



Navigating the Data Labyrinth: How Indium Charted a Reinvestment Fund Solution Provider's Path with an Enterprise Data Warehouse and Data Lake

SUCCESS STORY

Client Overview

The client is a renowned Reinvestment Fund Solutions provider on a mission to rewrite the financial playbook and fuel the growth of underserved communities across the United States. With a vision to create lasting impact, they focus on providing tailored financial solutions that help spark growth and opportunity where it's most needed. Their innovative products and services serve as the bridge that connects untapped potential with financial empowerment.

Yet, despite their far-reaching mission, the client found themselves tangled in a web of disconnected data. Their loan servicing applications, housing vital information across SQL servers, were riddled with complexities that hindered their ability to make data-driven decisions.

To truly leverage this wealth of information, they recognized the need for a robust partner who could help transform their data chaos into a strategic asset. They sought a powerful data warehouse and BI setup—one that could streamline their operations and unlock actionable insights from their data to drive smarter, faster decisions and amplify their impact.



Outdated Processes, Missed Opportunities: The Battle to Tame Disorganized Data

The client was grappling with a monumental data challenge that threatened to undermine their ability to make informed decisions and maximize the potential of their loan servicing applications. With years of raw, unstructured data and a lack of proper data management systems, they were unable to leverage the full power of their information. The information—ranging from borrower contact details to payment histories—was spread across an SQL Server database.

Without a robust system to manage, process, and analyze this data, the client struggled to unlock its true potential. The complexity and sheer scale of their data needed a solution that would streamline processes, enhance data quality, and provide the necessary tools for effective analysis and reporting.

Stuck in the Past: Manual Data Quality Checks

Relying on outdated manual processes for data quality checks and corrections, the client faced slow, error-prone operations that left them with unreliable data for key decisions.

Data in Disarray: Fragmented Across SQL Servers

Crucial borrower details, loan information, payment histories, and transaction records were scattered across multiple SQL Server databases, creating a fragmented data landscape that hindered effective analysis.

Data Avalanche: 170GB of Untapped Potential

With 500GB of data accumulated over 15 years, the client was drowning in a sea of unstructured information. The overwhelming volume made it nearly impossible to extract valuable insights in real-time.

Blind Spot: Lack of Data Governance

The absence of structured data governance meant inconsistent data quality, flawed reporting, and no clear accountability for data integrity, security, or transparency. There were no clear processes in place for managing data integrity, metadata, or security, which further compromised the potential of their data.

Legacy Infrastructure: Limited DWH & BI Capabilities

The existing Data Warehouse (DWH) and Business Intelligence (BI) setup were far from future-ready. With no real-time analytics or scalability, the infrastructure couldn't support the growing needs of the client.

The Road to Smarter Decisions: Rebuilding Data Foundations with Databricks at the Helm

With our extensive experience in solving complex data challenges, we knew exactly how to approach this problem. With a solid track record of delivering transformative solutions with Databricks on numerous projects, we understood that this powerful platform would be the ideal solution to transform the client's fragmented data ecosystem.

Drawing on our deep expertise in AI, data management, and Databricks' advanced features, we crafted a solution that not only addressed their immediate needs but also provided scalability for future growth. The results were remarkable—a streamlined system that not only helped them make smarter decisions but also gave them the solutions to tackle future challenges head-on.

▶ **Data Alchemy: Bringing It All Together**

Indium designed a hybrid Data Lake and Enterprise Data Warehouse (EDW) solution built on Azure, integrating Databricks as the backbone. This seamless platform unified structured, unstructured, and semi-structured data, making it easier for the client to manage and analyze their massive data landscape.

▶ **From Raw to Refined: Data Cleansing and Transformation**

Databricks' power tools, including Spark, worked magic on the client's raw, unstructured data. Data cleansing and transformation processes became smoother and faster, ensuring only the highest quality data fed into the system—empowering better, more reliable decision-making.

▶ **Pattern-Driven Data Ingestion: Smarter, Faster, and Scalable**

Databricks leveraged a metadata-driven framework for pattern-based data ingestion, using Parquet for efficient storage. This approach optimized the ingestion process, enabling real-time data flow that allowed the client to scale operations seamlessly as data volumes continued to grow.

▶ **Real-Time Reporting: Making Informed Decisions Instantly**

Dashboards and reports were automatically generated on a daily, weekly, and monthly basis, providing real-time insights. With Azure Databricks working its magic, the client could now visualize and analyze both historical and operational data to improve application processes and accelerate decision-making.

▶ **Empowering Users with Data-Driven Decisions**

With Databricks at the core of the solution, users of the client's loan servicing applications could now access critical data from multiple sources in a unified dashboard. The result? Data-driven decisions that fueled smarter processes and enhanced performance across the board.

The Pinnacle of Data Excellence: Results That Left the Status Quo Behind

When it comes to solving complex data challenges, we don't just think outside the box—we redefine the entire blueprint. By leveraging our years of expertise, we delivered a solution that turned their data woes into a powerhouse of opportunity. In any business, time is money, and with Indium's solution, the client managed to double their efficiency.

▶ **3X Boost in Credit Risk Precision:**

With our transformative solution, the client achieved a jaw-dropping 3X improvement in their credit risk analytics. No more guesswork—just crystal-clear insights that helped them make smarter, safer financial decisions at a rapid pace.

▶ **Efficiency Like Never Before: A 2X Surge:**

By automating manual processes and unifying data flows, we supercharged their operations by saying goodbye to inefficiencies. The result? A 2X increase in efficiency that slashed processing times and turned complex workflows into seamless, lightning-fast tasks.



About Indium

Indium is an AI-driven digital engineering company that helps enterprises build, scale, and innovate with cutting-edge technology. We specialize in custom solutions, ensuring every engagement is tailored to business needs with a relentless customer-first approach.

Our expertise spans Generative AI, Product Engineering, Intelligent Automation, Data & AI, Quality Engineering, and Gaming, delivering high-impact solutions that drive real business impact.

With 5,000+ associates globally, we partner with Fortune 500, Global 2000, and leading technology firms across Financial Services, Healthcare, Manufacturing, Retail, and Technology—driving impact in North America, India, the UK, Singapore, Australia, and Japan to keep businesses ahead in an AI-first world.

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