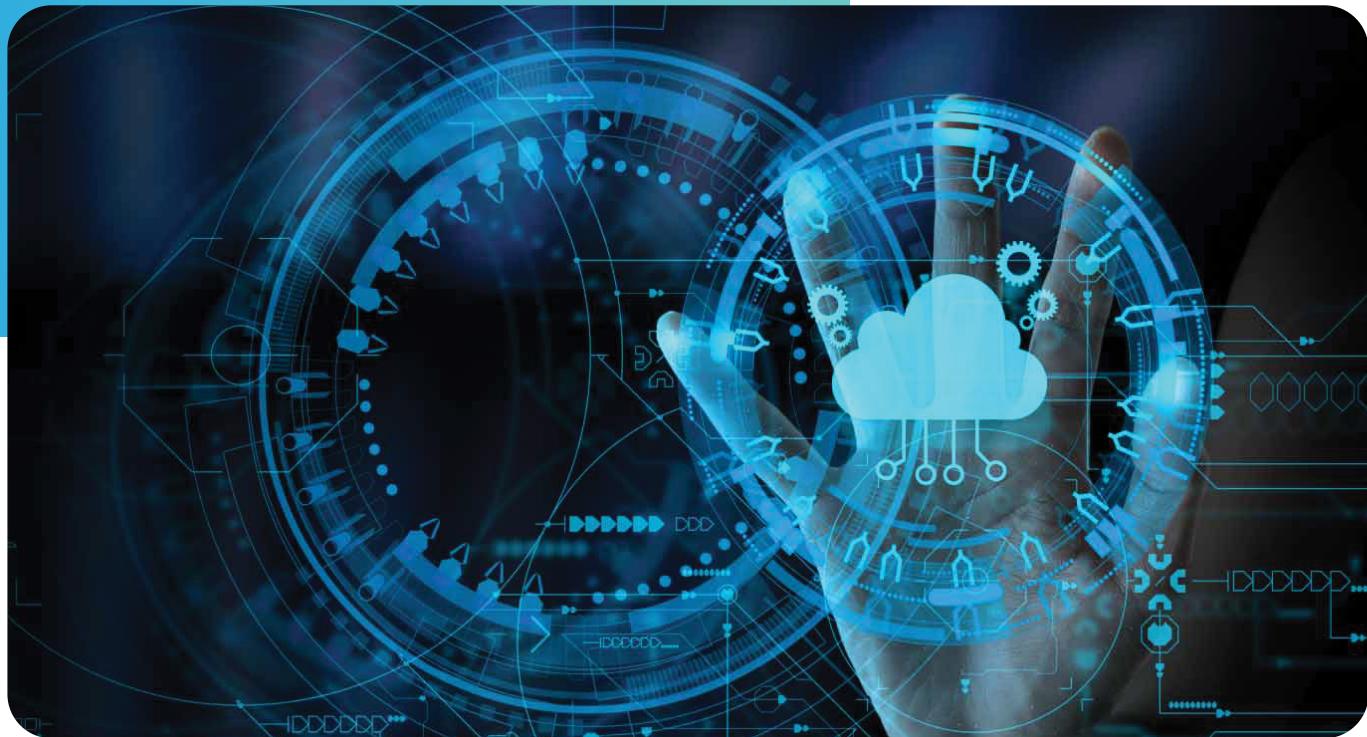


SUCCESS STORY



DRIVING ESG EXCELLENCE: TRANSFORMING DATA MANAGEMENT WITH AUTOMATED WORKFLOWS POWERED BY AWS SERVICES

PROJECT OVERVIEW

The client required a cloud-based data management platform to facilitate data collection, validation, and integration with their ESG assessment platform. The data platform needed to be designed to gather ESG performance metrics from companies, adhering to standards such as GRI, SFDR/PAI, IRIS+, and SDGs.

SOLUTION DELIVERED

Data Engineering, Advanced Analytics,
Cloud Engineering

CLIENT DOMAIN

ESG Assessment Platform

KEY HIGHLIGHTS

- Delivered the solution at an impressive 60% faster time-to-market.
- Built a highly scalable data curation portal with interactive dashboards, enabling efficient data collection and analysis for ESG professionals.

ABOUT CLIENT

The client assists investors in incorporating Environmental, Social, and Governance (ESG) considerations into their investment strategies. They provide ESG data and signals on listed companies, as well as analytical tools to interpret and integrate ESG factors into risk assessments, stock selection, performance monitoring, and engagement with issuers.

BUSINESS REQUIREMENTS

- Build a robust, cloud-based data management platform capable of handling data from thousands of companies for multiple clients, incorporating multiple taxonomies to facilitate comprehensive performance assessment.
- Enable concurrent access for hundreds of users.
- Provide customers with a unified view of curated data, with user-based access controls.
- Support bulk data processing through Excel and JSON-based data exchange.
- Develop a modernized infrastructure to achieve high availability, scalability, centralization, and ensure business continuity and disaster recovery for all governed data. Reduce data delivery latency compared to traditional data architectures.

SOLUTION HIGHLIGHTS

- Indium proposed a modern architecture suitable for cloud-based web applications, considering the business requirements. The recommended solution involved an application stack and an AWS infrastructure deployment architecture with DevOps components.
- The data collection and curation portal was developed using various AWS Cloud Infrastructure services, including CloudFront, Route 53, EC2, S3, and the database in MongoDB.
- The data architecture was designed to ensure low latency, guaranteeing excellent application performance at all times. This allows the platform to scale seamlessly and accommodate the growth of data analysts as more companies are onboarded.

• Indium provided a highly available data infrastructure for DNS management and traffic management, enabling efficient monitoring of system health and routing traffic from multiple organizations simultaneously. This accelerated data availability for analysts by leveraging numerous data points used by the client.

- To ensure high availability, reliability, and data security, AWS EC2 was utilized to host the data curation portal, while data was stored in AWS S3, providing 99.999% durability of objects. The data was stored across multiple Availability Zones within a region, ensuring document backup and disaster recovery.
- The platform primarily relies on Amazon CloudWatch for monitoring purposes. Additionally, a new utility was developed in CloudWatch to restart the server in instances where a particular service is not running.

BUSINESS IMPACT

- Accelerated time-to-market by over 60% with efficient solution delivery.
- Developed a scalable data curation portal and interactive dashboards, catering to diverse user roles and enhancing data entry and ESG analysis capabilities.
- Streamlined data collection process, enabling analysts to perform quick and error-free data collection.
- Implemented a seamless workflow for smooth approvals and verification processes.
- Automated validations and calculations within the system, eliminating manual errors.
- Generated comprehensive and detailed JSON outputs for efficient company assessments.

TECH STACK

AWS Secrets Manager, AWS Service Catalog, AWS Key Management Service, AWS Elastic Load Balancing



mongoDB®



ABOUT INDIUM

Indium Software is a fast-growing Digital Engineering company, focused on building modern solutions across Applications, Data, and Gaming for its clients. With deep expertise in next-gen offerings combining data and applications, Indium offers a wide range of services including Product Engineering, Low-Code development, Data Engineering, Ai/ML, Digital Assurance, and end-to-end Gaming services.



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