

Cost-Effective, Reliable IoT System for an Indian Electric Utility Company



Client & Business Need

Our customer is an Indian Electric Utility company. The core business of the company is to generate, transmit and distribute electricity. With an installed electricity generation capacity of 10,577 MW, it is India's largest integrated power company. They are the first Indian company to ship over 1 GW solar modules. They were evaluating suitable IoT solutions to monitor the health of the power transformers in their substations.

Business Challenges



Cost-effective, reliable IoT system for data acquisition of oil moisture



Collection of **supervisory control** & data acquisition



Accurate quantification of transformer health index from sensor values



Cloud-hosted solution for scalable and ease of access

Solution Components & Approach

Each power transformer was equipped with an IoT sensor to log oil moisture & ambient temperature.

A dedicated gateway to consolidate SCADA data such as current and power parameters.

The wireless cellular network was utilized to accommodate a widespread sensor network.

Complete hardware sizing, integration, IoT system design, development, implementation, and management.

Cloud deployed backend system for data storage and health index computation.

Cloud-hosted Visualization dashboard to monitor collected data and the health index.

Alerting system based on the set threshold value and missing data.

Business Results



Increased energy efficiency and cost savings



Single web dashboard for faster decision making



Centralized monitoring of the health status of all the transformers



Proactive alert on transformer failure



ML-based alerts to prevent unexpected power outages

Contact Us

What are you waiting for? Let us get you started on your digital transformation journey!




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