

Transforming capital markets with a scalable GenAI platform

Client

One of the world's leading stock exchanges

Company Size

9,000+ employees

Location

Headquartered in New York

Featured Partners



One of the world's leading stock exchanges sought to leverage the power of generative AI (GenAI) while maintaining strict standards for data security and governance. The organization needed a solution that could enable secure, scalable access to AI tools like content generation, summarization, and meaning-based search. They particularly needed a strategy that would avoid risking data leakage or compliance issues.

Marlabs delivered a GenAI platform that empowered the client to create and manage custom AI solutions within a secure, cloud-based environment. The result was a transformative leap in operational efficiency, reduced costs, and stronger data governance across AI-driven workflows.



AI Strategy



Custom
Generative AI
Solutions



AI Governance



Secure Cloud
Deployment



The Challenge: Enabling secure AI transformation at scale



Objective: Enable the use of GenAI across business workflows to accelerate insights and reduce manual effort.



Existing Issues: A lack of securely governed access to generative AI posed risks of data leakage and compliance violations.



Solution Needed: A scalable, cloud-based AI platform with built-in governance and security mechanisms.



Outcome: The GenAI platform enabled secure AI usage while significantly improving operational efficiency and decision-making speed.



The client wanted to leverage generative AI across its operations while safeguarding proprietary data and ensuring AI use remained compliant with strict governance requirements. Achieving this required a platform that could support innovation without compromising security, control, or scalability.

The Solution: Delivering a secure & scalable GenAI platform

Marlabs designed and implemented a GenAI platform hosted in the cloud to allow users to create, manage, and access custom AI solutions. This platform offered capabilities like summarization, content generation, and code generation and embedded a strong framework for governance, access control, and data protection.

Phase 1: Platform Strategy & Architecture

Marlabs collaborated with the client to define platform requirements, security protocols, and cloud infrastructure design.

Workstreams:

- Requirements documentation
- Cloud architecture blueprint
- Governance policy framework

Phase 2: AI Skill Development & Integration

The team built modular AI capabilities tailored to client use cases, such as summarization and code generation.

Workstreams:

- Skill design templates
- Use case alignment
- Testing & validation

Phase 3: Security & Governance Implementation

We established a robust governance layer to enforce safe AI usage and prevent data leakage.

Workstreams:

- Access controls
- Data classification policies
- Audit logging setup

Phase 4: Cloud Deployment & Enablement

Our team deployed the platform using modern infrastructure tools to ensure scalability and performance.

Workstreams:

- AWS infrastructure provisioning
- Automation via Terraform
- User onboarding & training

Services and Technologies Used:

Services:

- GenAI Strategy & Consulting
- Custom AI Skill Development
- AI Governance Framework Design
- Secure Cloud Deployment

Technologies:

- AWS – Lambda, Bedrock, and Q
- Python
- Terraform
- PgVector

The Results: Impact on the client organization

The GenAI platform delivered by Marlabs enabled the client to securely leverage generative AI in their operations and unlock faster insights to reduce repetitive workload and improve decision-making processes. With strong governance built in from the start, the client now has a foundation for safe, scalable AI use across the enterprise.



Operational Efficiency: AI-powered summarization provided accelerated access to insights.



Faster Decision-Making: This project enabled rapid summarization and retrieval of relevant data.



Cost Reduction: This solution minimized manual effort in content creation and documentation, which reduced overhead costs.



AI Scalability: We provided a secure foundation for growing AI use across departments.



Risk Mitigation: The built-in governance framework reduces chances of data breaches.



Improved Search Accuracy: Meaning-based search capabilities enhanced information retrieval accuracy and speed.