



CUSTOMER CASE STUDY

Modernizing Data Infrastructure for Operational Independence

BKOAI modernized data operations to reduce reliance on legacy systems, replacing critical workflows with scalable Microsoft Fabric and Databricks solutions integrated with Power BI and Power Apps

Solution: Microsoft Fabric and Databricks

Industry: Downstream

Use Case Focus: Data Infrastructure Migration

GOALS

- Transition away from the parent organization's systems.
- Establish scalable replacements for legacy workflows.
- Implement high-frequency alerts for tank monitoring.
- Accelerate data delivery to downstream applications.

SOLUTIONS

- Migrated core data inputs to PI tags for use in Seeq.
- Rebuilt reporting processes in Microsoft Fabric.
- Automated scheduled notebook runs for forecasting workflows.
- Used multithreaded API calls to improve data-processing speed.

CHALLENGES

- Operations depended heavily on deprecated data sources and parent-organization systems.
- An outdated codebase created operational and business risks.
- Key tank metrics required continuous monitoring.
- Slow data processing delayed information delivery to downstream applications.

RESULTS

- Eliminated dependencies on legacy parent-organization systems.
- Reduced application-workflow latency from 120 seconds to 10 seconds.
- Automated essential monitoring and alerts.
- Reduced processing time for key reports by 50%.

EXECUTIVE SUMMARY

BKOAI modernized critical data operations to reduce reliance on legacy parent-organization systems. Core data inputs were migrated to PI tags for use in Seeq, reporting processes were rebuilt in Microsoft Fabric, scheduled notebook runs were automated for forecasting workflows, and multithreaded API calls improved data-processing speed. The modernization reduced application-workflow latency from 120 seconds to 10 seconds, automated essential monitoring and alerts, and reduced processing time for key reports by 50%.

Replacing Legacy Dependencies

Operations depended heavily on deprecated data sources and parent-organization systems, while an outdated codebase created operational and business risks. At the same time, key tank metrics required continuous monitoring and slow data processing delayed information delivery to downstream applications.

Modernizing the Data Workflow

BKOAI migrated core data inputs to PI tags for use in Seeq and rebuilt reporting processes in Microsoft Fabric. Scheduled notebook runs were automated for forecasting workflows, and multithreaded API calls were used to improve data-processing speed. The new architecture also supports integration with Power BI and Power Apps.

Operational Independence and Faster Processing

The updated data infrastructure eliminated dependencies on legacy parent-organization systems. Application-workflow latency dropped from 120 seconds to 10 seconds, essential monitoring and alerts were automated, and processing time for key reports was reduced by 50%.