

SECTION 8:

Measuring success and maximizing value after migration

Migrating to Azure Databricks is just the start. To ensure sustained success, organizations should measure key outcomes, optimize workflows, and leverage Azure Databricks' full potential. Establishing key performance indicators (KPIs), enhancing operations, and integrating Azure services all contribute to maximizing value post-migration.

Establishing KPIs to measure migration success

Setting clear KPIs allows organizations to quantify the impact of migration and ensure alignment with business goals. Key areas include:

- **Operational efficiency** – Track metrics like data processing speeds and system uptime to measure improvements in efficiency and data flow.
- **Cost reductions** – Compare pre- and post-migration expenses to assess cost savings, such as reduced hardware, maintenance, and resource costs.
- **Data accessibility and insights** – Monitor query performance and user access to evaluate improvements in data availability and speed of insights.



CASE STUDY 4 (MANUFACTURING):

Parker Hannifin – Improving data processing in manufacturing workflows

Parker Hannifin, an industrial manufacturing leader in the U.S., adopted Azure Databricks to enhance data processing and support innovation across its operations. The Azure platform enabled Parker Hannifin to streamline its data engineering tasks, reduce manual intervention, and automate production insights, improving operational efficiency and enabling data-driven decisions in real time. Azure Databricks helped Parker Hannifin stay competitive in a demanding manufacturing sector.

Optimizing workflows and operations on Azure Databricks

After migration, refining workflows enhances efficiency and cost-effectiveness, unlocking more of Azure Databricks' capabilities.

- **Leverage Delta Lake** – Implement Delta Lake for ACID transactions and data versioning, improving reliability for applications that need consistent data.
- **Enable autoscaling** – Use autoscaling to adjust resources based on demand, reducing costs while ensuring performance remains stable.
- **Optimize data layout** – Efficient data layout with liquid clustering and predictive optimization speed up queries for large datasets, enhancing user experience and accessibility.

Driving innovation with AI and advanced analytics

Azure Databricks provides a solid foundation for advanced analytics, enabling organizations to expand beyond standard reporting into predictive insights and AI-driven processes.

- **Expand ML initiatives** – Use MLflow for tracking and managing models, fostering consistent experimentation and streamlined model versioning.
- **Automate with AutoML** – AutoML automates model building and validation, making it easier to scale analytics without extensive data science resources.
- **Implement real-time analytics** – Structured streaming supports live data analysis, allowing for use cases such as customer engagement and operational monitoring.

CASE STUDY 5 (FINANCIAL SERVICES):

Deutsche Börse – Enhanced analytics in financial operations

Deutsche Börse, a German stock exchange, enhanced its financial analytics by utilizing Azure Databricks to process large-scale data in real time. This transition enabled the exchange to optimize trading operations, reduce latency, and provide investors with timely, data-driven insights. Azure Databricks' scalable infrastructure supported Deutsche Börse's need for fast, reliable analytics, enhancing operational efficiency and customer satisfaction.



Maximizing ROI with Azure integrations

Extend the value of Azure Databricks by integrating it with other Azure services for a holistic data strategy.

- **Azure Machine Learning** – Combine with Azure Machine Learning for seamless model deployment and monitoring, supporting the full ML lifecycle.
- **Power BI** – Unlock powerful analytics and visualization capabilities with direct publishing of aggregated data to Power BI, allowing faster access to insights and enhanced data-driven decision-making. This integration supports real-time data exploration, making it possible to build dynamic, interactive dashboards that drive business intelligence across the organization.
- **Azure Fabric** – Seamlessly integrate with Azure Fabric to enhance collaboration across teams and simplify the management of complex data estates while leveraging the full Azure ecosystem for scalable, secure, and efficient data operations.

Continuous improvement for long-term value

Adopting continuous improvement practices ensures Azure Databricks continues to meet evolving business needs.

REFINE GOVERNANCE POLICIES	MONITOR RESOURCE USAGE	PROMOTE KNOWLEDGE SHARING
Regularly update Unity Catalog’s governance policies to keep data secure and compliant as usage grows.	Use Azure’s cost management tools to track resource consumption, optimizing allocations to control costs.	Encourage cross-team collaboration and best practice sharing to stay aligned on updates and maximize Azure Databricks’ potential.

SECTION 9:

Future-proofing your data strategy with Azure Databricks

To remain competitive, organizations need a data strategy that adapts to future demands. Azure Databricks provides a flexible and scalable platform that supports current needs while adapting to the evolving landscape of data analytics, AI, and compliance. With capabilities for seamless integration, advanced analytics, and robust data governance, Azure Databricks helps organizations build a future-ready data foundation.

Building a scalable foundation for long-term growth

Azure Databricks offers the scalability needed to meet expanding data requirements. With dynamic compute and storage scaling, organizations can respond to changes in data processing demands without costly infrastructure overhauls.

- **Elastic compute and storage scaling** – Azure Databricks allows compute and storage resources to scale independently based on demand, ensuring efficient use of resources. This elasticity supports workload spikes and enables organizations to scale seamlessly as data needs grow.
- **Optimized for variable workloads** – Azure Databricks handles both real-time streaming and batch processing, making it ideal for managing diverse data workflows. This flexibility enables organizations to balance day-to-day data processing with large-scale analytics, supporting varied business needs.

Adapting to emerging technologies and analytics trends

Azure Databricks provides flexibility and forward compatibility through its deep integration with open-source tools and regular feature updates, allowing organizations to incorporate new analytics technologies as they emerge.

