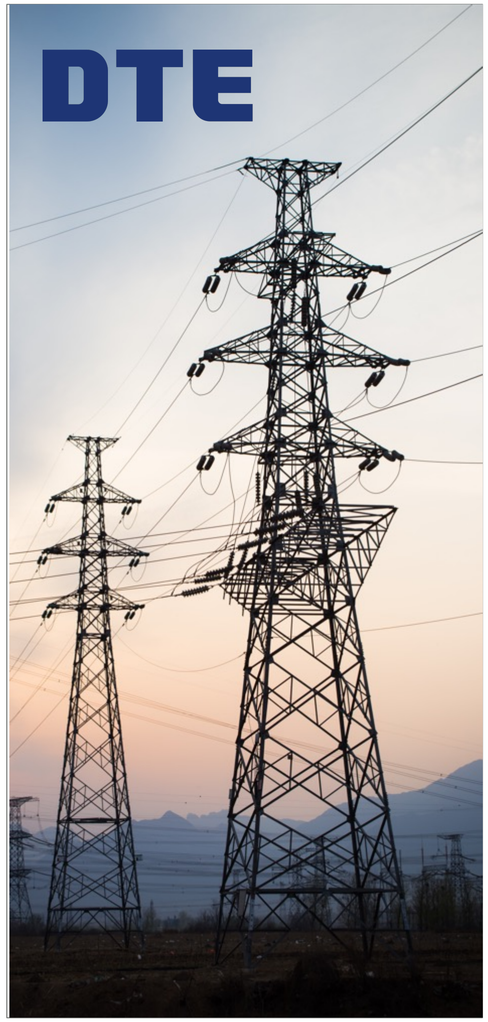
DTE Uses Data to Optimize the Grid and Enhance Service to 2.2 Million Power Customers



Challenge:

DTE needed a more modern, flexible data platform that required less maintenance and overhead than its on-prem Cloudera Big Data Platform:

- The usability of that data requires it to be centralized, secure, accessible, and analyzed in a highly scalable environment
- DTE was faced with increasing data volumes from its AMI smart metering system and new demands for predictive ML capabilities to optimize critical operational and customer experience

Solution:

DTE partnered with Neudesic and leveraged the Neudesic Insights Development Workbench Framework to:

- Fully migrate AMI data from Cloudera to the cloud in 4 days, setting the course for data classification, tagging and exploration
- Deploy a structured data lake store, and implement machine learning capabilities- including a full-scale Databricks deployment
- CI/CD was integrated into the architecture using infrastructure as code and power shell scripts to ensure proper governance and security in the cloud.

Impact:

DTE benefited from the acceleration properties of Neudesic's Azure Databricks framework which:

- Accelerated insight delivery by as much as 60% allowing for more innovation and use-cases supported by a new data science team.
- Achieved a 60X reduction in latency when running-real time stream processing from IoT data source
- Identified with 99% accuracy anomalies tied to tampered or unlinked meters.

Highlights:

60x
Reduction in latency when running real-time stream processing from IoT data source

60%
Acceleration of insights delivery to the business

99%
Anomaly detection accuracy of tampered meters

TECHNOLOGIES IN FOCUS

- CosmosDB
- Azure AppService
- Azure API Management
- Azure Application Insights
- EventHub
- Databricks Spark Streaming
- ADLS
- Azure Data Factory
- Azure SQL DW
- PowerBI

CLIENT QUICK STATS

Industry: Utilities

Organization Size: 10,600 employees

Annual Revenue: $14 Billion

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