

CASE STUDY

Albertsons Leverages the Denodo & Protegrity Platforms for Flexible, Intelligent Data Security

Every day, Albertsons serves customers in-store and online across most of North America through a number of well-known, trusted brands. The company was in the middle of a digital transformation program and wanted to rebrand itself to a tech-enabled retail chain. As part of this program, Albertsons was looking for ways to launch customer marketing campaigns securely.

Business Need

Recently, Albertsons engaged in a program to modernize its data infrastructure and move its critical data assets to Microsoft Azure Cloud. Concerned about potential breaches, Albertsons wanted an additional cyber security platform to complement Azure’s existing security features. At the same time, Albertsons wanted to continue to run personalized online marketing campaigns and launch advanced analytics program on its customer data. The company’s goal was to find a secure way to mask the customer data and ensure that only authorized individuals could run campaigns to access the data.

The Solution

To securely migrate its critical data sets to Azure, Albertsons needed a solution that combined Protegrity data protection with virtualization through Denodo, leveraging network security protocols such as Access Control List (ACL) and Encryption at Rest. Since this data contained customer personally identifying information/protected health information/Payment Card Industry (PII/PHI/PCI) information, Albertsons went a step further and secured this data using a patented tokenization approach from Protegrity, which enabled the company to move more aggressively to the cloud. Protegrity enabled Albertsons to tokenize its data sets as far upstream as possible and detokenize as far downstream as possible, while also allowing Albertsons to utilize all data, including sensitive data for AI/ML models. Customer data was stored in the Snowflake cloud data warehouse.

Albertsons used the Denodo Platform to control and secure access to millions of rows of customers’ personal information by integrating Protegrity’s Java Application Protector into Denodo and enabling role-based access control to restricted data elements. An on-premises Denodo Platform instance provided access to detokenized PII/PHI data only to a specific group of authorized users through a virtualized interface.

For advanced use cases, Albertsons introduced work-in-progress (WIP) tables in Snowflake, in which analysts iteratively built result sets to materialize a final result set in a specific WIP table, or set of tables, using tokenized data. Then authorized marketing teams leveraged the Denodo Platform to access WIP data from the restricted data (PII/PHI/PCI) elements, resolved to clear text under a role-based, access-controlled mechanism, with the flexibility of Visual Query Language (VQL).

Industry

Retail

Profile

Albertsons Companies, Inc. is an American grocery company founded and headquartered in Boise, Idaho. The company operates more than 2,200 retail food and drug stores and is the second-largest supermarket chain in North America. The company operates stores across 34 states and the District of Columbia under 20 well-known banners including Albertsons, Safeway, Vons, Jewel-Osco, and Shaw’s.



Protecting our Customer’s PII data is essential. Protegrity tokenization accelerates our secure transformation while enabling advanced analytics with protected data.

