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Large Multinational Food Processing Company Standardizes Global Business Processes to Lower Costs and Increase Revenue

This global leader in the food processing industry transforms crops into ingredients for food, industrial products, renewable energy, and animal feed. Their extensive breadth and depth in the food supply chain helps meet the needs of people in over 200 countries.

Acquisitions Create Complexity and Data Integration Challenges

In recent years, the company expanded from producing oils and flours from agricultural sources to making more complex products such as plant proteins and enzymes. This expansion included acquiring several companies, resulting in fragmented, disjointed business processes. This led to a global, enterprise-scale, multi-year strategic initiative to standardize business processes.

As part of this initiative, the company's data management team integrated data via a network of extract, transform, and load (ETL) processes, centralizing the data in a data warehouse and a data lake. This integration took a prohibitive amount of time and placed a heavy burden on the company. As a director of Data Architecture put it, "We were constantly moving data around, all hours of the day and night." The company also needed better controls on who could access data in a way that aligned with the company's existing technology stack and did not lead to vendor lock-in.

Getting Out of the Data Deluge

The company decided to change its approach to reduce the time and cost of integrating and centralizing data from the acquired companies. The company deployed the Denodo Platform, which uses a data virtualization layer to access data from dozens of sources, including legacy data warehouses, SAP S4 Core ERP systems, a Microsoft Azure data lake, an Azure SQL-managed instance, and external APIs. This layer provided the company with a "virtual front door," enabling real-time data access without requiring the data to be physically moved. This was the first win for the data management team.

The company also leveraged the Denodo Platform's compliance and reporting capabilities to enable selective access to the underlying data via object-level security. Initially, the company created three personas – consumers, analysts, and producers of business intelligence – each with different access levels.

Generating Wins for the Business

The Denodo Platform's data management capabilities generated several big wins for the company. With a data-virtualization-enabled semantic layer, users no longer need to wade through data definitions without context. Business users are confident they can access high-quality data using standard analytics and reporting tools, such as Microsoft Power BI, Azure ML, Azure Synapse Workspace, and others. The Denodo Platform's reporting and compliance capabilities enabled governance and security with selective access, thus helping to reduce risk.

The biggest win was the development of universal semantic models that can be modified or updated without affecting the underlying data. These models helped the company's business groups to build key business processes for every geography where the company operates. This standardization helped the company reduce costs and deliver faster responses to customers, which in turn helped generate more revenue.
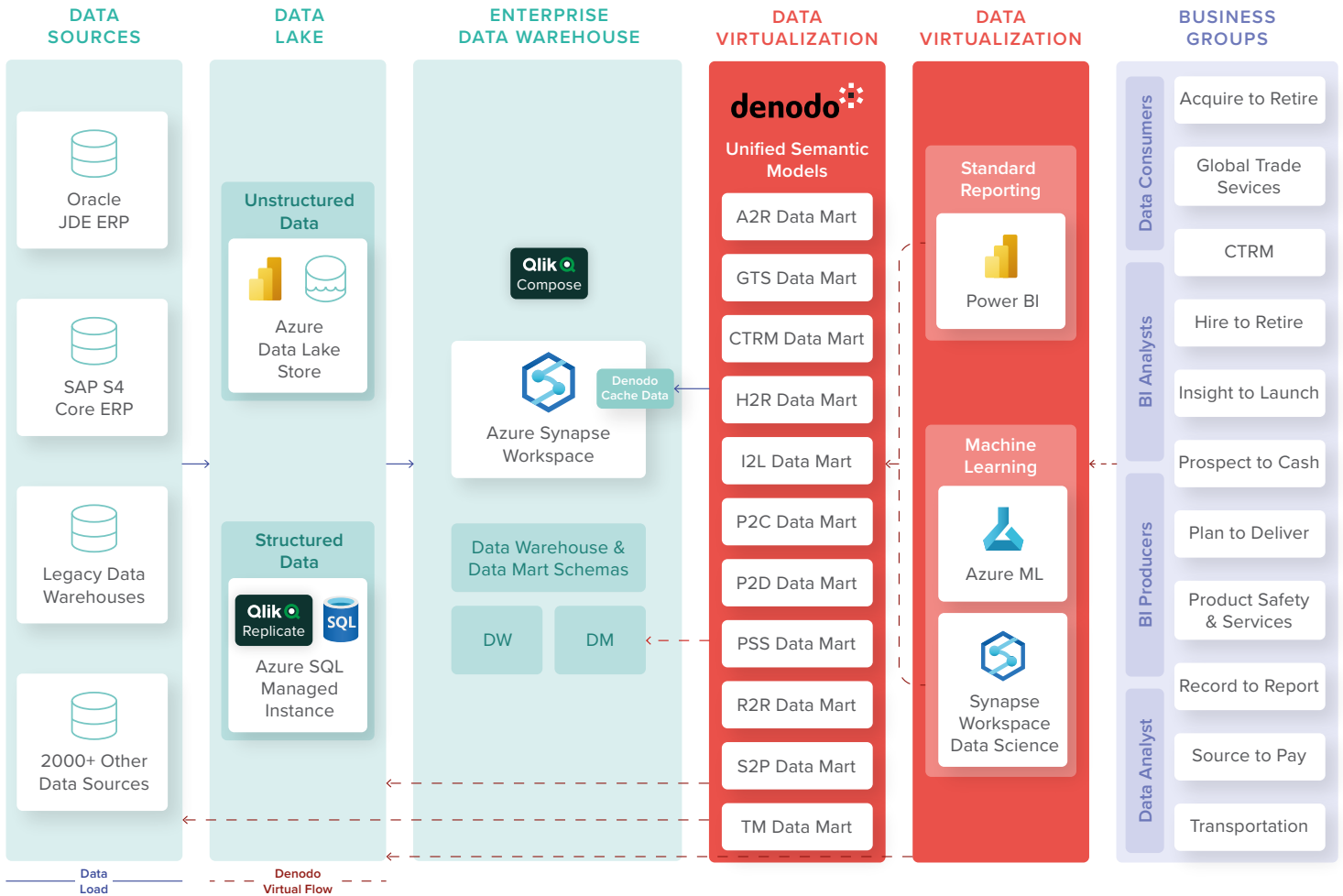
Enterprise Data Platform

