

On the Radar: Cyient delivers concept to solution for network operators

Outsourcing network management reduces cost and complexity

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Summary

In brief

Cyient is an India-based technology company offering manufacturing, network, IT, and data-based services to a range of industry verticals.

In the communications vertical, Cyient delivers engineering and management systems for converged fixed and mobile networks. Its target clients are communications service providers (CSPs), and enterprises that are building, operating, and upgrading networks. The company offers an end-to-end, data-driven service, encompassing plan and design, engineering, and operations for both fixed and wireless networks. The manufacturing part of its portfolio is relatively new but provides differentiation against competitors. Cyient's expertise in fiber to the x (FTTx) and its expansion into small cells and radio access network optimization strongly position it as a partner for 5G and next-generation network (NGN) rollout. Cyient supports over 33 telecommunications operators globally with network plan, build, and operate solutions.

Ovum view

The convergence of fixed and mobile networks is accelerating with the emergence of multi-purpose network core and backhaul technologies. At the same time, commercial pressures have been forcing CSPs and enterprises to rethink network management and its relationship to their overall strategy. Networking is an essential input, but one that is fast-changing with increasing requirements for specialized managers. These trends are reinforced by the new demands generated by 5G and NGN rollouts globally.

This has created an opportunity for the outsourcing of network management to technology specialists who know how to align network management to their clients' overall commercial strategies. There is a strong preference in CSPs to contract with a single large technology partner and let them be responsible for subcontracting and managing the other, smaller vendors. These technology partners need to engage with CSPs and propose solutions, developing the business opportunity and bringing a proposal back to the CSP that specifies the external engineering and consulting services needed.

Cyient offers network design, engineering, and management, with many established installations across the globe. It offers a full suite of network design and engineering, network systems fulfillment, network management assurance, and workforce management services, allowing it to offer partial or complete turnkey network solutions to operators and enterprises depending on their objectives.

Cyient's differentiation is its full-cycle approach to conceptualizing, planning, building, operating, and transforming telco and enterprise networks. This makes Cyient a genuinely strategic outsourcing partner and allows it to create a cycle of continuous network improvement that future-proofs the outsourcing relationship.

Recommendations

Why put Cyient on your radar?

CSPs and enterprises have been under long-term pressure to reduce cost, including to improve the efficiency of their network build and operations. This is particularly the case for CSPs, which face

margin pressure while they invest in new 5G and NGN technologies, requiring them to reduce long-term cost. At the same time, CSPs must manage rapid technological change that requires ongoing investment in the design, engineering, management, and transformation of networks. Network function virtualization, software defined networks, and 5G are just the latest iterations.

As pressures on the CSP industry have increased, CSPs have looked for outsourcing arrangements that have more strategic potential to reduce cost and complexity in the long-term. 5G and fixed NGN rollouts are an opportunity for CSPs to review their outsourcing arrangements, to look for newer entrants with new statements of competency, and to strike outsourcing partnerships that do not have to be anchored in past performance.

Cyient has positioned itself along the entire chain from network concept to manufacturing, planning, engineering, and management, to meet this demand. Migration to software-centric architectures facilitates efficiency, future-proofing, and converged operation between fixed and mobile. Cyient continues to deepen its capabilities on this front to address opportunities to provide integrated solutions for all aspects of CSP network engineering and operation. Cyient is strongly positioned in both the breadth and depth of its offer in comparison to competitors of similar size and stands out in the depth of its expertise in product design, network planning and design, installation and integration, optimization, and maintenance and operations.