— Steve Etchelecu,
Solution Architect, Albertsons



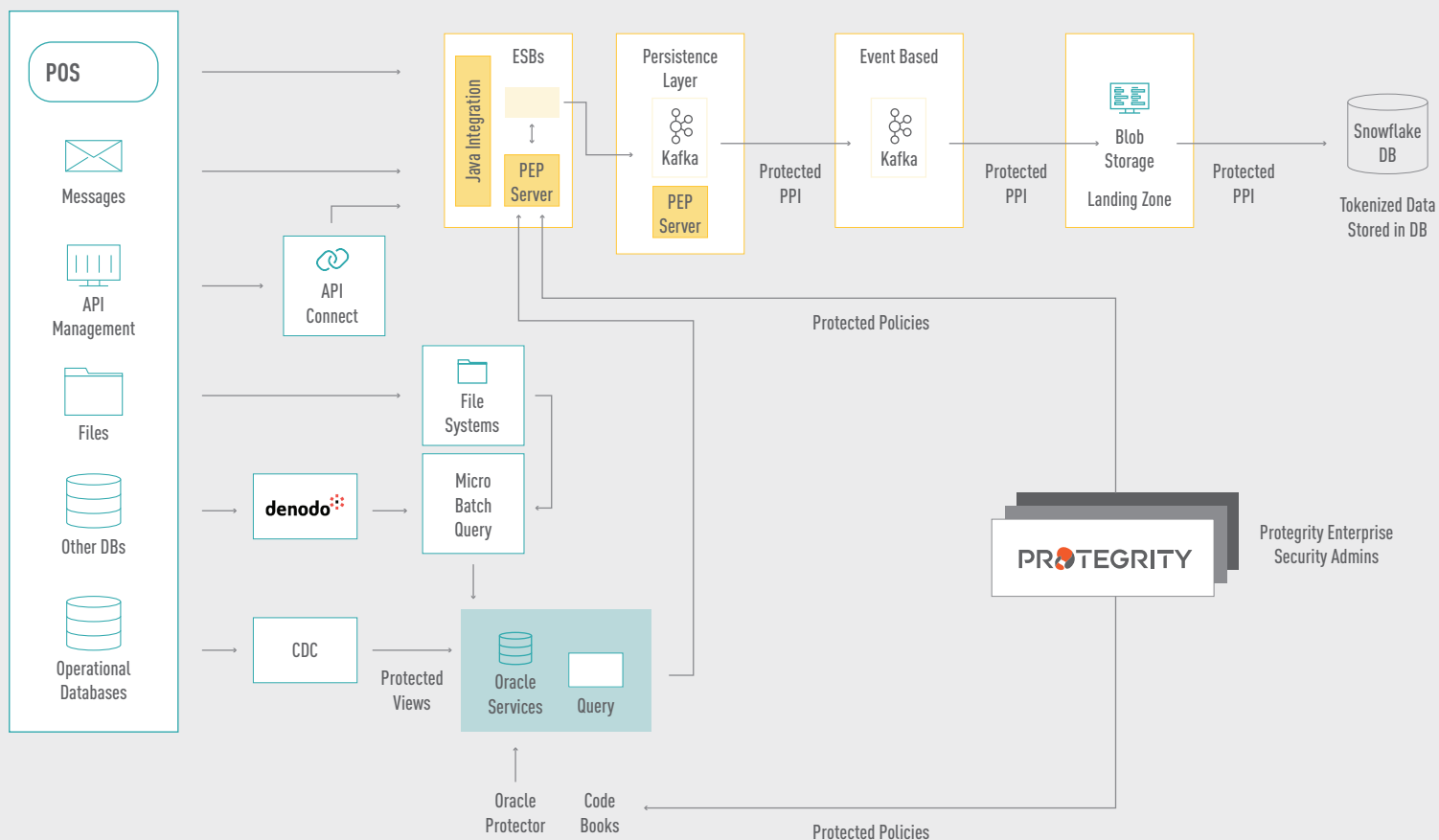
Benefits

The Denodo Platform and Protegrity's Java Application Protector in the Denodo SQL execution layer enables Albertsons to manage its customer-restricted data (PII/PHI/PCI) using replacement tokens in the Azure public cloud environment. This in turn enables Albertsons analytics teams to perform advanced customer analysis on this data while significantly reducing access to restricted data elements, improving the protection of customer privacy.

