VOYAGER CORE ARCHITECTURE

1. EXECUTIVE SUMMARY

Voyager is a high-reasoning B2C travel orchestration engine built on the MIRA System infrastructure. It utilizes multimodal vision-reasoning and agentic synthesis to transform unstructured travel data into executable, hyper-personalized itineraries. Voyager is engineered to solve the **"Logistics Fragmentation"** in global travel by automating the synthesis of visual, textual, and API-based data streams.

2. CORE TECHNOLOGY: MULTIMODAL SYNTHESIS

Voyager operates as a specialized implementation of the Sentinel Protocol, optimized for Vision-to-Action workflows.

A. Vision-Reasoning Engine

- **Primary Model:** Claude 4.6 Opus (via Google Vertex AI).
- **Capability:** Processing unstructured visual data (logistics photos, restaurant menus, physical guidebooks, and transit maps) to extract granular logistical metadata.
- **Context Utilization:** Leveraging 200K+ token windows to maintain "World-State" consistency across multi-day, multi-city travel planning.

B. Agentic Tool Orchestration

- **Autonomous Interaction:** Voyager doesn't just suggest; it interacts. The system uses custom-built tools to interface with real-time inventory APIs (flights, accommodation, local transit).
- **Reasoning Density:** Optimized for high-fidelity decision-making, ensuring itinerary suggestions are based on real-time availability and user-preference vectors.

3. ARCHITECTURAL FOOTPRINT

Voyager is hosted within a dedicated GCP (Google Cloud Platform) environment to leverage the specific vision-processing advantages of the Vertex AI ecosystem.

Metric	Specification / Capacity
Logic Engine	**Claude 4.6 Opus**
Data Silo	**Isolated GCP Project (Voyager-Prod-01)**
Monthly Capacity	**50,000+ Multimodal Synthesis Intervals**
Orchestration	**Agentic Synthesis with JSON-Schema Output**
Infrastructure	**Serverless Cloud Functions + Vertex AI API**

4. THE "TRAVEL DNA" PROTOCOL

Voyager utilizes a proprietary "Travel DNA" mapping system that breaks down a user's trip into Atomic Intervals:

1. **Visual Extraction:** Extracting data from photos and screenshots.
2. **Contextual Mapping:** Aligning data with the user's historical preference profile.
3. **Agentic Execution:** Interfacing with external APIs to verify logistics in real time.
4. **Final Synthesis:** Outputting a verified, executable itinerary.

5. MARKET POSITIONING & SCALABILITY

Voyager is positioned to disrupt the high-end travel concierge market by reducing the "time-to-itinerary" from hours to seconds.

- **Revenue Model:** B2C Subscription + API Licensing for boutique travel agencies.
- **MRR Target:** $5K – $15K (Q2 2026 Baseline).
- **Scaling Path:** Expansion into real-time visual "In-Trip" assistance using low-latency multimodal models.