Thiran AI: Speak. Search. Solve.

Agentic RAG-Powered Conversational AI for Law Enforcement

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1. Executive Summary

Thiran AI is a mission-critical, secure, and agentic large language model (LLM) platform purpose-built for defense, intelligence, and public-sector operations. Designed to meet the stringent requirements of national security, Thiran AI ingests, indexes, and augments multimodal data including text, imagery, video, and geospatial intelligence—and orchestrates a network of specialized agents to deliver real-time, citation-backed insights. This platform significantly compresses decision cycles from days to minutes, enabling informed actions in high-stakes, data-saturated environments. By integrating structured and unstructured data through intuitive interfaces and modular agent workflows, Thiran AI becomes a force multiplier for analysts, field operators, and command centers alike.

2. The Problem

Government, defense, and intelligence communities are inundated with vast amounts of unstructured and heterogeneous data including mission reports, satellite imagery, surveillance video, Open Source intelligence (OSINT), and human intelligence (HUMINT). This data deluge makes timely analysis extremely difficult.

Current AI tools fail to provide:

- **Domain specificity** needed for mission context.
- **Geospatial intelligence integration** for real-time situational awareness.
- **Robust auditability** for classified workflows requiring secure provenance tracking.

As a result, analysts rely on slow, manual processes to derive insights, leading to decision-making lags of several days. These delays increase mission risk, operational overhead, and can have life-or-death consequences in active defense or disaster recovery situations.

3. The Solution: Thiran AI

Thiran AI provides a tightly integrated suite of capabilities tailored for high-security and mission-focused deployments:

Agentic RAG Core

- Unified pipeline for retrieving relevant data and generating insights.
- Modular, orchestrated agents for search, data retrieval, tool execution, and automated reporting.
- Built-in citation tracking to ensure traceability of all insights.

Multimodal & Geospatial Chat

- Unified embedding and indexing of text, documents, images, and GIS data.
- Spatial intelligence through an interactive map-based query interface.
- Correlate locations, entities, and events for mission-critical geospatial understanding.

No-Code Agent Factory

- Drag-and-drop workflow builder for non-technical users.
- Define agent roles, connect data sources, and build logic flows visually.
- Enables rapid deployment of purpose-built agents in minutes for various operational needs.

Text-to-API Workflow Engine

- Translate natural language commands into structured API calls.
- Integrate with operational systems and external data feeds.
- Automatically summarize outcomes with full citations.

4. Key Differentiators

- **Mission-Aligned AI**: Tailored prompts, agents, and models for government and defense use cases.
- **Multimodal Intelligence**: Combine reports, imagery, maps, and signals into a unified intelligence layer.
- **Secure Deployment Options**: Designed for environments with high compliance and security requirements.

- **Scalable and Modular**: Adaptable to both small-unit and enterprise-wide deployments.

5. Business Model

- **Subscription Licensing**: Annual pricing based on data volume and user counts.
- **Professional Services**: Custom deployment, training, and integration.

6. Platform Scope

- Ingest structured and unstructured data (e.g., text, documents, images, geospatial data).
- Provide intuitive user interfaces:
    - Conversational chat with source traceability.
    - Map UI for location-based queries.
    - No-Code builder for custom agent workflows.
- Offer programmatic access:
    - Semantic search.
    - Agent orchestration.
    - Report generation.
- Ensure compliance with security and privacy requirements.

7. Core Functional Requirements

Data Ingestion & Indexing

- Accept bulk uploads from multiple sources.
- Preprocess using OCR, metadata extraction, and entity recognition.
- Embed data into a unified vector space for semantic retrieval.

Retrieval-Augmented Generation (RAG)

- Retrieve contextually relevant data from the indexed corpus.
- Combine retrieval with generation to produce well-grounded outputs.
- Maintain traceability to original documents.

Agent Factory

- Visual interface for defining custom agents and logic.
- Ability to integrate external tools and datasets.
- Supports condition-based workflows.

Interfaces

- Real-time chat with citation support.
- Interactive map with search, pin-drop, and data overlay capabilities.
- Admin dashboard with usage monitoring and access controls.

Text-to-API Workflows

- Interpret natural language queries and trigger external data sources.
- Summarize and contextualize the responses.

Reporting & Export

- Auto-generate structured briefs and reports.
- Export options for multiple document formats.

8. Non-Functional Requirements

- **Performance**:
    - Fast response times for typical queries.
    - Efficient handling of multimodal and complex queries.
- **Scalability**:

    - Designed for large data volumes and multiple concurrent users.

- **Security**:
    - Data encryption, access controls, and auditing.
- **Availability**:
    - High system uptime with disaster recovery capabilities.
- **Compliance**:
    - Meets industry standards for privacy and security.

9. System Architecture (Conceptual Overview)

- **Data Ingestion Layer**: Handles input from various structured and unstructured sources.
- **Embedding & Indexing Layer**: Converts data into a unified semantic representation.
- **Orchestration Layer**: Coordinates agent workflows and system logic.
- **Language Model Layer**: Powers interpretation, generation, and summarization.
- **User Interface Layer**: Enables chat, map interaction, and admin control.

10. Data Flow & Workflow

1. **Upload & Preprocess** → Ingest and clean data.
2. **Embed & Index** → Store semantically for retrieval.
3. **User Query** → Chat or map-based search.
4. **Retrieval Agent** → Locate relevant data.
5. **Tool Invocation** → Activate specific agents or integrations.
6. **Generative Synthesis** → Create insight-rich responses.
7. **Output & Logging** → Present results with full traceability.