive memory.

| System Architecture

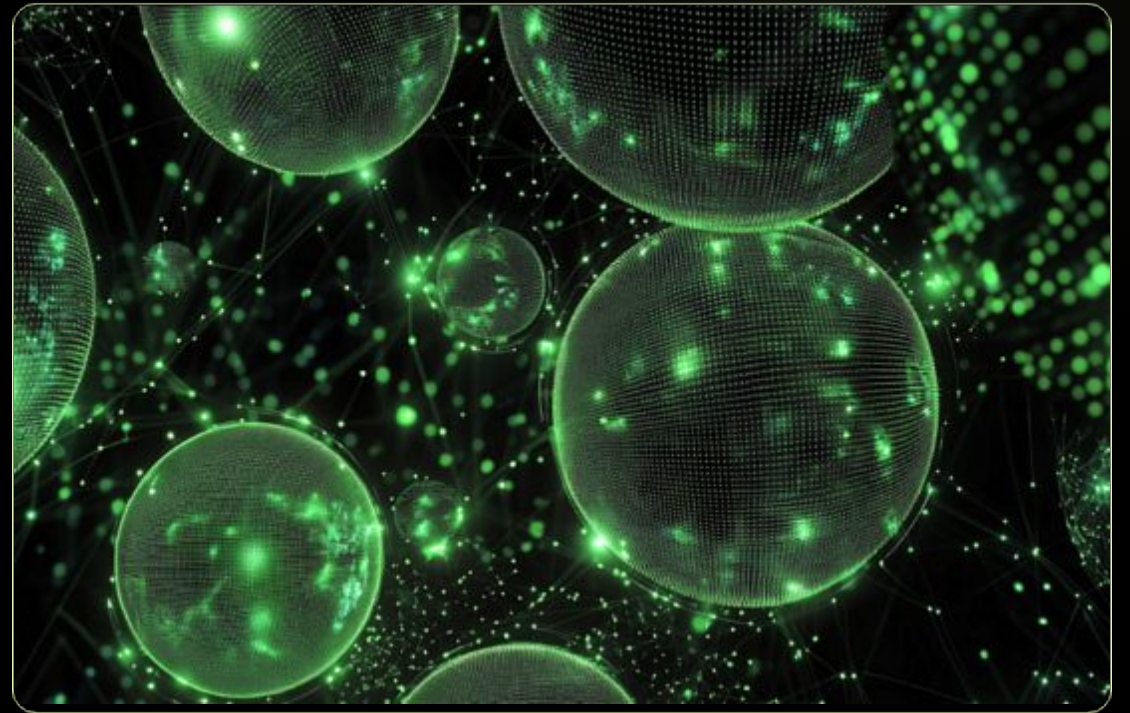
Dashboard (:5190): Unified Operator Console.

FastAPI (:8200): Swarm Orchestration Layer.

Band Network: Distributed Identity & Multi-Agent Mesh.

Hybrid Engine: Local Inference + Multi-Platform LLMs.

Omnichannel: Direct WhatsApp & Email SOP Delivery.



| Collaborative Band Mesh



Router

AG-001: Enroutes queries and defines orchestration logic using Featherless AI.



Memory

AG-004: Recovers legacy history from local MongoDB archives via MCP.



Analyst

AG-003: Evaluates risks and hardware failure causes via DeepSeek-R1 reasoning.



DocMaker

AG-005: Synthesizes analysis into high-impact Executive Reports in PDF format.

*Collaborative intelligence secured by the Band Network SDK.

| Verified Memory Proof

InnerOS doesn't guess; it **queries**. We use MongoDB as the ultimate source of truth for organizational interaction.

Core Datasets: Visits (PoE/NVR), Technical SOPs, Client Inspections, Legacy Docs.



