



Large US public utility provider unifies digital infrastructure to better serve customers during outages

When a utility provider serves more than 10 million customers across multiple fully regulated transmission and distribution utilities in densely populated regions, the implications of an outage are immediate, widespread, and deeply felt. Not only can service interruptions hurt a utility provider's bottom line, they also potentially risk eroding the trust and satisfaction of the residential and commercial customers who depend on these essential services to maintain livelihoods, raise families, run businesses, and more.

The chief challenge for this Fortune 500 company—one of the largest electric companies in the US—is modernizing, standardizing, and unifying an entire energy infrastructure with multiple full-scale, physically separated, and disparate operational companies. Multiple sub-infrastructures at different stages of life add complexity, as do the increased pressures placed on the power grid due to skyrocketing energy demand, more severe and frequent weather events, and other climate change impacts.

Collaborating to uncover new possibilities, ultimately benefiting customers

Before making the leap to full-fledged data modernization, the utility collaborated with Deloitte to study, triage, and understand its needs for modernizing and standardizing on a single, unified energy infrastructure ecosystem. The effort included establishing two primary programs:

- 1 converging all legacy outage management systems to a single, unified system, and
- 2 building a separate, but interconnected, program for reporting and analytics, not just for outages, but for various other needs across the company, built on the Microsoft Azure platform.

With its deep technical and industry knowledge, Deloitte is helping the utility benefit from artificial intelligence (AI), predictive analytics, and enable use cases such as better outage forecasting. They will be able to use these tools to deliver more accurate forecasts and models, and to share real-time data with customers. Everything from real-time, accurate estimates on outage fixes to possible upcoming outages based on approaching weather are now instantly available with the tap of a button.

What the utility provider team is poised to achieve

- ✓ Enhance outage management system that provides more data and AI tools to set thresholds and predict outages based on weather patterns
- ✓ Reduce time to resolve outages, track metrics, and restore customer service with more accurate and timely outage information
- ✓ Convert outdated and legacy infrastructure systems into a more accessible, faster, cloud-based platform built on Microsoft Azure, and use of historical analysis to make smarter predictions for the future
- ✓ Leverage batch and streaming pipelines using the Microsoft Azure cloud services such as Event Hub, Stream Analytics, and Synapse to unlock additional insights
- ✓ Establish leading practices for smaller utility companies to emulate and implement
- ✓ Reinforce company's strong reputation for customer-first focus while delivering cleaner, safer, and more reliable energy

By the numbers



10 million

Electric and gas customers served by multiple utilities across the US



6 into 1

Full-scale, legacy energy systems combined into a single unified ecosystem

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