CYIENT

Make Digital Twins Work Across the Infrastructure Lifecycle

From disconnected models to immersive operational intelligence

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What Stands Between Infrastructure Teams and Scalable Digital Twins?

Infrastructure teams cannot act on what they cannot clearly see. When asset, spatial, design, and operational data stay disconnected, planning slows, risks remain hidden, and digital twin programs struggle to scale.

- **Fragmented Infrastructure Visibility:** Siloed data and disconnected views across assets and systems
- **Limited Operational Context:** Lack of real-world context for effective planning and operations
- **Disconnected GIS, BIM & Enterprise Systems:** Inability to integrate critical design, spatial, and operational data
- **Complex Infrastructure Environments:** Highly complex surface and underground infrastructure networks
- **Limited Situational Awareness:** Difficulty in achieving real-time awareness for better decisions
- **Limited Readiness for Digital Twins:** Lack of scalable 3D foundations and live data integration

Why This Matters Now

Every hour of infrastructure downtime has a cost. Digital twins can help reduce it by **15–45%**, while lowering operating costs by up to **30%.**

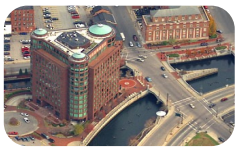
Data source

To scale digital twins, organizations must unify 3D models, reality meshes, subsurface intelligence, and live operational data into one immersive infrastructure view, enabling faster risk analysis, real-time asset monitoring, stronger collaboration, and lifecycle intelligence.

What Improves with Digital Twin Intelligence?

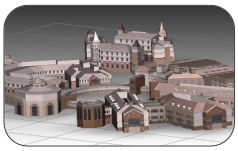
- Better visibility through immersive 3D operational environments
- Stronger planning and engineering collaboration
- Connected GIS, BIM, CAD, and enterprise workflows
- Unified surface and underground infrastructure intelligence
- Faster digital twin adoption at scale
- Enhanced operational awareness and decision-making

How Cyient Turns Complex Infrastructure into Immersive Digital Twin Environments



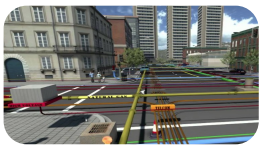
3D City Model Generation

City-scale 3D models | Multi-resolution (LOD) modeling | Urban planning & analysis



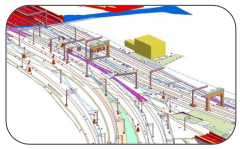
Reality-Based 3D Modeling

Reality meshes & photogrammetry Photorealistic 3D models | Textured buildings & assets



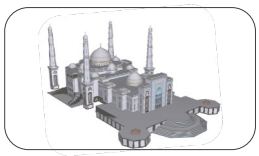
Underground Intelligence

Subsurface utility modeling (SUE) | 3D networks (water, sewer, gas, electric, telecom) | Clash detection & risk analysis



Infrastructure and Corridor Modeling

Roads, rail, bridges & corridors | Transmission & utility models | Corridor planning & clearances



Asset Modeling

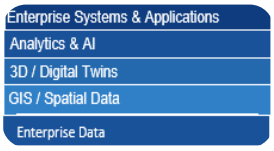
BIM to GIS integration | Design to operations handover | Asset lifecycle management

Indoor Digital Twins

Indoor mapping & modelling | Space intelligence & navigation | Facility & campus operations

Operational Digital Twin

Live data integration (IoT/ SCADA) |Real-time monitoring & alerts | Predictive analysis & insights



Digital Twin Enablement

Scalable 3D foundations | Open & interoperable platform | Enterprise-ready solutions

The Digital Twin Continuum

Data Foundation
GIS, BIM, CAD, IoT, Enterprise Systems

3D Modeling
Reality capture, 3D models, meshes & integration

Intelligence
Spatial analytics, AI/ML, risk & scenario analysis

Operations
Real-time monitoring, alerts, and dashboards

Outcomes
Smarter decisions, efficient operations, resilient infrastructure

Built on a Connected Technology Stack

ArcGIS® Indoors | GIS | BIM Models | Reality Meshes and Point Clouds | ArcGIS® Indoors & Indoor SDK | IoT Integration | Enterprise Systems (ERP, CMMS, SCADA) | Digital Twin Platforms

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+	120+	35	10+
Customers & 30+ Government Customers	GIS Projects	Years of Geospatial Experience	Industries

Ready to Realize the Full Value of Digital Twins?

Get in touch with us to explore how immersive digital twin environments can improve infrastructure planning, operations, and resilience.

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.

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