CYIENT
Nothing Less



# Document Sites Nearly 70% Faster with Over 95% First-Time-Right Delivery

Turn fragmented asset data into trusted 3D digital as-builts.

## Key challenge

As demand grows for faster rollouts, stronger coverage, and smarter infrastructure decisions, many networks are still planned in environments never designed for today's complexity. In the absence of scalable digital engineering solutions, operators continue to depend on flat 2D designs, manual simulations, and disconnected asset data. This results in:

| | | |
|---|---|---|
| Slower movement from **design to deployment** | Assets underutilized by **30–40%** | **€12.5B+ in potential global savings** left unrealized |

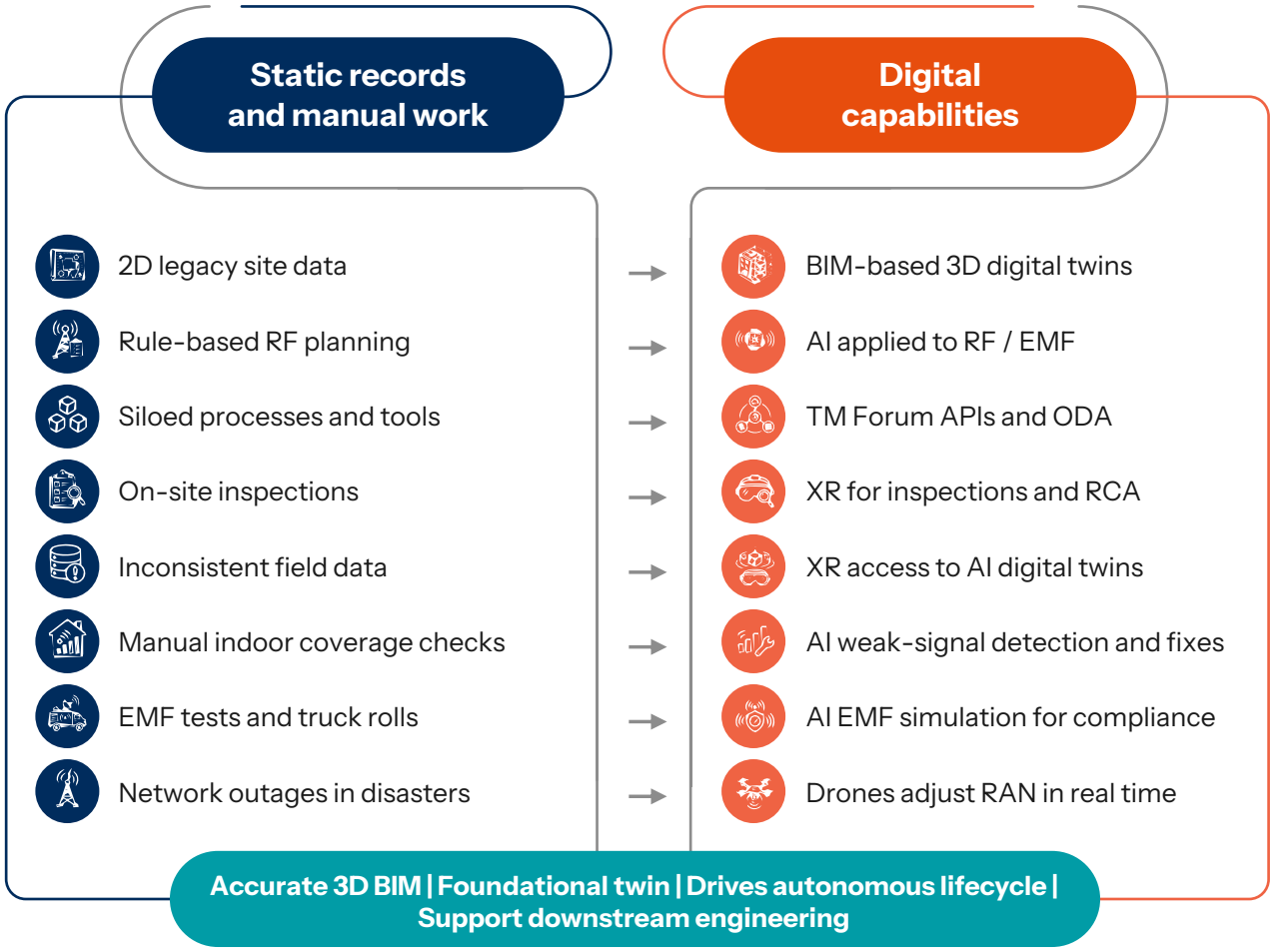
The priority has shifted from asset digitization to asset intelligence. Operators need engineering-accurate representations that turn physical assets into trusted digital assets and decision-ready insight - accelerating rollouts, reducing rework, and scaling value across the network lifecycle.

