



## Tata Steel Utilities and Infrastructure Services Limited

### Optimizing Urban Services with Enterprise GIS

#### Customer

Tata Steel UISL (Tata Steel Utilities and Infrastructure Services Limited)

#### Industry

Manufacturing

#### Use Case

Utilities & Urban Infrastructure

#### Location

Jamshedpur, India

#### Solution

Enterprise City GIS solution

#### Organization Profile

Tata Steel Utilities and Infrastructure Services Limited (TSUISL), a subsidiary of Tata Steel, plays a vital role in enhancing the quality of community life in Jamshedpur. Responsible for essential services such as electricity distribution, water supply, and urban planning, Tata Steel UISL strives to deliver excellence in customer-centric town management and sustainable growth. Tata Steel UISL is India's only all-encompassing urban infrastructure service provider, aligned with the Tata Group's Purpose: "to improve the quality of life for the communities we serve." This purpose is reflected in Tata Steel UISL's mission to deliver **"Quality Services for Life."**

Tata Steel UISL provides a range of services, including Engineering, Procurement, and Construction (EPC), Power Distribution, Integrated Town O&M, Water and Wastewater Services, and Industrial Integrated Services. Tata Steel UISL partners with civic bodies, businesses of all sizes, local government entities, communities, and individuals to deliver value through sustainable solutions.

#### Project Summary

Tata Steel UISL's journey with Geographic Information Systems (GIS) began with utilizing GIS in a CAD (Computer-Aided Design) format. This early adoption was primarily for facilitating clearance processes and managing utility information. Over time, their GIS capabilities evolved, leading to a significant transformation with the implementation of an enterprise-wide GIS system, named OneGIS. This modern, unified GIS portal now serves as a central repository for all information related to town services, including intricate details about land utilities. GIS has been seamlessly integrated into Tata Steel UISL's broader business and service workflows, establishing the technology as a foundational element at the core of their operational processes.

#### Challenges

Before transitioning to Esri India's Enterprise Solution, Tata Steel UISL primarily relied on GIS in CAD format. The system worked well for facilitating clearance processes and managing utility information but lacked the analytical and integrative capabilities of a complete GIS environment.

Without a centralized, holistic GIS-enabled platform, Tata Steel UISL faced challenges in:

- Managing vast infrastructure data efficiently.
- Gaining visibility into assets spread across the city.
- Reducing time and costs associated with frequent on-ground surveys.
- Safeguarding underground assets and ensuring worker safety.

#### Solution

Esri India implemented a robust Enterprise GIS System that has become the central nervous system for Tata Steel UISL's urban services. The City GIS Solution system enables seamless access, measurement, planning, and collaboration across the organization. It serves as a central repository for all information related to town services, including intricate details about land utilities. By allowing integration of various business and service processes, it serves as a central, indispensable component of Tata Steel UISL's daily operations.

The strategic transition from a limited CAD-based GIS to a full-fledged enterprise-wide system has significantly resolved Tata Steel UISL's operational inefficiencies and data management complexities.

Building on its GIS journey, Tata Steel UISL plans to further expand the capabilities by:

- Integrating all urban services within a GIS-centric framework.
- Developing advanced 3D city models for immersive planning and analysis.

## Benefits

The Enterprise GIS System has yielded significant benefits for Tata Steel UISL, including:

- 1. Increased Visibility:** The system has dramatically enhanced the visibility of all assets within Jamshedpur. The enhanced visibility of assets directly translates into improved asset management and optimized operational workflows.
- 2. Improved Planning and Measurement:** The system enables users to securely log in, perform precise measurements, develop detailed plans, and accurately estimate work requirements without the necessity of physical site visits. This capability has significantly streamlined remote operations and decision-making processes.
- 3. Enhanced Safety:** The system has contributed to a marked improvement in the protection of both underground assets and personnel. By providing accurate location data and operational insights, it has effectively reduced risks and minimized potential liabilities associated with infrastructure damage or accidents.
- 4. Reduced Operational Costs and Manpower Utilization:** The capability for remote operations, facilitated by the GIS system, significantly reduces the need for on-ground visits. This not only saves valuable time but also optimizes manpower allocation, leading to potential cost savings.
- 5. Seamless Decision Making:** The integrated nature of the GIS facilitates quicker and more informed decision-making across various departments, leading to more agile and responsive operations.
- 6. Benchmarking:** The system has proven invaluable in benchmarking critical urban development areas, including water bodies, town planning initiatives, and the management of green cover, supporting sustainable growth and environmental stewardship.

The collaboration between Tata Steel UISL and Esri India highlights the transformative power of location intelligence in building smarter, safer, and more sustainable cities. With Esri India’s City GIS Solution at the core of its operations, Tata Steel UISL is setting a benchmark in urban service delivery, redefining how essential utilities and infrastructure can be managed with precision, innovation, and impact.



*Multiple underground Utility Mapping for comprehensive visibility*



*Modern water cleaning facility*



The Esri India Enterprise GIS system has been a game-changer for us. By bringing all our critical urban service data into one integrated platform, we now have unprecedented visibility, efficiency, and safety across our operations. From asset management to urban planning, GIS has become central to how we serve the citizens of Jamshedpur.



- Mr. Saikhat Mukherjee, Chief Manager (Enterprise GIS), Design Engineering and Town Planning