Microsoft Fabric Modernize Your

Data Pipeline Proof of Concept



HIGHLIGHTS

- *AI-Enhanced Development:* Accelerate pipeline creation and transformation with builtin Copilot and intelligent automation tools.
- **SaaS Simplicity:** Eliminates infrastructure management with a fully managed, scalable platform that reduces operational overhead.
- Unified Data Experience: Centralize engineering, integration, and analytics in one workspace with OneLake and Lakehouse architecture.

ABOUT DAYMARK

Daymark Solutions excels in creating sophisticated technology solutions, specializing in addressing complex business challenges through expertly designed systems. Their highly skilled architects are adept at crafting well-architected solutions that seamlessly integrate cloud and data center technologies. By combining these technologies, they create robust, scalable and secure systems tailored to meet their clients' unique needs. Modernizing a data pipeline with Microsoft Fabric is the fastest way to unlock AI-driven insights, reduce complexity, and future-proof your data platform

OVERVIEW

This Proof of Concept (PoC) aims to demonstrate the value of Modernizing an existing data pipeline by migrating it to Microsoft Fabric. By selecting a single pipeline–regardless of its current Platform (e.g., Azure Data Factory, SSIS, Databricks, or on-prem SQL Server)–we will rearchitect the workflow using Microsoft Fabric's unified SaaS experience. The goal is to highlight how Fabric simplifies pipeline development and operations, while showcasing its powerful AI-enhanced capabilities and low-maintenance architecture.

Microsoft Fabric delivers a fully managed, end-to-end data platform, eliminating the need for infrastructure provisioning and upkeep. Its integrated experiences—spanning data engineering, integration, science, and analytics—are designed to enhance productivity and streamline collaboration across teams. Through the PoC, we'll demonstrate the ease of building and managing pipelines using Fabric's intuitive interface, while also leveraging AI-powered features like Copilot for tasks such as data transformation, mapping, and optimization. The use of OneLake and Lakehouse architecture will further emphasize the benefits of centralizing data without duplication and ensuring a single source of truth.

The success of this PoC will be measured by the functional equivalence of the new pipeline, improved time to deployment, reduced operational complexity, and enhanced user experience. We'll also quantify the impact of AI integration and governance improvements enabled by Microsoft Purview and built-in security controls. Deliverables will include the partially migrated pipeline, a comparison report outlining benefits over the legacy system, and a walk-through session or demo for key stakeholders.

Ultimately, this PoC will serve as a foundation for a broader modernization strategy, illustrating the tangible benefits of adopting Microsoft Fabric for enterprise data workflows. By bridging existing processes into a modern, intelligent data platform, we enable scalable, secure, and future-ready data solutions with significantly reduced maintenance overhead.

LEARNING OBJECTIVES

At the end of the Proof of Concept, participants will:

- Experience how AI-powered tools like Copilot accelerate development, transformation, and orchestration of data workflows.
- Gain insights into integrating diverse data sources and simplifying operations through centralized Lakehouse and OneLake architecture.
- Evaluate improvements in performance, scalability, and reliability compared to traditional pipeline solutions.
- Leave with a clear roadmap for expanding Microsoft Fabric adoption across additional data pipelines and workloads.

AGENDA

Workstream 1: Plan & Architect Modernized Data Pipline

Objective: Define the modernization approach and success criteria by assessing the current pipeline and designing a Fabric-based replacement.

Activities:

- Gain access to the existing data pipeline or obtain comprehensive documentation detailing its structure, logic, and data sources.
- Confirm access to Microsoft Fabric and validate required permissions for pipeline development.
- Define measurable success criteria for the Proof of Concept (e.g., execution performance, maintenance reduction, Al usage).
- Outline a high-level design and migration plan for the modernized pipeline within Microsoft Fabric.

Workstream 2: Build and Enable Modernized Data Pipline

Objective: Execute the pipeline modernization in Microsoft Fabric, validate against success criteria, and present outcomes to stakeholders.

Activities:

- Rebuild the selected legacy pipeline using Microsoft Fabric's Data Factory and Lakehouse features.
- Test the modernized pipeline for data accuracy, performance, and consistency with legacy outcomes.
- Evaluate improvements in workflow efficiency, AI integration, and operational simplicity.
- Create a comparison report summarizing key differences and value gained from modernization.
- Deliver a walk through or live demo of the Fabric pipeline to highlight enhancements and usability.
- Review success criteria outcomes and provide recommendations for next steps or full-scale roll-out.

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