## Our solution

Cyient enables this shift with engineering-accurate 3D digital as-builts that provide a trusted foundation for planning, validation, and lifecycle decisions. Moving beyond fragmented, manually created static models, operators gain:

- **A connected digital foundation** that supports planning, operations, maintenance, modernization, and future digital twin initiatives.
- **Auto-generated, drawing-ready 3D models** built from trusted engineering data, reducing manual effort and accelerating deployment.
- **Standardized models and reusable libraries** that accelerate digitization across assets, sites, and engineering portfolios.
- **AI/ML assisted checks** that flag missing elements and inconsistencies early on.

## Operationally trusted digital as-builts




## Key benefits

### Outcomes

**Verified digital build and model**

**Intelligently** transforms fragmented engineering data into accurate, standardized, **engineering** - ready 3D **asset**

- **10× faster** digital as-built model generation
- **40% reduction** engineering effort and site rework or revisits
- **50% improvement** asset data quality and consistency through reduced manual intervention

### Lifecycle value

**Foundational twins that drive lifecycle value**

Turns engineering records into lifecycle-ready digital intelligence that supports planning, operations, inventory modernization, and digital twin initiatives.

- **80% automated** engineering pipeline across the lifecycle
- **100% traceability** supporting future planning, maintenance, and decision-making
- **15% faster** onboarding of new equipment through smart asset management

### Outlook

**One scalable model and library**

A standardized, reusable component library enables tower digitization, structural analysis, data cleansing, predictive inspection, and autonomous network readiness.

- **50% faster scaling** rapid creation of hundreds of tower models
- **Same-day turnaround** for 3D model delivery
- **Reusable approach** scalable across accounts, companies, and business units

## Our capabilities

| | |
|---|---|
| **Engineering-grade 3D asset digital representation** | • Convert 2D plans and drone data into drawing-ready 3D BIM, digital as-built and engineering-grade validated designs.<br>• Outputs feed downstream engineering workflows without repeated cleanup |
| **Catch design-vs-as-built gaps early** | • AI/ML-assisted comparison identifies missing components, layout deviations, and compliance risks<br>• Issues resolved before they become site rework or rollout delays using our tailored validation checklist. |
| **AI intelligent data fabric** | • AI-augmented enrichment of collaborative digital twins<br>• Turns unstructured field data into actionable engineering intelligence |
| **AI-augmented EMF simulation** | • Faster, more accurate EMF modeling<br>• Reduces physical testing and accelerates regulatory compliance |
| **Scale faster with a reusable equipment library** | • Standardized racks, cabinets, trays, mounts, conduits, and assemblies<br>• Each new site gets faster as the library grows<br>• AI-assisted suggestions improve placement and validation over time |
| **Drone-enabled validation (without compromising accuracy)** | • Drones support targeted checks and inspections<br>• Engineering accuracy is built into the model—not derived later |

## Case studies

### Portfolio-scale infrastructure digitization

Drawing-ready 3D BIM and as -builts standardized delivery across distributed assets—cutting documentation from days to hours.

