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Transforming
Nestlé USA's (NUSA)
data platform to
unlock new analytics
and GenAI capabilities

Nestlé USA, a division of the world's largest food and beverage company, Nestlé S.A., has embarked on a transformative journey to elevate its data platform capabilities. Deloitte, Databricks, and Nestlé have collaborated on a data platform modernization program to address gaps associated with Nestlé's existing Azure-based data platform.

This effort introduces new possibilities and capabilities, ranging from the development of advanced machine learning models to adopting Lakehouse Federation, all while adhering to confidentiality protocols. With help from Deloitte and Databricks, Nestlé USA is able to meet its advanced enterprise analytics and AI needs with the Databricks Data Intelligence Platform.

Historically, Nestlé USA has relied on Azure Databricks as the backbone for its data engineering and data science workloads. However, as Nestlé USA evolved, it faced challenges in unified governance, cross-platform lineage, and data security. These challenges underscored the necessity for a robust virtualization and governance layer capable of handling multi-cloud sources, reducing data duplication, and expediting end-to-end use case delivery.

The Solution: Databricks Data Intelligence Platform with Unity Catalog, Lakehouse Federation and Vector Search

Nestlé USA (NUSA) worked with Deloitte and Databricks to modernize its data platform. Deloitte offered strategic guidance and technical support throughout NUSA's implementation of the Databricks Data Intelligence Platform, featuring Unity Catalog, Lakehouse Federation, and Vector Search.

Deloitte first conducted a thorough assessment of NUSA's data lakes and assets, identifying those suitable for cataloging. Next, they assembled a cross-organizational team with deep technical experience and understanding of NUSA's data protocols, ensuring comprehensive support for the Unity Catalog (UC) deployment. Deloitte worked with subject matter experts from Nestlé and Databricks to resolve technical challenges and establish best practices for UC design.

To streamline the creation of catalogs, schemas, and tables, Deloitte developed the "Unity Bridge" accelerator. Once the UC publishing design was finalized, the accelerator efficiently indexed necessary data assets, facilitating catalog creation and significantly boosting efficiency.

With Unity Catalog operational, Nestlé USA enabled Databricks Lakehouse Federation to enhance data governance across workspaces and achieve automatic lineage creation. The serverless SQL endpoint allowed for rapid analytical consumption, significantly benefiting report building. Deloitte also streamlined management and automation of NUSA's ML lifecycle through the Databricks MLOps stack. The enriched data lake, now integrated with UC and Mosaic AI Vector Search, empowers NUSA to innovate with GenAI use cases.

The wins

Centralized Governance
Successfully established centralized catalogs with over 1,000 tables each, accessible across 30+ Unity Catalog-enabled workspaces.

Advanced Virtualization
Implemented a virtualization layer capable of handling multi-cloud sources.

AI/ML Innovation
Integrated Vector Search uses embeddings that can personalize RAG models with relevant data.

