

Build Trusted Geospatial Foundations for Modern Enterprise Operations

Modernize legacy GIS systems, integrate siloed data, and deploy scalable enterprise platforms



Key Challenges in Building a Trusted Geospatial Foundation

Modern geospatial operations demand reliable, integrated data, yet many enterprises still struggle with fragmented systems and manual workflows.

 **Siloed & Inconsistent Data:**
Data scattered across systems, formats and geographies

 **Poor Data Quality:**
Inaccurate, incomplete and unreliable spatial data

 **Legacy Systems & Formats:** Outdated platforms and formats limit agility and integration

 **Complex Migrations:**
High effort, risk and disruption during migration

 **Modernization Gaps:**
Difficulty in adopting modern GIS platforms and architectures

 **Limited Operational Efficiency:** Manual processes, rework and inefficient workflows

Why This Matters Now

More than **2,060** GW of generation and storage capacity was waiting to connect to the U.S. grid at end-2025, with median queue-to-operation timelines exceeding five years.

[Data Source](#)

What a Modern GIS Foundation Unlocks



Trusted & High-quality Spatial Data: Accurate, consistent and reliable data for confident decision-making



Modern & Scalable GIS Platforms: Future-ready, secure and high-performing GIS environments



Reduced Risk & Technical Debt: Streamlined migrations and reduced reliance on legacy systems



Operational Efficiency:
Automated processes and optimized workflows reduce cost and rework



Faster Insights & Better Decisions: Integrated data and intelligence drive better business outcomes



Innovation & Agility:
Enable new use cases, analytics and digital transformation initiatives

The Cyient Solution: Building the Geospatial Backbone for Modern Operations

1 Data Engineering & Integration

Turning Raw Data into Trusted Information

GIS Data Integration & Transformation

- Integrate data from multiple sources (CAD, GIS, LiDAR, Imagery, IoT, ERP)
- Format conversion, schema mapping and data consolidation

Spatial ETL & Data Harmonization

- Extract, cleanse, standardize and transform spatial data
- Attribute mapping, coordinate transformation and schema harmonization

Data Quality & Validation Frameworks

CAD GIS LIDAR Imagery IoT/SCADA ERP/Enterprise

2 Legacy Data Modernization

Legacy Systems — Modern Platforms — Modernize. Transform. Future Ready.

Legacy Data Migration

- Migrate data from legacy formats and platforms to modern schemas
- Minimize risk and ensure data fidelity

Legacy Data Transformation

- Transform and remodel data to meet modern data models
- Improve usability, performance and interoperability

Utility Network Migration

- Migrate Geometric / Legacy Networks to Utility Network
- Preserve connectivity, rules and business logic

3 Enterprise GIS Transformation

Web Desktop Mobile APIs

Modern & Future-Ready GIS Ecosystem

Enterprise GIS Modernization

- Modernize architecture, workflows and applications
- Enable scalability, security and performance

Platform Deployment & Migration

- Deploy and migrate to ArcGIS Enterprise (On-Prem / Cloud)
- High availability, DevOps and best practices

Architecture & Integration

- Integrate GIS with enterprise systems and applications
- APIs, microservices and real-time integration

Enterprise Systems

ERP EAM CRM SCADA Others

Built on a Connected Indoor Technology Stack



ArcGIS Platform



FME



Python



ArcGIS Data Interoperability



PostgreSQL / PostGIS



SQL Server



ERP/CRM



Cloud Platforms (AWS, Azure, GCP)



Enterprise Systems



IoT/SCADA Sources

Industry Applications for Connected Operations



Energy & Utilities



Telecom



Transportation



Oil & Gas



Local & State Governments



Aviation



Facilities & Real Estate



Defense & Homeland Security



Mining & Natural Resources

The Cyient Advantage

Deep domain expertise across utilities, telecom, transportation and 30+ government clients, led by experienced GIS teams

Ground truth for confident decisions through reality mapping and 3D context, not just 2D maps

Anticipate change, act sooner with GeoAI and predictive modeling, guided by expert analysts

Intelligence inside daily operations via enterprise GIS integration and cloud delivery, not isolated files

A partner proven at scale as a 25+ year Esri Gold Partner with Imagery and Utility Network specialties

Proven GIS depth at scale

100+

Customers & 30+ Government Customers

120+

GIS Projects

35

Years of Geospatial Experience

10+

Industries

Ready to Transform Legacy GIS into Connected Operational Advantage?

Get in touch with us to build a trusted, scalable geospatial foundation for modern enterprise operations.

Cyient is a global lifecycle engineering company powering mission-critical industries from design to aftermarket across products, plants, and networks. With 300+ customers and 15,000+ associates across 30+ countries, we combine human expertise, deep domain knowledge, and AI to deliver intelligent engineering solutions across Aerospace and Rail, Automotive and Mobility, Connectivity, Energy, Healthcare, Mining, Utilities, and beyond.