

# Smart Meter Analytics

 **Microsoft**  
Solutions Partner

Infrastructure (Azure)  
Data & AI (Azure)  
Digital & App Innovation (Azure)  
Security  
Biz Applications



# Celebal Specialization and Strength



## Partnerships



## Advanced Specialization



- AI & Machine Learning
- Analytics
- Infra and Database Migration
- Kubernetes
- Cloud Security
- Low Code No Code
- Intelligent Automation



INDIA | USA | CANADA | APJ | MIDDLE EAST | AUS

**2800+**  
Employees

**800+**  
AI experienced  
professionals

**500+**  
AI Certifications



## Industries We Serve



Manufacturing



Retail & CPG



Financial  
Services



Energy &  
Sustainability

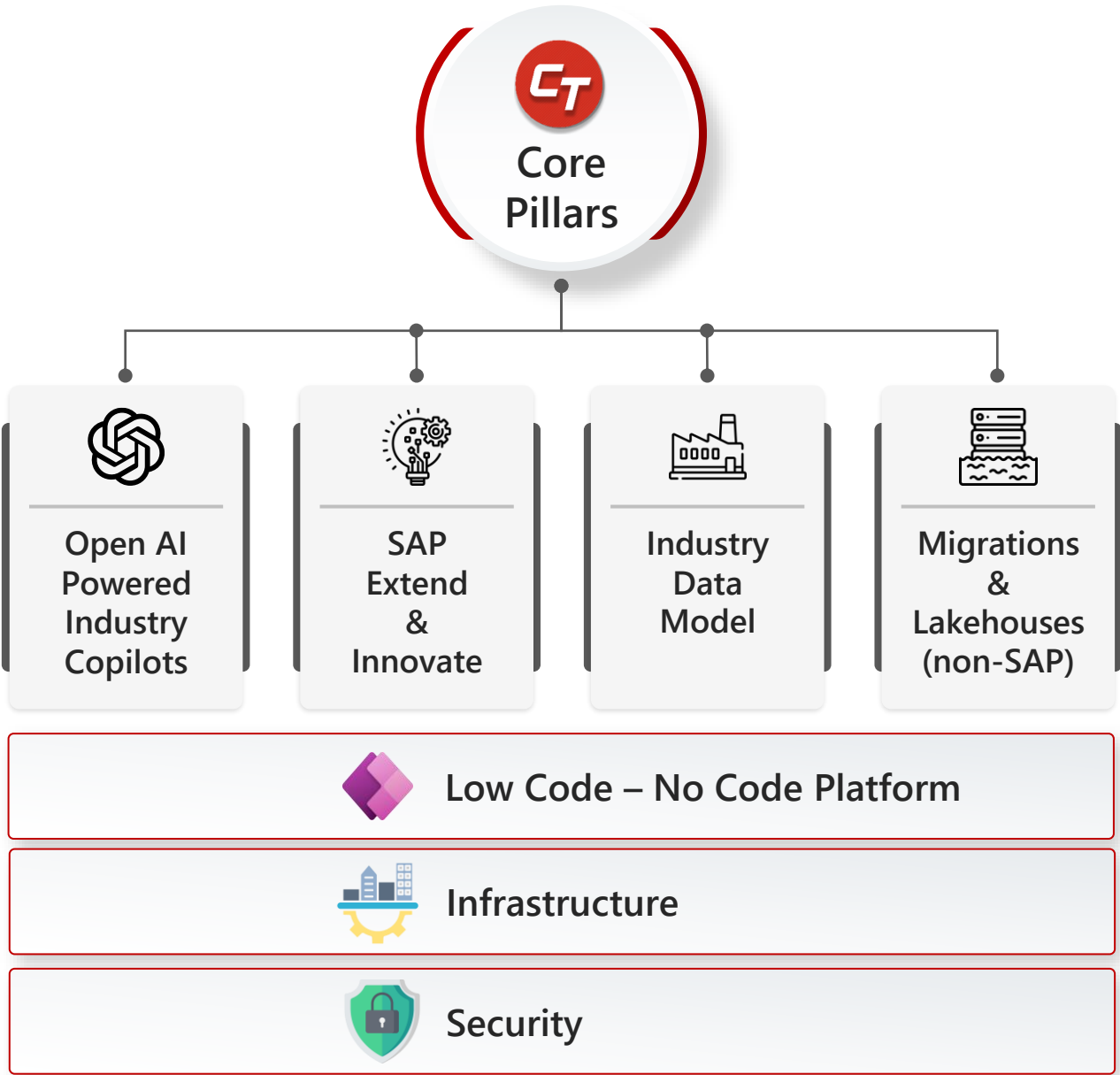


Healthcare &  
Life Sciences



Media &  
Entertainment

# Celebal Core Pillars





## 1. Brief Description of the Solution:

**Smart Meter Analytics** is a comprehensive data-driven solution designed to harness the power of smart meter data for utilities and energy providers. Hosted on Azure, it employs advanced analytics and machine learning to derive actionable insights from smart meter readings. This enables utilities to optimize grid operations, enhance energy efficiency, and empower customers with detailed consumption insights.

