Building a Unified, Governed Enterprise Data Platform on Databricks for a Big Four accounting firms

Industry	Business Presence	HQ
Financial Services	Global	United Kingdom

About the client

Headquartered in the UK, the client is one of the Big Four accounting firms, providing audit, consulting, financial advisory, risk advisory, tax, and legal services to leading organizations worldwide. The firm helps its clients address complex challenges and uncover new opportunities that make their businesses more competitive, sustainable, and purpose-led.

Challenges

The client operated across a fragmented data landscape, with information distributed across multiple business divisions, on-premises databases, files, APIs, ERP systems, and enterprise applications. The lack of standardized metadata, documentation, ownership, and consistent data quality made it difficult to establish a trusted enterprise-wide view of data.

At the same time, large data volumes, complex historical migration requirements, multiple ingestion patterns, and demanding transformation workloads created challenges around scalability and processing performance. The client also needed stronger governance, lineage, security, auditing, and compliance capabilities while controlling cloud costs and consistently meeting SLA commitments.

Faced with these data, governance, scalability, and performance bottlenecks, the client needed a modern enterprise data platform that could unify disparate data sources, support complex ingestion and processing requirements, strengthen governance, and scale efficiently with evolving business needs. The client selected Aspire Systems to address these challenges and design a tailored, scalable solution that could modernize its data ecosystem while supporting enterprise-wide analytics and reporting.

Our approach

We began by assessing the client's existing data landscape, ingestion patterns, processing requirements, governance needs, and performance bottlenecks. Based on these findings, we designed a Databricks-led data architecture focused on scalable processing, reusable ingestion, governed data transformation, and enterprise-wide analytics.

Our implementation approach included:

- Using Azure Databricks as the primary data engineering and transformation platform.
- Adopting a Bronze, Silver, and Gold Medallion Architecture to progressively transform raw data into trusted, business-ready datasets.
- Implementing Delta Lake to support reliable transactions, schema evolution, and high-performance processing.
- Building reusable ingestion frameworks for databases, files, APIs, ERP applications, and external sources.
- Embedding data quality validation within ingestion and transformation workflows.
- Implementing Unity Catalog for centralized governance, metadata management, discovery, lineage, and fine-grained access control.
- Optimizing Databricks compute workloads to improve processing efficiency and performance.
- Integrating the platform with Azure storage, orchestration, monitoring, security, CI/CD, and enterprise analytics services.

Solution

Aspire Systems designed and implemented a Databricks-led enterprise data platform that unified data ingestion, transformation, governance, and analytics within a scalable Azure ecosystem. Azure Databricks served as the core processing and transformation layer, enabling the client to handle complex historical migration, incremental processing, large-scale transformations, and multiple ingestion patterns across enterprise data sources.

The solution combined Databricks with Azure storage, orchestration, governance, reporting, security, and monitoring services to create a reliable foundation for governed enterprise analytics and self-service BI. Also, we helped the client modernize its data estate by migrating data from on-premises databases and other enterprise sources to a Databricks-led cloud data platform on Azure. The solution was designed to support historical migration, incremental processing, and near real-time ingestion while creating a scalable, governed foundation for enterprise analytics and reporting.

- Azure Databricks was used as the primary data engineering and transformation platform.
- A Bronze, Silver, and Gold Medallion Architecture was adopted for scalable and structured data processing.
- Delta Lake was implemented to support ACID transactions, schema evolution, and high-performance analytics.
- Automated ingestion frameworks were developed for databases, files, APIs, ERP systems, SuccessFactors, and external sources.
- Data quality validation was embedded across ingestion and transformation layers.
- Unity Catalog centralized metadata management, data discovery, lineage, sensitive-data classification, and fine-grained access control.
- Azure Data Lake Storage Gen2 provided centralized storage for raw and processed data.
- Azure Synapse Analytics and Databricks SQL Warehouse supported enterprise reporting, analytics, and downstream consumption.

Business outcomes



Reduced end-to-end data processing time and improved the availability of business-ready data for analytics and reporting.



Accelerated the onboarding of new data sources through reusable and automated ingestion frameworks.



Improved large-scale batch processing performance through optimized Databricks compute workloads.



Reduced manual data preparation and reconciliation through automated recurring data pipelines.



Strengthened governance, access control, auditing, metadata management, and end-to-end data lineage across the enterprise.



Established a scalable and governed single source of truth for enterprise reporting, self-service analytics, and downstream applications.



About Aspire Systems

Aspire Systems is a global technology services firm serving as a trusted technology partner for our customers. We work with some of the world's most innovative enterprises and independent software vendors, helping them leverage technology and outsourcing in our specific areas of expertise. Our core philosophy of "Attention. Always." communicates our belief in lavishing care and attention on our customer and employees.

For more info contact:
info@aspiresys.com or visit www.aspiresys.com