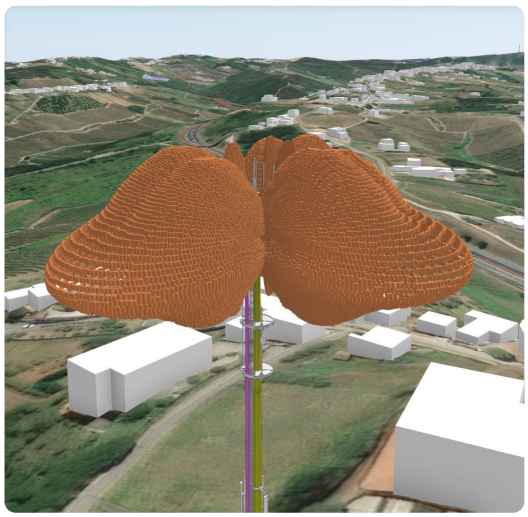






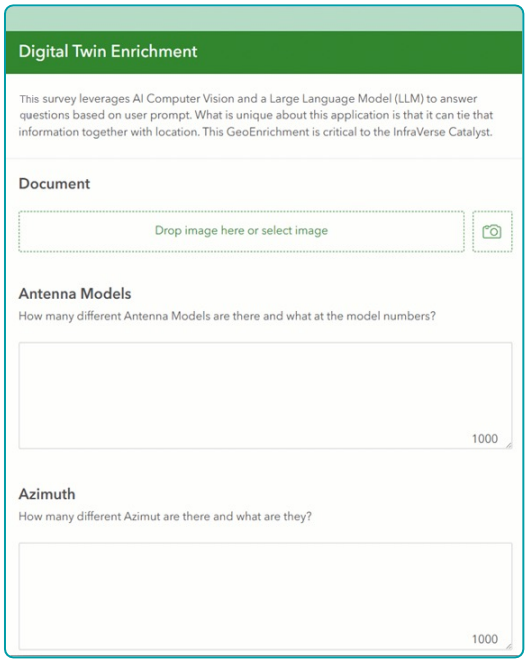
### Accelerated EMF compliance and coverage planning

Engineering-accurate 3D models reduced manual effort and shortened compliance and approval cycles.



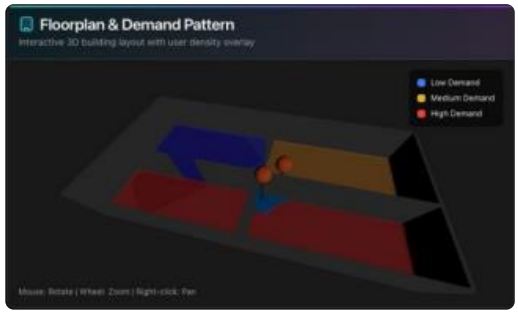
### Early design-vs-as-built gap resolution

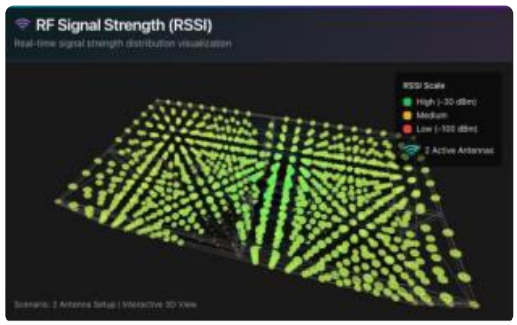
Digital comparison surfaced deviations before rework—reducing revisits and improving first-time-right delivery.




### Indoor network optimization

Accurate indoor digitization improved propagation planning, asset use, and network performance—without over-engineering.



## Why choose Cyient?

01

### Engineering depth built into every model

35+ years of network and infrastructure engineering expertise ensures outputs are accurate enough for drawings, structural workflows, compliance, and downstream engineering.

02

### Domain-led automation, not generic digitization

automated pipelines convert fragmented 2D plans, drone data, and field records into standardized 3D digital as-builts with less manual intervention.

03

### AI-assisted validation for first-time-right output

AI/ML-enabled checks identify missing components, inconsistencies, and design-versus-as-built deviations before they lead to rework or rollout delays.

04

### Reusable intelligence that accelerates every site

standardized equipment libraries, validation rules, and proven engineering workflows enable faster, more consistent delivery across large asset portfolios.

05

### Lifecycle-ready digital foundations

models are structured to support planning, modernization, maintenance, EMF simulation, digital twins, and future autonomous operations.

**Turn infrastructure data into drawing-ready digital as-builts.**

**Speak with our experts, today!**

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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