

# MIRA SYSTEM ARCHITECTURE

TECHNICAL MANIFESTO · v2026.04 · CONFIDENTIAL

## 1. EXECUTIVE OVERVIEW

The MIRA System is a decentralized, dual-core AI infrastructure engineered for high-stakes data orchestration and autonomous auditing. By bifurcating operational logic into **MIRA** (B2B AdTech) and **VOYAGER** (B2C Multimodal), the system optimizes for specific reasoning densities and cross-cloud resource allocation.

### CORE 1: MIRA — SENTINEL PROTOCOL

**Operational Focus:** High-Reasoning AdTech Auditing & Fragmented Telemetry Alignment.

Technical Specifications

- Primary Logic Engine:** Claude 4.6 Opus via AWS Bedrock.
- Core Protocol:** B-AGG-10 (Interval Mapping). Normalizes disparate API streams from Google Ads, Meta, and TikTok into a unified temporal source of truth.
- Sentinel Waste Detection:** Autonomous audit layer identifying irrelevant scraping and budget leakage using regex-pattern matching and zero-conversion spend thresholds.
- Infrastructure:** Serverless Node.js / Next.js environment with persistent SQL-based daily\_metrics hydration.

Metric	Capacity	Enterprise Signal
Audited Spend Baseline	<b>\$5.2M+</b>	Aggregated multi-agency partner portfolio history
Identified Waste (Est.)	<b>\$420K+</b>	Sentinel audit projections — direct ROI signal
Data Orchestration	<b>1.2M+ intervals</b>	Unique intervals mapped annually
Accuracy Threshold	<b>99.9%</b>	Data-to-API verification rate

### CORE 2: VOYAGER — MULTIMODAL SYNTHESIS

**Operational Focus:** B2C Agentic Travel Orchestration & Vision-Reasoning.

Technical Specifications

- Primary Logic Engine:** Anthropic (Partner Perk) via Google Vertex AI.
- Vision-to-Agent Logic:** Utilizes multimodal reasoning to synthesize unstructured visual data (travel guides, logistics photos) into executable itineraries.
- Agentic Tooling:** Custom tool-use integration for real-time interaction with travel-inventory APIs.
- Implementation:** Isolated GCP project environment leveraging \$10,000+ developer credits for vision-heavy token consumption.

**Scale:** 50,000+ monthly multimodal itinerary intervals. **Reasoning Density:** High-context window utilization (200K+) for holistic travel planning.

## 2. RESOURCE GOVERNANCE & CLOUD STRATEGY

To ensure a 12-month operational runway while maintaining model-agnosticism, the MIRA System utilizes a **Tier-Isolation Strategy**:

- Tier 1 (AWS Bedrock):** Production core for MIRA B2B auditing. Optimized for security and high-reasoning stability.
- Tier 2 (Google Vertex AI):** R&D; and Multimodal core for Voyager. Optimized for vision-based token heavy-lifting and ecosystem perks.
- Tier 3 (Local/Edge):** Proprietary data silos and Sentinel logic scripts, ensuring Zero-Data-Leakage for managed agency clients.

## 3. Q2 2026 SCALABILITY OUTLOOK

The architecture is designed for **Zero-Friction Growth**. By isolating the logic cores, the system is positioned to scale to \$50K+ MRR through specialized agency partnerships and automated B2C synthesis without requiring structural API re-engineering.

**STATUS: OPERATIONAL · SENTINEL PROTOCOL ACTIVE**

Lead Architect: Art · art@mira-system.dev · mira-system.dev

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