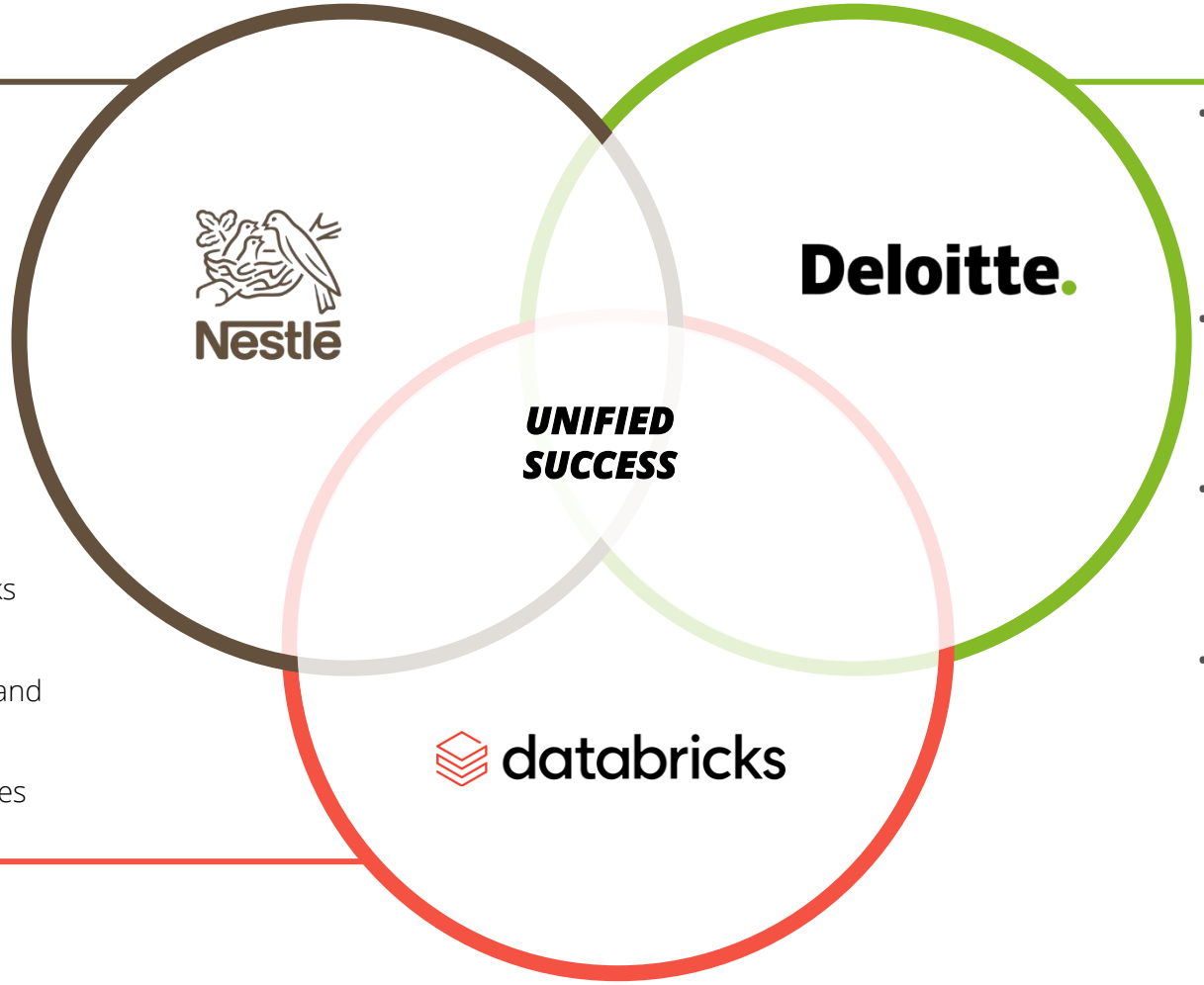
Customized Access
Designed a persona-based access model, provisioning access for 35 user personas, including 200+ data scientists, 150+ report builders, and 200+ data engineers.

Efficiency Gains
The "Unity Bridge" accelerator delivered a 40% efficiency gain in the build phase of Unity Catalog, crawling 2500+ data paths within 4 hours and creating 1000+ tables in 2 hours.

Nestlé + Databricks + Deloitte: Successful Collaboration that Sparks Innovation

- Identified specific use cases and desired outcomes for building a robust data platform for GenAI use cases
- Helped accelerate and unblock end-to-end platform implementation

- Provided technical experience on the overall implementation of the Databricks Data Intelligence Platform
- Proactively addressed technical issues and requests for product enhancements
- Provided standards and leading practices from successful UC implementations



- Assembled a team with deep technical experience and understanding of Nestlé data protocols and requirements to support the Databricks Unity Catalog implementation
- Built a "Unity Bridge" accelerator to automate the creation of catalogs and schemas for UC migration and greenfield implementation
- Used accelerator to crawl Nestlé's existing data lake, identify relevant objects and onboard objects to catalog across all workspaces
- Collaborated with Nestlé and Databricks to resolve technical issues and implement standards and leading practices while designing catalogs and schemas

NESTLE + DELOITTE + DATABRICKS

Enabled Unity Catalog for end-to-end governance, data lineage, and federation of data and AI

Integrated serverless SQL end points for analytical consumption and AI/ML deployments

Streamlined management and automation of ML lifecycle through Databricks MLOps stack

Adopted Vector Search for GenAI use cases with RAG implementations

Value Delivered

80%

Decrease in costs associated with sustain support activities

Databricks Unity Catalog implementation not only delivered a marked improvement in sustain and support effectiveness but also achieved significant operational cost savings

10K+

Hours can be saved annually through streamlined workflows and improved data accessibility

By significantly enhancing data lake usability and optimizing the end-to-end delivery of data science use cases, Nestlé has achieved remarkable enhancements in productivity

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Single centralized, and searchable data repository, revolutionizing data discovery and accessibility

This unified platform integrates 13 distinct data products, empowering data Scientist and advance report builders to find and utilize the data they need, driving efficiency and innovation across the organization

20%

Productivity increase in sales function driving sales growth

Utilizing Databricks platform tools, including Vector DB and Databricks Serverless, to develop a Gen AI platform that will enhance Nestlé's sales process efficiency, thereby driving sales growth

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"NUSA's collaboration with Deloitte and Databricks marks a significant milestone in our data platform modernization journey, reinforcing our leadership in leveraging cutting-edge technologies for business intelligence and analytics"

Rosana Rodrigues, Nestlé USA, Head of Data and Analytics

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