- **Open-source tool compatibility** – Built on a foundation of open-source standards like Apache Spark, Delta Lake, and MLflow, Azure Databricks is compatible with widely used data science libraries such as TensorFlow, PyTorch, and Apache Iceberg. This robust, open-source foundation allows organizations to integrate evolving analytics frameworks, ensuring a flexible, interoperable environment without disrupting existing workflows.
- **Continuous platform innovations** – As a fully managed cloud service, Azure Databricks benefits from regular updates that bring the latest in data processing and analytics advancements. Key updates include vector search for generative AI applications, GPU model serving for high-performance model deployment, and advanced tools for model evaluation and fine-tuning. These updates ensure that businesses have access to cutting-edge capabilities, enabling them to stay competitive with minimal manual configuration.

Driving innovation with AI and machine learning

Azure Databricks is optimized for AI and machine learning, providing a foundation that supports predictive analytics, automation, and intelligent decision-making.

MACHINE LEARNING LIFECYCLE MANAGEMENT	<p>Azure Databricks offers end-to-end support for the ML lifecycle through MLflow, enabling efficient tracking, versioning, and deployment of models. This structured ML workflow supports growth and adapts to evolving data science practices.</p>
AUTOMATED MACHINE LEARNING (AUTOML)	<p>AutoML on Azure Databricks accelerates model development by automatically testing and selecting optimal models. This tool enables organizations to quickly scale machine learning capabilities, helping teams keep pace with expanding AI demands.</p>

Reinforcing data governance for a secure future

Azure Databricks includes Unity Catalog, a comprehensive governance solution that scales with data environments to ensure long-term data security and compliance.

- **Adaptable governance with Unity Catalog** – Unity Catalog provides a centralized governance framework with fine-grained access controls and data lineage tracking. This system supports growing data volumes and changing compliance needs, allowing organizations to scale governance practices seamlessly.
- **Proactive compliance and audit readiness** – Unity Catalog's governance features simplify compliance with data privacy regulations, such as GDPR and CCPA. Data lineage tracking and role-based access control (RBAC) ensure regulatory standards are met, helping organizations stay prepared for future audits.

Building security with Azure integrations

By integrating with Azure's enterprise security features, Azure Databricks helps organizations maintain a secure environment as they scale.

- **Identity and access management with AAD** – Unity Catalog integrates with AAD to centralize user authentication, ensuring a secure, unified login experience across Azure services.
- **Encryption for data protection** – Data encryption in Azure Databricks safeguards information both in transit and at rest, supporting data integrity and security across the platform.
- **Audit logs and monitoring** – Azure's built-in audit and monitoring tools allow organizations to track access events and data modifications, providing security oversight that grows with data usage.

SECTION 10:

Driving growth with Azure Databricks

Azure Databricks delivers a powerful and flexible data platform that helps organizations drive immediate growth. By migrating from legacy systems, businesses can achieve faster insights, reduce infrastructure costs, and focus on data-driven initiatives that enhance customer experience and operational efficiency. Azure Databricks empowers data teams to work in a unified environment, accelerating innovation and supporting strategic objectives for lasting growth.

- **Accelerated decision-making** – Azure Databricks supports real-time analytics, enabling organizations to process data as it is generated and respond swiftly to new information. This capability is vital for data-driven decisions that boost operational efficiency and responsiveness, especially in fast-paced industries like finance and retail.
- **Cost savings and operational efficiency** – Migrating to Azure Databricks reduces the need for costly on-premises maintenance, eliminates hardware expenses, and enables optimized resource usage through autoscaling. The platform's managed environment allows organizations to allocate resources according to demand, resulting in significant operational savings.
- **Unified data and AI workflows** – By consolidating data engineering, analytics, and machine learning on a single platform, Azure Databricks minimizes the need for data transfers across multiple systems, ensuring faster insights and simplifying the data-to-insights journey. Teams can work collaboratively on data and AI workflows, accelerating innovation and driving quicker results that support growth.
- **Enhanced customer experience through data-driven insights** – Azure Databricks enables advanced analytics and personalized recommendations, helping organizations deliver superior customer experiences. From real-time fraud detection to predictive maintenance and targeted marketing, the platform supports applications that directly contribute to customer satisfaction and business expansion.
- **Growth-driven AI capabilities** – With support for both classical and generative AI, Azure Databricks offers tools to develop, deploy, and monitor AI models at scale. Features like the feature store, model monitoring, and integration with Azure Machine Learning enable organizations to build robust AI-driven processes that adapt as customer needs evolve, further driving growth.

Building a resilient, future-ready data environment

Azure Databricks offers a foundation that allows organizations to stay current with advancements in data and analytics. By leveraging Azure Databricks' continuous updates and seamless integrations with other Azure services, businesses can constantly adapt to new technologies and industry trends.

With Azure Databricks, companies are prepared to scale their data operations, handle increasing data volumes, and adopt emerging analytics tools — all while ensuring that data remains secure and governed.

Taking the next step

For organizations ready to modernize their data environment, Azure Databricks offers a complimentary assessment through the Analytics Modernization Accelerator (AMA) program. This initiative provides expert guidance and resources to facilitate a seamless transition to Azure Databricks, helping organizations quickly realize the benefits of a cloud-native data platform.

By leveraging this program, businesses can gain a competitive edge and set the stage for data-driven innovation. With a clear migration plan, well-defined KPIs, and a culture of continuous improvement, organizations can maximize their investment in Azure Databricks and unlock the full potential of their data assets. The platform empowers data teams to focus on what matters most — driving insights, improving customer experiences, and achieving strategic objectives.

Azure Databricks transforms how organizations manage and leverage data, enabling them to respond to changing demands and embrace new opportunities. By migrating to a flexible, scalable platform, companies can make data a core part of their growth strategy and achieve long-term resilience in an increasingly data-centric world.

To learn more about the AMA Program and initiate your free assessment, contact your Databricks or Microsoft Sales Representative.

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