Multi-Platform Intelligence

Ecosystem	Provider	Models Used	Function
Local / OS	Featherless / Ollama	Llama-3.1-8B / Neural-Chat	Routing & Local Memory
Global Frontier	OpenAI / AIMA	GPT-4o / DeepSeek-R1	Analysis & Coordination
Development	Google	Gemini 1.5 Pro	Orchestration & Refinement

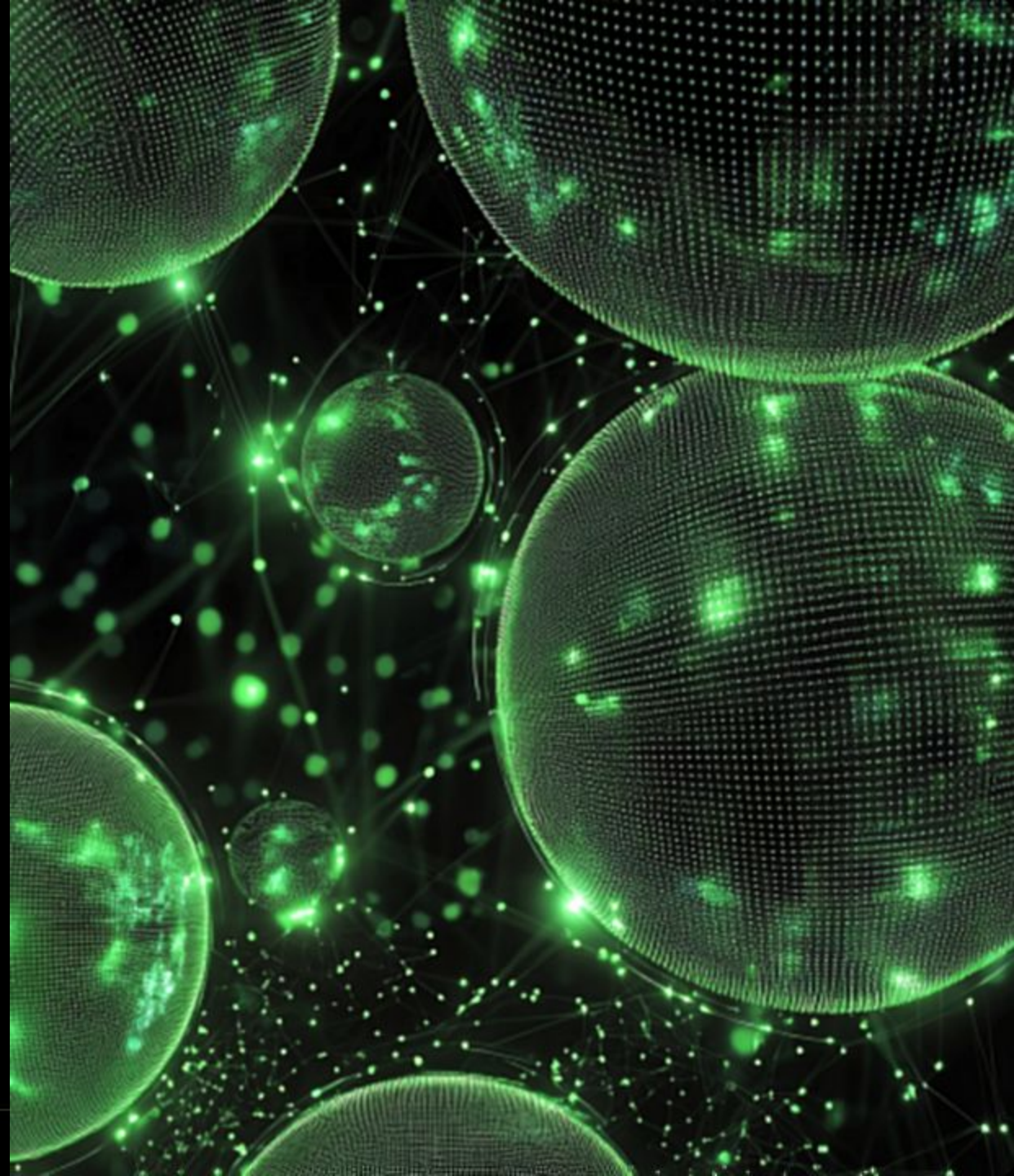
 A hybrid multi-platform stack for resilient enterprise-grade performance.

Ralphi-IA: The Ecosystem

More than a server, it's a **Sovereign Hub** that manages data and compute locally.

