CYIENT | Nothing Less



Make Digital Twins Work Across the Infrastructure Lifecycle

From disconnected models to immersive operational intelligence

esri Partner Network Gold | esri Network Management Specialty | esri Imagery Specialty

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

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

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

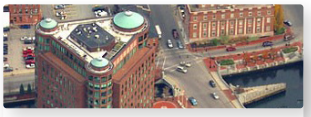
Limited readiness for digital twins: Lack of scalable 3D foundations and live data integration

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 | Multiresolution (LOD) modeling | Urban planning & analysis



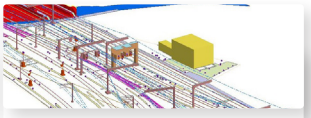
Reality-based 3D modeling

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



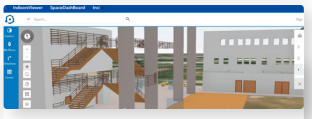
Infrastructure and corridor modeling

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



Asset modeling

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



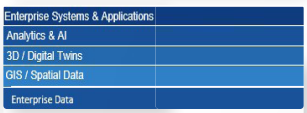
Indoor digital twins

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

1 Data foundation
GIS, BIM, CAD, IoT, Enterprise Systems

2 3D modeling
Reality capture, 3D models, meshes & integration

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

4 Operations
Real-time monitoring, alerts, and dashboards

5 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

Proven GIS depth at scale

100+ Customers & **30+** government customers | **120+** GIS projects | **35+** Years of geospatial experience | **10+** Industries

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

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 services 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 for every lifecycle across Aerospace and Rail, Automotive and Mobility, Connectivity, Energy, Healthcare, Mining, Utilities, and beyond.

To learn how we deliver exemplary outcomes, nothing less, visit www.cyient.com.

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