Optimizing Utility Asset Management with Esri GIS Solutions

Summary

A leading provider in utility and telecommunication services headquartered in the US, aimed to modernize its asset management approach. The organization was struggling to overcome inefficiencies in data collection, high operational costs & slow response times. By integrating ESRI GIS solutions, Techwave enabled the client to achieve a more resilient and data-driven utility network.

Business Challenges

- Outdated, paper-based systems or disconnected digital tools led to Inefficient Asset Tracking
- Lack of real-time data prevents utility managers from making timely and informed decisions
- Inefficiencies in data collection and maintenance scheduling result in increased operational expenses
- Compliance issues due to fragmented record-keeping and tracking methods
- Outages and damages require immediate action, but without real-time tracking, incident response is delayed

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Techwave established in 2004, is a global end-to-end IT services & solutions company, which develops long-term relationship with clients by leveraging unique delivery models and expert frameworks.

Industry: Telecommunication & Utility Services

Company Size: Annual Revenue \$1 billion

> **Region:** Global

Key Challenges:

Predictive Maintenance, Real-Time Data Collection, Geospatial Intelligence, Utility Asset Management

Strategy & Solutions

ArcGIS Field Maps allows field crews to capture, update, and manage utility assets in real-time, ensuring accurate data collection & mobile access to asset information. Survey123 facilitates structured data collection through custom surveys for asset inspections and maintenance, with offline capabilities to support remote operations. Esri Dashboards offer real-time data visualization, allowing utility managers to monitor asset performance, maintenance schedules & emergency response efforts efficiently.

Esri ArcGIS Online and Enterprise enabled the company to streamline its workflows and **centralize geospatial data** for better decision-making. Consistency across mobile and desktop environments led to easy access, analysis, and data sharing in real time from anywhere. Empowered teams with integrated tools for improved operational efficiency, data-driven insights & enterprise-wide geospatial management.

Business Outcomes

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Real-time field data collection ensures that all asset information is up-to-date and reliable, resulting in data accuracy.	Automated workflows and centralized data management reduce manual work, saving time and resources.	Proactive maintenance scheduling and optimized resource allocation help minimize downtime and extend asset lifespan.	Real-time tracking of outages and damage assessment enables quicker response times , improving customer satisfaction.
Comprehensive data tracking and reporting tools help utilities maintain regulatory compliance with industry regulations.	The flexible and adaptable nature of Esri's GIS tools ensures they can scale to meet evolving business needs.	Improved collaboration & accessibility through ArcGIS Online & Enterprise enhanced team coordination and operational efficiency.	Faster incident response with mobile accessibility enabled quicker identification & resolution of utility issues.

Featured Technologies



About Techwave

Techwave has been your gateway to transformative IT and engineering expertise since 2004. With roots in Houston, Texas, we lead global businesses on digital journeys. Our services include Enterprise Solutions, Product Engineering, RPA, Advanced Analytics, AI/ML, and IoT. With 3,000+ experts across 11 countries, we're committed to innovation.



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