

Case Study

The Future of Research and Compliance: A Private Capital Firm's Conversational AI Journey



Customer Overview

Customer

Private Capital Investment Firm

Profile

The investment firm manages \$18.5 billion in assets on behalf of a broad array of institutional clients and professional asset allocator.

Industry

Financial Services

Services

Enterprise AI Solution (Prometheus, built on Microsoft Azure + Azure AI Foundry)

Business Need

The investment firm's existing workflows were manual, time-consuming, and prone to compliance risks. The organization needed a solution to balance innovation with integrity, accelerating productivity while remaining entirely governed. It sought a secure, enterprise-ready AI platform that could:

- Reduce research time for analysts, who spend days on document-intensive tasks.
- Enhance client servicing with faster and more accurate responses.
- Provide fund, strategy, and portfolio insights in real-time.
- Ensure compliance with strict financial regulations, avoiding risks of using public LLMs like ChatGPT.

Approach and Solution

The engagement began with four high-value use cases:

1. **Internal Research Assistant:** Reduced research time from days to minutes by querying documents, fund details, and company data.
2. **Client Advisor:** Generated client-specific strategies and investment recommendations, aligned to demographics and risk management.
3. **Fund and Strategy Explorer:** Delivered real-time answers on portfolios, sectors, and investment approaches.
4. **Compliance-safe AI Chat:** Restricted responses to approved disclosures, avoiding forward guidance.

Despite initial analyst resistance to workflow changes, Synoptek improved adoption by:

- Collecting user feedback to refine the UI.
- Delivering targeted training.
- Applying RBAC policies to ensure appropriate access by user group.

Innovation in AI Architecture and Design

Synoptek developed Prometheus, a modular conversational AI Platform, built on Microsoft Azure and Azure AI Foundry, with the following key features:

1. **Integration with LLM APIs:** OpenAI, LLaMA, and Azure AI Foundry for model selection and response generation.
2. **Retrieval Augmented Generation (RAG):** Ensures accurate, grounded responses based on corporate data.
3. **Containerized architecture:** Azure Container Apps, Docker, and Azure Container Registry for scalability.
4. **Performance optimization:** Batch processing and efficient API utilization to balance costs and speed.
5. **Monitoring and analytics:** Azure Monitor and Application Insights for visibility.
6. **Secure data handling:** PostgreSQL + Azure Storage for chat history, with role-based access control (RBAC).
7. **Customizability:** Dynamic model switching, domain-specific prompt engineering, and custom GPT creation.

Trustworthy AI Principles

Prometheus was built with Microsoft's Trustworthy AI guidelines, ensuring:

- **Security:** Azure-native encryption at rest/in transit, RBAC, and audit logging.
- **Privacy:** Hosted in customer-owned tenants; no fine-tuning on private data.
- **Compliance:** Configurable disclosure limits to maintain legal/regulatory safety.
- **Transparency:** Tagged, versioned, and trackable custom GPTs.

Business Benefits

By implementing Prometheus, the investment firm modernized its research and client servicing workflows and established a secure, compliant, and cost-efficient AI environment. The solution has delivered significant operational efficiencies, financial savings, and a clear competitive edge:

- **Efficiency Gains:** Research that took days now takes minutes, delivering 80–90% time savings on document-heavy tasks.
- **Faster Client Service:** Analysts provide answers and recommendations 2–3x faster, improving client experience.
- **Compliance Assurance:** Every response is 100% compliant, ensuring regulatory safety in a highly regulated industry.
- **Cost Savings:** Token-based licensing keeps usage under \$5 per user/month, saving ~\$25 per user compared to alternatives.
- **Scalability and Reusability:** Prometheus is already deployed across financial services, healthcare, legal, and industrial sectors, proving its repeatability and adaptability.
- **User Adoption:** With training and UI refinements, analysts now embrace the system, using AI confidently to drive outcomes.

Prometheus is a repeatable enterprise AI framework. Synoptek has since replicated the solution across multiple industries, including healthcare, legal, and industrial clients.

Planned enhancements include:

- Low-code/no-code interfaces for faster GPT customization.
- Verticalized GPT libraries to support industry-specific use cases.
- Copilot Studio compatibility for deeper Microsoft ecosystem integration.



We are head and shoulders above the competition regarding internal AI tools.

– CTO & CIO

About Synoptek

Synoptek delivers accelerated business results through advisory-led, transformative full-life-cycle systems integration and managed services. We partner with organizations worldwide to help them navigate the ever-changing business and technology landscape, build solid foundations for their business, and achieve their business goals.