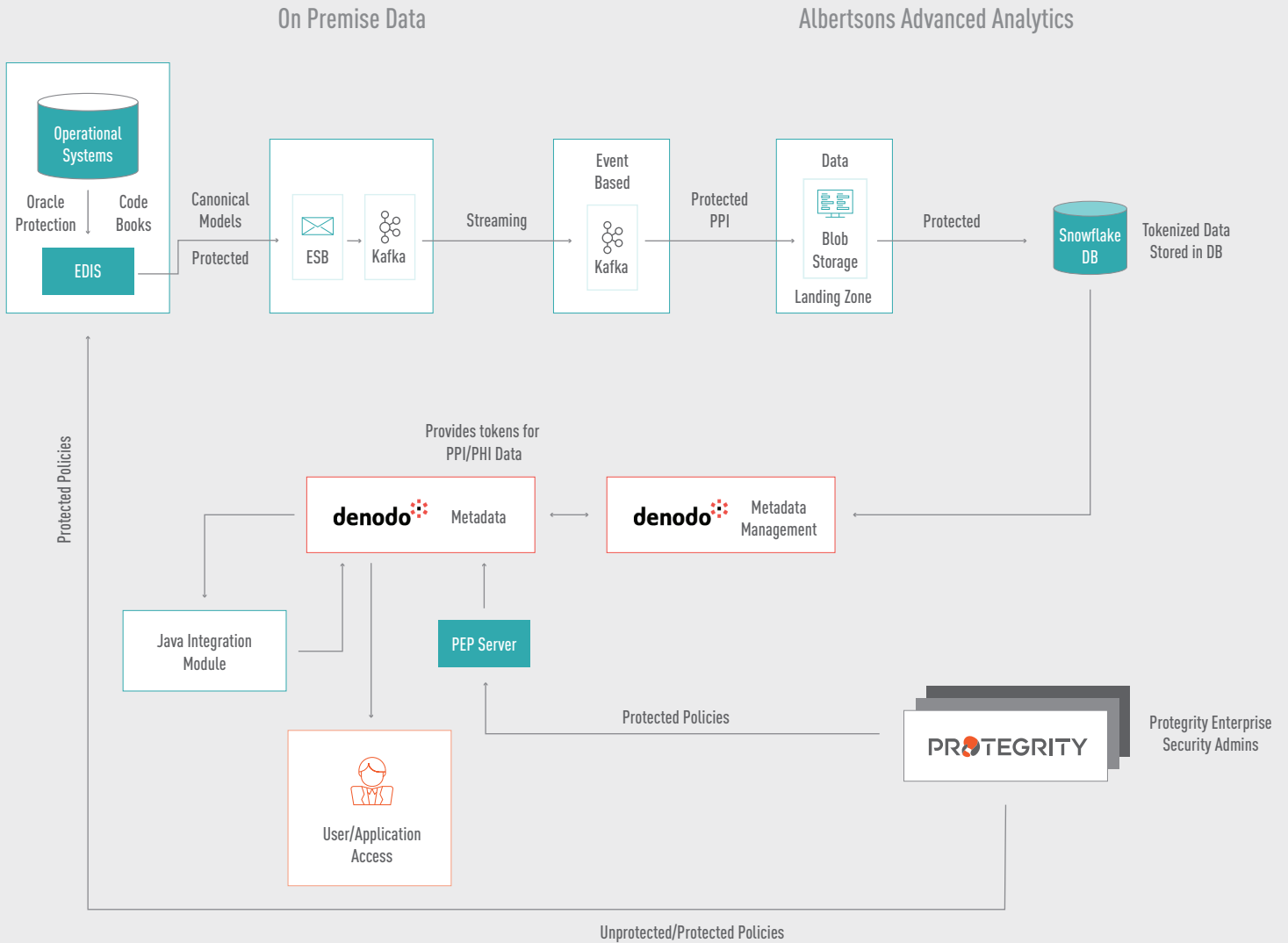
Use Case: Tokenization of PII/PHI Data in EDM

On Premise Data Services

Albertsons Advanced Analytics Platform



Use Case: De-Tokenization of PII/PHI Data in EDM



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The Denodo Platform enabled us to operate with protected data in the public cloud, which was the core goal. We also saw improved time-to-market as we had greater confidence with a layered defense.

— Steve Etchelecu,
 Solution Architect, Albertsons

Denodo Technologies is the leader in data virtualization providing agile, high performance data integration, data abstraction, and real-time data services across the broadest range of enterprise, cloud, big data, and unstructured data sources at half the cost of traditional approaches. Denodo’s customers across every major industry have gained significant business agility and ROI.

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For more than two decades, Protegrity, a global leader in data security, has protected the sensitive data of the largest brands in the world. Protegrity provides the only platform that lets enterprises decide which data should be classified as sensitive and allows them to control how they safeguard that data, enabling companies to securely and compliantly leverage external cloud data analytics.

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