CYIENT | Nothing Less



Next-gen Central Offices – Powered by Digital Twin

The challenge

Legacy Central Offices (COs) are becoming costly—draining resources, consuming excessive energy, and making network management more complex. As communication service providers (CSPs) push for greater agility and digital transformation, upgrading infrastructure, retiring outdated equipment, and optimizing operations isn't just a priority—it's a necessity. Key challenges include:

Soaring energy costs

Outdated CO infrastructure consumes excessive power with limited ability to optimize energy use, driving up costs and environmental impact.

Compliance gaps

Aging systems often fall short of modern security, regulatory, and sustainability standards, creating operational and reputational risk.

Space constraints

Legacy DSL equipment occupies valuable rack space that could be reallocated to modern IP or fiber devices.

Copper reclamation challenge

Aging copper lines sit idle, wasting energy and space. Without timely decommissioning, they block fiber rollouts and delay recovery of valuable materials and costs.

What we do

Cyient's solution blends intelligent automation, deep telecom expertise, and digital twin technology into a cohesive platform designed to streamline CO audit, decommissioning, and network transformation. It's not just modernization—it's strategic evolution.

Decommissioning*

Network analysis

- Analysis of existing processes & tools, type of devices & services, links etc.
- Devise an optimized approach based on analysis
- Identify and validate need for additional tools to further enhance end-to-end process efficiency

Configuration & testing

- Perform pre-checks for service and link
- Perform port testing and traffic
- Apply device and service day 0 configurations, if required

Implementation

- Removal of the routes
- Perform service CANs (cancellations)
- Perform platform CANs (cancellations)
- Decommissioning of the service and device from the network

Illustration 1: Typical activities in a decommissioning process

*logical decommissioning

How it works

Here is how digital twin accelerates network optimization

Smarter planning andsimulation

Simulate network changes—such as decommissions, equipment upgrades, or rerouting—in a virtual environment to improve planning accuracy and minimize risk.

Advanced asset management

Maintain a complete, traceable digital history of network assets, including design specs, maintenance logs, and environmental data.

Real-time environmental monitoring

Leverage IoT and sensor data to monitor network conditions live, enabling proactive responses to issues before they become outages.

Data-driven operations

Centralized data and analytics streamline planning, reduce overhead, and increase transformation accuracy.

Up to 40% faster execution

Reduces time-to-market for network transformations.

Up to 95% first-time-right execution

Minimizes costly rework and manual errors.

Significant OpEx savings

Lowers energy consumption, reduces space requirements, and optimizes asset utilization.

Sustainability at scale

Optimizes energy and space use to help CSPs meet green mandates and shrink environmental impact.

Industry impact

ADSL to broadband migration for a leading Australian telco

Challenge:
Manual decommissioning of legacy equipment post-migration.

Solution:
Cyient deployed **RPA using UiPath** to streamline the transition and validation process.

Results:

40%
faster decommissioning: accelerating migration timelines.

3 MW
energy savings (26,300 MWh): optimizing power efficiency.

5U
space savings per rack – freeing up exchange floor capacity.

Lower maintenance and operational costs, which improve network sustainability.

Why us

Complete lifecycle expertise

We ensure a seamless transition to a future-ready digital infrastructure from network design to decommissioning.

Proven telecom engineering expertise

With 30+ years in wireline networks, our deep domain expertise drives consistent, high-quality outcomes.

Data-centric approach

We centralize, clean, and integrate data across systems— enabling accurate, insight-driven decisions at every stage.

Sustainable by design

Energy efficiency and environmental impact are built into every solution we deliver.

Integrated platform execution

We unify tools like virtual asset management solution, GIS, Inventory, Gen AI, and RPA to streamline transformation across your ecosystem.

Upgrade your network with AI-augmented automation and digital twin intelligence. Let's talk about making it smarter, faster, and more efficient. Get in touch 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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