



Transform Utility Operations

Mapping the Way Forward

THE UTILITIES INDUSTRY plays a fundamental role in society, encompassing essential services such as electricity, gas, and water.

ELECTRIC UTILITIES are responsible for generating, transmitting, and distributing power, maintaining a reliable grid infrastructure amidst increasing demand and integrating renewable energy sources.

GAS UTILITIES manage the extraction, transportation, and distribution of natural gas, requiring precise pipeline mapping, safety monitoring, and compliance with environmental regulations.

WATER UTILITIES focus on sourcing, treating, and distributing clean water, necessitating efficient management of water resources, infrastructure maintenance, and compliance with quality standards.

NAVIGATING THE COMPLEXITIES: KEY CHALLENGES FACING THE UTILITY SECTOR

MAINTAINING A CURRENT AND ACCURATE INVENTORY

Utility companies must manage extensive infrastructure networks efficiently to ensure reliable service.

AGING INFRASTRUCTURE Utilities across many sectors face the challenge of maintaining aging infrastructure. This includes accurately mapping and managing extensive networks of pipelines, transmission lines, and distribution systems. Geospatial data plays a crucial role in providing detailed asset mapping and management capabilities, ensuring utilities can effectively plan for maintenance and upgrades.

REAL-TIME DATA INTEGRATION The integration of real-time data from various sources, including Internet of Things (IoT) sensors and monitoring systems, is increasingly vital for utilities. Real-time insights enable proactive decision-making, improve operational efficiency, and enhance customer service levels.

SUSTAINABLE PRACTICES The shift towards sustainable practices is increasingly important for utilities seeking to lessen environmental impacts and optimize resource use. This challenge encompasses initiatives to enhance energy efficiency, reduce carbon footprints, and adopt renewable energy sources.

INTEGRATING RENEWABLE ENERGY SOURCES WITH EXISTING GRIDS As electric utilities incorporate energy sources like solar and wind into their grids, they face challenges in optimizing integration for efficiency and reliability.

ENSURING PIPELINE INTEGRITY AND SAFETY

Gas companies must ensure the integrity and safety of their pipeline networks to prevent leaks, minimize environmental impacts, and comply with stringent safety regulations. Water companies have similar challenges. This requires accurate and up-to-date mapping of pipeline routes, including detailed information on pipeline conditions and surrounding environments.

ALTALIS PRODUCTS HELP THE UTILITIES INDUSTRY

Integrating Altalis geospatial data into the operations of electrical, gas, and water utilities can significantly reduce the risk of operational challenges such as power outages, inefficient grid management, difficulties in integrating renewable energy sources, pipeline failures and environmental hazards, compliance violations, inefficient water resource management, potential water quality issues, and increased leakage and maintenance costs.

Altalis offers a range of specialized products designed to address these critical challenges across the utility sectors.

CADASTRAL MAPPING is crucial for defining the precise locations of survey plans registered with Alberta Land Titles. This data integration allows utilities to accurately map their infrastructure against legal boundaries, ensuring compliance with regulatory requirements and facilitating efficient land management practices. By maintaining up-to-date cadastral maps, utilities can keep their infrastructure inventories up to date, streamline right-of-way management, thereby enhancing operational transparency and minimizing legal disputes.

ENHANCED TITLE MAPPING (ETM) provides utilities with detailed attributes such as owner names, addresses, and registration dates associated with land parcels. This information is essential for managing land ownership, lease agreements, and compliance with land use regulations. By leveraging ETM, utilities can effectively plan infrastructure development, identify potential environmental impacts, and mitigate risks associated with land tenure changes. This data transparency supports informed decision-making processes and enhances overall operational efficiency.

LIDAR 7.5 DEM (DIGITAL ELEVATION MODEL) offers utilities high-resolution terrain models critical for planning and environmental assessments. By capturing detailed elevation data, **LiDAR** enables accurate flood risk mapping, infrastructure siting, and route optimization for utilities' infrastructure projects. This spatial intelligence helps utilities to proactively address environmental challenges, optimize construction costs, and enhance resilience against natural hazards, thereby ensuring sustainable infrastructure development and operational continuity.

DAILY UPDATE SERVICES Altalis offers real-time GIS updates, which provide utilities with up-to-date **Cadastral**, **Title**, and **Disposition** geospatial data that integrates seamlessly with operational systems. By leveraging real-time data integration solutions, utilities can improve infrastructure reliability, optimize resource allocation, and enhance service delivery.

PARTNERING FOR SUCCESS: HOW ALTALIS HELPS UTILITIES THRIVE

INVENTORY TRACKING AND PLANNING Altalis provides extensive base mapping through products like **Cadastral** mapping and **Disposition** mapping, ensuring utilities maintain accurate inventories of their infrastructure.

PREDICTIVE MAINTENANCE Utilizing Altalis' **LiDAR 7.5 DEM** supports utilities in proactively managing aging infrastructure, reducing downtimes and service interruptions through predictive maintenance strategies.

REGULATORY COMPLIANCE Altalis' comprehensive geospatial datasets aid utilities in navigating complex regulatory environments, ensuring adherence to standards and avoiding penalties.

REDUCED OPERATIONAL COSTS By utilizing Altalis' **Cadastral** mapping and **Enhanced Title Mapping (ETM)**, utilities can maintain a current and accurate inventory of their infrastructure. This detailed asset management helps utilities optimize maintenance cycles and resource allocation, significantly reducing operational costs.

REDUCED ENVIRONMENTAL RISKS Altalis data supports the mitigation of environmental hazards, enhancing safety measures and reducing incidents.

LOWER COMPLIANCE COSTS Altalis helps streamline compliance processes, lowering compliance costs and operational expenses.

By leveraging Altalis geospatial data, utility companies can make informed decisions that enhance efficiency, ensure safety, and promote sustainable practices across all utility sectors.

ABOUT ALTALIS

Established in 1998, we have been the **authoritative source of spatial data and imagery in Alberta for over 25 years**. We are the leading data management, maintenance, and distribution company in Alberta, and ensure the continued updating, re-engineering, storage, distribution, value-added redistribution, and general management of primary provincial mapping datasets. Our goal is to **make mapping products more available, accessible, accurate, and affordable**. We are your trusted source of spatial data.

Our state-of-the-art webstore, **Altalis.com**, is powered by AWS enabling reliable, fast and secure data deliveries. **Customers can explore, view, and acquire spatial data products both paid and open data with the click of a button.**

We take pride in providing exceptional customer service and building long-term relationships with our clients. Our experienced customer service team is available to answer any questions you may have about finding the right data to meet your needs.

Contact Altalis today to learn more about how our comprehensive data can help your organization.



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