## 2. Business Problem It Solves:

Managing and interpreting vast amounts of smart meter data poses a significant challenge for utilities. Traditional methods struggle to extract meaningful insights efficiently, limiting opportunities for operational optimization and customer engagement. Smart Meter Analytics addresses these challenges by leveraging Azure's scalability and analytics capabilities to unlock the full potential of smart meter data.

## 3. Value Add for Customer:

- Real-Time Consumption Insights:** Smart Meter Analytics provides utilities with real-time visibility into customer energy consumption patterns. This allows for dynamic pricing strategies, load forecasting, and proactive energy management.
  - Operational Efficiency:** By analyzing historical data and predictive models, utilities can optimize grid operations, identify potential issues before they escalate, and improve outage management.
  - Customer Empowerment:** Empowering customers with personalized energy usage insights promotes energy conservation, enhances customer satisfaction, and supports sustainability initiatives.
  - Scalability and Integration:** Built on Azure, the solution scales effortlessly to handle large volumes of smart meter data. It integrates seamlessly with existing IT infrastructure, ensuring compatibility with utility management systems and quick deployment.
- Smart Meter Analytics on Azure Marketplace revolutionizes how utilities leverage smart meter data, enabling them to achieve operational excellence, enhance customer engagement, and drive sustainable energy practices.

Against a fixed set of Customer's defined distribution network data, demonstrate the possible analytics across three categories in a 4-week period



Transformer Load Forecast



Predictive grid failure



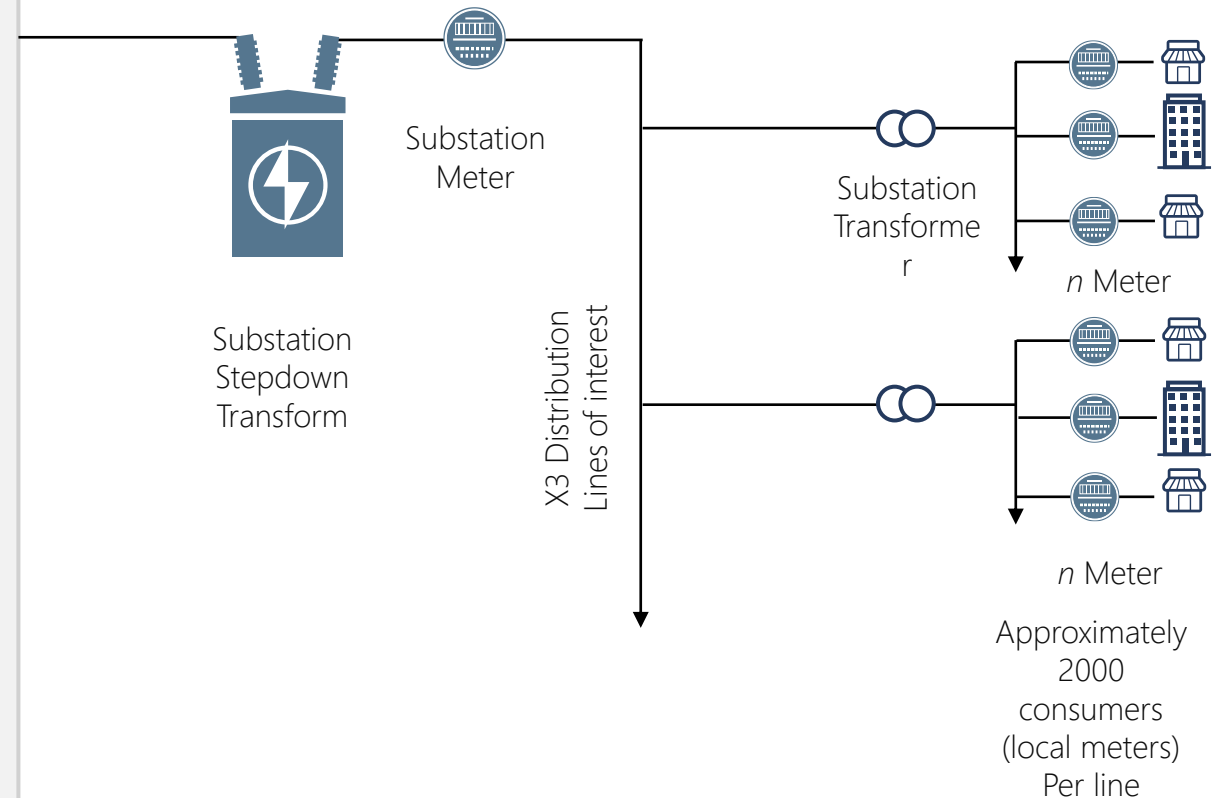
Proactively identify weakness in the network

Additionally, identify opportunities to improve/supplement data and recommend additional analytics related to the health of the distribution network.

## DATA

- ❖ Historical data for distribution was provided for 2 years at least. This included outage data, fault data and meter data.
- ❖ The data represents three lines of focus, defined as HTD 235 (SEI) / DES 243 (NOR) / WAK 235 (LAV).

Infer Health of System – predict line / transform failure





CELEBAL  
TECHNOLOGIES

# Thank You