

A leading construction firm modernized its data estate with Microsoft Fabric—**achieving 40% cost savings** and unlocking scalable, AI-ready insights.



Background

The company provides construction management, general contracting, design-build, and integrated project delivery services on projects of all sizes for a diverse customer base.

Business Challenge

A leading construction company initiated the modernization of its data infrastructure. To address challenges in scaling data and analytics, they wanted to consolidate processes using Microsoft Fabric, focusing on enhanced data governance and efficiency. As a trusted partner, WinWire supported them in upgrading their data architecture with advanced technology to drive business growth.

The client faced significant challenges with legacy and fragmented data systems:

- **No Centralized Analytics:** Needed a scalable platform for growing demands.
- **Inefficient Data Handling:** Lacked standard data ingestion and transformation methods from various sources.
- **Redundant Reports:** Multiple Power BI workspaces led to duplicate reports and inconsistent calculations.
- **Need for a Modern Data Platform:** Required a solution to support AI-ML use cases and workloads.

These inefficiencies resulted in high operational costs, missed opportunities for optimization, and difficulties in decision-making.

Solution

WinWire delivered a comprehensive solution using Microsoft Fabric, a unified analytics platform, addressing the client's pain points while driving transformation:

- **Standardized ETL:** Implemented a standardized approach for extracting, transforming, and loading data from various sources, which allowed the client to eliminate data silos.

- **Medallion Architecture:** Designed a modern data platform using the medallion architecture, allowing the client to manage data at various layers—bronze, silver, and gold—for improved data quality and scalability.
- **Data Science and ML Workloads:** Enabled the platform to support Data Science and Machine Learning workloads, allowing the client to build and operationalize AI models effectively.
- **Metadata-Driven Pipelines:** Introduced metadata-driven pipelines to facilitate large-scale data scenarios with ease.
- **Leveraging Existing Resources:** The solution effectively used the client's existing Power BI Premium P2 SKU, optimizing report refresh cycles and workloads without incurring additional storage or compute charges.
- **Unified Experience Benefits:** Provided a unified data experience, improving collaboration across teams, reducing operational complexity, and accelerating decision-making processes.

Key technologies used included:

- Microsoft Fabric Components: OneLake, Data Engineering Notebooks, Apache Spark Compute, and Data Factory Pipelines.
- On-Prem Gateway: Enabled connection with multiple data sources like Oracle SQL Server and Microsoft SharePoint.

Business Value

- **Cost Savings:** Optimized resource usage allows the client to maximize the investment in their Power BI Premium P2 SKU, achieving **cost savings of 40%** without additional costs for computing or storage.
- **Enhanced Analytics Capabilities:** Unified analytics on Microsoft Fabric empowered the client with real-time insights, improving decision-making and driving operational efficiency.



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