DATA SOURCES	DATA LAKE	ENTERPRISE DATA WAREHOUSE	DATA VIRTUALIZATION	DATA VIRTUALIZATION	BUSINESS GROUPS

DATA SOURCES
- Oracle JDE ERP
- SAP S4 Core ERP
- Legacy Data Warehouses
- 2000+ Other Data Sources

DATA LAKE

Unstructured Data
- Azure Data Lake Store

Structured Data
- Qlik Replicate
- SQL
- Azure SQL Managed Instance

ENTERPRISE DATA WAREHOUSE

Qlik Compose

Azure Synapse Workspace — Denodo Cache Data

Data Warehouse & Data Mart Schemas

DW | DM

DATA VIRTUALIZATION

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Unified Semantic Models
- A2R Data Mart
- GTS Data Mart
- CTRM Data Mart
- H2R Data Mart
- I2L Data Mart
- P2C Data Mart
- P2D Data Mart
- PSS Data Mart
- R2R Data Mart
- S2P Data Mart
- TM Data Mart

DATA VIRTUALIZATION

Standard Reporting
- Power BI

Machine Learning
- Azure ML
- Synapse Workspace Data Science

BUSINESS GROUPS

Data Consumers
- Acquire to Retire
- Global Trade Sevices
- CTRM

BI Analysts
- Hire to Retire
- Insight to Launch
- Prospect to Cash

BI Producers
- Plan to Deliver
- Product Safety & Services
- Record to Report

Data Analyst
- Source to Pay
- Transportation

Data Load

Denodo Virtual Flow

Figure 1: The Company's New Data Architecture"

Next Steps

The company's data management team is actively identifying additional business processes that can benefit from global standardization, demonstrating the company's commitment to continuous improvement. This standardization will further aid the company in managing new acquisitions and enhancing customer satisfaction. The company also anticipates that the standardized process will improve the employee experience as they collaborate with peers in other geographies.

Concurrently, the team is evaluating a wide range of new capabilities and data strategies, including moving data to the cloud, managing egress costs, and maintaining some data on-premises. The Denodo platform's new capabilities and flexible approach to logical data management are critical success factors in the company's ongoing innovation in areas, such as sustainability and health and wellness ingredients.

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Denodo is a leader in data management. The award-winning Denodo Platform is the leading data integration, management, and delivery platform using a logical approach to enable self-service BI, data science, hybrid/multi-cloud data integration, and enterprise data services. Realizing more than 400% ROI and millions of dollars in benefits, Denodo's customers across large enterprises and mid-market companies in 30+ industries have received payback in less than 6 months.