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# Revolutionizing Data Engineering and Analytics with Agentic Al

Companies often face the challenge of fragmented data, complex data management, and poor data quality in their journey to realize efficient analytics capabilities.

Agentic Al for Data, powered by Microsoft's suite of technologies, including Azure OpenAl and Fabric, addresses these challenges. For example, in a recent application, the solution demonstrated its capacity to streamline database management through natural language interface to SQL and also synthetic data generation. This solution can unify data natively across a range of databases like

MySQL, Postgres etc., Data Virtualization is also supported through an integration with Starburst, which unlocks access to a wide variety of SQL or NoSQL databases. Entity Relationship (ER) diagrams can be converted automatically to Data Definition Language (DDL) scripts which simplifies workflows, while its ability to suggest and generate visualization strategies empowers business intelligence teams. As a result, it has enabled streamlining of analytics workflows, improved data quality, and democratized analytics capabilities, thus unlocking value at an Enterprise scale.



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# **Agentic Al for Data**

#### **Customer Challenges**

Common problems in the Enterprise data landscape involve:

- Fragmented data with a need for data virtualization across SQL and NoSQL databases
- A need for single source of truth (SSoT)
- Data privacy challenges with a need to secure personally identifiable information (PII)
- Synthetic Data Generation
- Need for natural language interface to SQL for business users
- Data quality issues, requiring Entity Resolution & Anomaly Detection
- Automated Visualization & intuitive Business Intelligence
- A range of Descriptive, Predictive and Prescriptive analytics

#### **Partner Solution**

Agentic Al for Data, in partnership with Microsoft, delivered a comprehensive data solution leveraging Azure OpenAl and Fabric. The solution integrated seamlessly with all the clients' existing infrastructure to unify multiple data sources and enable streamlined analytics capabilities.

This solution delivers high-impact Analytics capabilities at an Enterprise scale, democratizing access to data. The solution is powered by Large Language Models (LLMs) like Azure OpenAI and a custom Agentic AI framework.

#### **Customer Benefits**

As a result of demonstrating **Agentic AI for Data** with Microsoft technologies, all of our clients appreciated the enhanced Analytics capabilities delivering a significant improvement in their streaming data engineering and unparalleled access to data.

Clients are considering embarking on pilot programs to evaluate the solution in their environments on their Enterprise data.

#### Ability to work in any data paradigm

Enhanced Data Unification
Increased Productivity
Democratized access to data
Data Virtualization
Unlimited RDBMS Synthetic Data Generation

#### **Extensible One-stop Analytics solution**

Natural Language interface to SQL
Visualization
Intuitive Business Intelligence
Data privacy using PII detection & masking
Entity Resolution using Knowledge Graphs

#### **Data Engineering Acceleration**

Interpreting ER diagrams

Spark Orchestration

CrUD operations using Natural Language



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