Internal Sovereignty

Ralphi-IA hosts the MongoDB core and orchestrates local/cloud LLMs. It ensures sensitive enterprise data remains within the private network, utilizing MCP for safe tool execution.



| Live Audit Trail

[AG-001] Router: @Memory retrieve legacy files for site...
[AG-004] Memory: @analyst 8 database hits recovered. Loading logs...
[AG-003] Analyst: @docmaker Root cause: PoE Budget Overload...
[AG-005] DocMaker: Final PDF report compiled and dispatched.

Full Verifiability: Every agent interaction is captured via Band SDK in the Live Console.

| Omnichannel Reporting



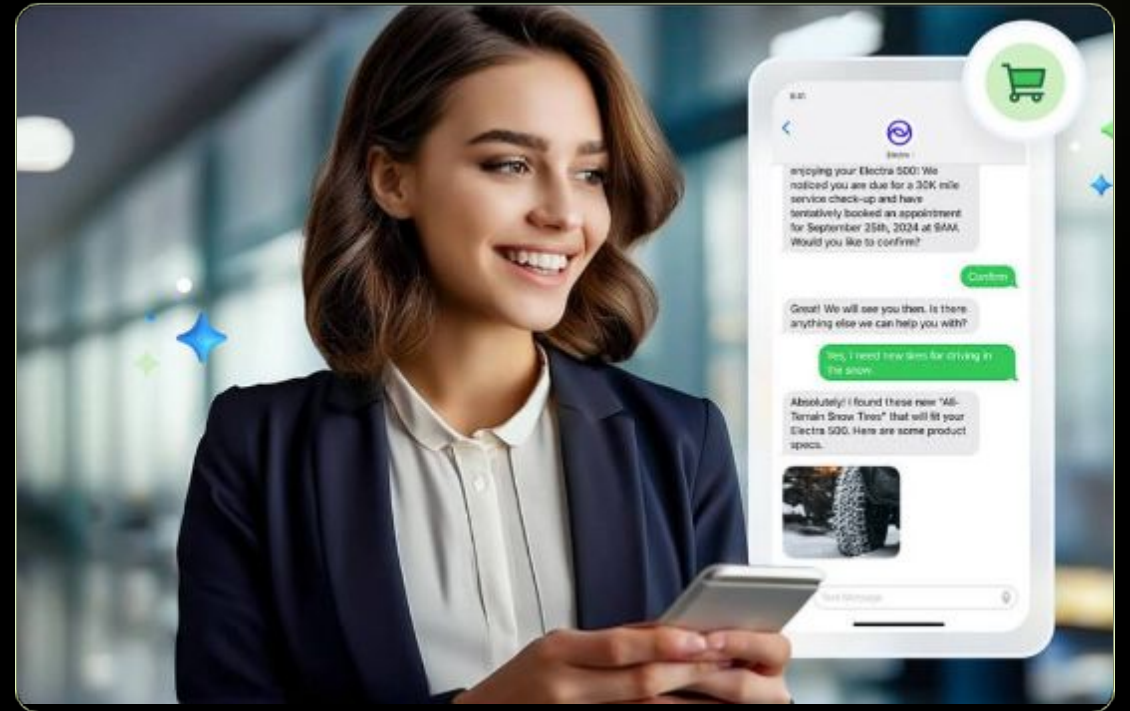
WhatsApp: Instant notification via Evolution API.



Email SMTP: PDF Report with unredacted technical insights.



Evidence: Every report includes MongoDB hits as proof.



| Field Case: PoE Failures

Torres de la Merced Success

The swarm cross-referenced visits (PCD-SOP-26000023) identifying recurring issues in 16-port PoE switches. It diagnosed a systemic power budget flaw and firmware defect.

Action: Automated fix SOP sent to technician's mobile in *Real-Time*.

8 Logs

Verified Database Evidence

| The Roadmap

Master Merge

Integrating the Band Mesh into the InnerOS production field flow.

Local Inference

Switching critical analyst tasks to Ollama for 100% offline compute.

Client Automations

Automated SLA reporting directly to final customers upon approval.

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"Bridging the Gap between Data and Memory"
