techwave

Operational Efficiency with Automated Geospatial Data Management

About the Client

A global leader in both telecommunications and utility services, faced huge challenges with fragmented data and lack of standardization and data governance. The client struggled with siloed datasets, inconsistent data sources, and conflicting information, leading to discrepancies in analysis and decision-making. These challenges impacted the organization with inefficiencies that hindered their operational insights and decision-making.

Executive Summary

Techwave successfully implemented a Geospatial Data Migration & Standardization solution with Automation to address significant data fragmentation and inconsistencies. By centralizing disparate geospatial datasets into a unified repository, we created a "single source of truth" (SSOT), allowing for easy access to accurate, consistent data.

The solution streamlined workflows by automating data ingestion, transformation, and validation, significantly reducing manual efforts and mitigating the risk of errors. Through standardization, the data became interoperable, seamlessly integrating into the client's systems and workflows, empowering data-driven decision-making and driving operational efficiency.

Vertical:
Telecommunication & Utility Services

Region: Global

Revenue: Annual Turnover $1 billion

Key Challenges:
Data Fragmentation & Siloed Systems, Geospatial Data Management, Data Pipeline Automation

Business Challenges

- Fragmented, siloed datasets spread across multiple platforms and formats, leading to inconsistencies and duplication
- Conflicting data sources, make it difficult for teams to rely on a unified and accurate dataset
- Data ingestion, transformation, and validation require significant manual effort, slowing down workflows and increasing the risk of errors
- Lack of standardization made integration difficult, reducing the interoperability of geospatial data across systems
- Operational delays and increased costs are caused by manual data management and processing
- Inaccurate insights and decision-making challenges resulting from outdated or inconsistent geospatial data

Techwave's Strategy & Solution

▶▶ Centralizing disparate geospatial datasets into a unified repository to eliminate data silos & redundancy

▶▶ Converting the raw geospatial data into industry standard formats for easy interoperability

▶▶ Implementing automated workflows for data ingestion and validation to track the real-time updates and accuracy

▶▶ Reducing the timeline for client and partner onboarding

▶▶ Deploying automated validation checks to maintain data integrity and eliminate inconsistencies while data storage

▶▶ Smooth integration with GIS platforms, ERP systems, real-time dashboards, and asset management tools for better accessibility

Business Outcomes

Single Source of Truth: Centralized geospatial data repository, ensuring consistency and reliability across departments.

Operational Efficiency: Automated data workflows reduced manual errors and interventions, accelerating data processing and analysis.

Better Decision-Making: With real-time access to accurate geospatial data enabled more informed, data-driven decisions.

Cost Optimization: Reduced the overall operational overhead and manual data management led to huge cost savings to the client.

Scalability: The flexible and automated architecture allowed seamless integration of future data sources and evolving business needs.

About Techwave

Techwave is 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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