Evaluation

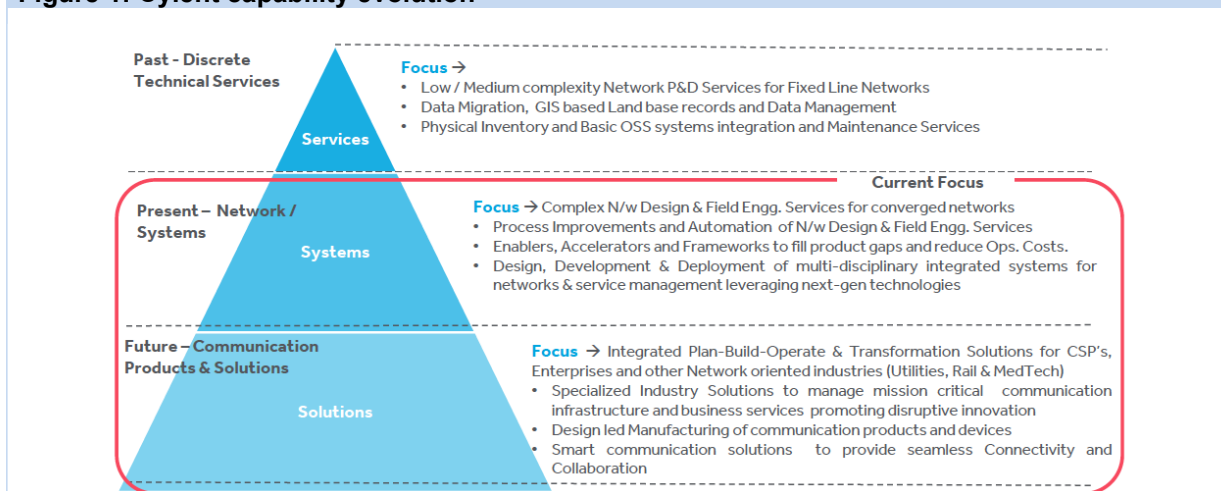
Background

Cyient was founded in 1991 in India as Infotech. It adopted its current name in 2014, around the same time that it was ranked among the top 30 outsourcing companies in the world by the International Association of Outsourcing Professionals (IAOP). Cyient provides engineering, manufacturing, geospatial, network, and operations management services, marketing itself as a design, build, operate, and maintain partner across a wide range of industry verticals, including communications. It also has a strong emphasis on the use of data analysis to offer complete solutions across value chains.

Products and services

Cyient began its career in networks with a focus on discrete network tasks such as fixed-access planning and design projects, data migration and GIS projects, and physical inventory projects. In recent years it has built a strong reputation in complex network design and field engineering services for converged networks, in enabling operational cost reductions, and in the deployment of integrated systems to manage next-gen technologies such as FTTx, small cells, and 4G.

Figure 1: Cyient capability evolution



Source: Cyient

Product and service catalog

Cyient offers deep and wide expertise in network planning, engineering and management, as demonstrated by its product and service catalog.

Services

- Fixed-line engineering:
 - Consulting.
 - Plan and design.
 - Field engineering.
 - Inventory management.
- Wireless engineering:
 - Site survey (manual, drone-based, LiDAR).
 - Plan and design (infra plan and design, property and planning, RF plan and design).
 - Field engineering.
 - Operations and maintenance (L2/L3 services, tower operations center, network audit and benchmarking).
 - DBoR (Digital Wireless Information System).
- Software engineering:
 - Physical network inventory and logical network inventory implementation.
 - Service management and assurance.
 - ICT services (software-defined networking, software-defined WAN, network managed services).
 - Network and process automation.
 - Application development and maintenance.
 - Test services and automation.
 - Rail and utilities network services.

Software products

- Network planning and optimization.
- Network performance analyzer.
- Field crew manager.
- Tower operations center.
- Network analytics.
- Digital transformation (augmented reality/virtual reality solutions, 3D smart city platform, Internet of Things [IoT] solutions).

Network infrastructure products

- Gigabit passive optical network.
- Broadband wireless terminal.
- IoT gateway.

Cyient's wireline business boasts 42 million homes passed and over 2,400 engineering staff. Typical projects include hybrid fiber coax migration, network restructuring, planning and design automation, and field force workflow management integration systems.

In the wireless business, small cells are a prominent offer. Typical projects include coverage prediction, planning and optimization, test and measurement solutions, site planning with LiDAR, and efficient fiber routing solutions. Cyient can also offer custom design and manufacturing for fixed wireless access and small cell installations through its partner ecosystem.

By partnering with Cyient on IoT, enterprises can harness the potential of IoT technology and derive the following benefits:

- Facilitate remote asset monitoring and predictive maintenance.
- Reduce business risk and operational cost.
- Make better informed decisions.
- Increase visibility and efficiency across assets.

Business model and commercial strategy

Cyient is a globally recognized outsourcing partner. Most of the company's business is based on large outsourcing projects, with Cyient addressing unique challenges in a bespoke manner at scale. In addition, there are flexible revenue models with the customers depending on the engagement.

Cyient has strongly positioned itself as a provider of integrated network solutions for CSPs with many reference cases in the global market. Its value proposition includes:

- An array of tools developed in-house to automate manual processes to ensure productivity improvements and high-quality deliverables.
- Reduced cycle time and improved quality.
- Proven ability to scale operations quickly based on client business dynamics.
- Industry certified (CFHP, CCNA, SCTE, eTOM, ITIL, Prince2, and PMP) solution consultants, engineers and architects, adept at supporting service providers in implementing best practices.

- Proven processes and knowledge of existing and emerging technologies.

Cyient is now moving to fully integrated plan/build/operate/transform outsourcing arrangements for CSPs and other network-oriented industries that will offer a more turnkey solution to current CSP challenges with network investment. This will create new options for CSP management of networks, including full outsourcing, opex/capex substitution, and revenue sharing models to help fund new network builds.

Appendix

On the Radar

On the Radar is a series of reports highlighting up-and-coming companies bringing potentially disruptive ideas, products, or business models to their markets. On the Radar companies bear watching for their potential impact on the market for the current or future services of telcos and their suppliers.

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