

How an Enterprise Data Hub Enabled a Medical Device Manufacturer to Achieve 90% Faster Data Provisioning.

INDUSTRY

Healthcare

CAPABILITY

Data Modernization

FUNCTION

Data Analytics

TECH STACK

Microsoft Azure,
Azure Data Lake
Store (ADLS), Azure
Databricks,
Snowflake

Client Overview

Our client is a prominent healthcare and medical device manufacturer renowned for their revolutionary auditory equipment. They operate across markets, and have adapted a tech-forward manufacturing and engineering approach to serve thousands of clinical practitioners and patients worldwide.

The Ask

The client wanted to establish an Enterprise Data Hub and a unified single source of truth through a robust Data and Analytics (DnA) platform. Their objective was to develop a system capable of capturing and processing structured, semi-structured, and unstructured data to enhance operational efficiency, minimize data latency, and support Near Real Time (NRT) data provisioning for downstream applications.

Challenges

Siloed data across independent Enterprise Data Warehouses.

Execution delays in daily reporting and ETL jobs due to legacy compute systems

Need for better infrastructure to ingest, parse, and process unstructured or semi-structured data profiles.

Room for improved standardizations to enhance metric reliability.

Our Solution: Data & Analytics Platform

Migrated Architecture to Azure Cloud

Moved legacy enterprise storage boundaries into a high-performance Microsoft Azure Infrastructure, establishing logical isolation using secured virtual networks and localized gateway subnets.

Integrated Live Replication and Processing Change-Data-Capture

Leveraged Attunity Replicate over secure VPN channels to scan on-prem systems (Oracle, SQL Server, AS 400), automatically syncing operational deviations into the staging environment.

Orchestrated Structured Multi-Zone Storage

Designed and deployed an Azure Data Lake Store layered into Staging, Raw, and Curated zones to properly isolate unstructured, semi-structured, and production-ready elements.

Constructed Dual Analytics & Compute Clusters

Separated operational processing demands by setting up dedicated Azure Databricks data engineering clusters alongside a high-concurrency Snowflake Analytics engine to clear data latency.

Transitioned to Direct-to-Cloud Ingestion (Phase II):

Optimized long-term processing limits by building direct Databricks JDBC integrations and native Snowflake connectors, routing production transactional paths straight to analytics tiers.

Built Automated Data Governance Framework

Deployed a centralized Tableau management dashboard tracking 40 operational plant locations and over 1,200 database tables, triggering smart alerts for execution variances.

Impact Delivered

25X faster Query Engine Execution, boosting reporting performance from hours to minutes.

90% performance gain in Data Provisioning, accelerating multi-format asset provisioning to downstream business groups looking to fulfill highly strict SLAs.

75% deflection in System ETL Congestion, optimizing pipeline patterns across the ecosystem.

Near-Real-Time data availability, enabling end-to-end telemetry ingestion frameworks to safely translate immediate field actions into direct dashboard visibility.

Infrastructure Automation via ARM Templates, enabling automation for deployment & data-center replications (DR).

Accelerate Your Enterprise Data Hub Performance

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About Us

Tiger Analytics is a global leader in AI and analytics, helping Fortune 1000 companies solve their toughest challenges. We offer full-stack AI and analytics services & solutions to help businesses achieve real outcomes and value at scale. We are on a mission to push the boundaries of what AI and analytics can do to help enterprises navigate uncertainty and move forward decisively. Our purpose is to provide certainty to shape a better tomorrow.

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