

# Network — Software Defined Solutions and Services

**SDN Transformation Services  
(Consulting and Implementation)**

A research report comparing provider strengths,  
challenges and competitive differentiators

**QUADRANT REPORT | JUNE 2023 | U.K.**

Customized report courtesy of:

**HCLTech**



Executive Summary

03

Introduction

Definition	11
Scope of Report	12
Provider Classifications	12

Appendix

Methodology & Team	22
Author & Editor Biographies	23
About Our Company & Research	24

SDN Transformation  
Services (Consulting  
and Implementation)

14 - 20

Who Should Read This Section	15
Quadrant	16
Definition & Eligibility Criteria	17
Observations	18
Provider Profiles	20

Report Author: Avimanyu Basu

### **The U.K. witnesses a tectonic shift in the mindset of CISOs towards security-enabled networks.**

The perception of networks being the foundation for digitalisation and the business requirements of enterprises is setting in. This digitalisation, in turn, will bolster the growth of the networks and the investments required by enterprises. As enterprises progress in executing their cloud strategies by moving workloads to the cloud, especially in multicloud environments, service providers tend to structure their offerings to help customers connect to and in between clouds. This has reinforced service providers' focus on the fixed connectivity portfolio. Furthermore, customer applications have been far more distributed in the last couple of years than they were earlier, and that is expected to continue in the short to medium term.

Most of service providers have ramped up their infrastructure footprint in the last 12 months by connecting with the appropriate cloud service providers for the relevant locations. Vodafone, for instance, has been establishing several new cloud connect data centres. It expanded its internet edge capabilities to help its customers connect to the cloud and get the desired performance from the cloud service provider. Because organizations may have several users across thousands of sites, the telcos in the U.K. adopted a strategic approach to ensure the quality of the end-user experience. Since the pandemic, many work sites have become residential homes as people are working remotely, making the UX a critical parameter in driving employee productivity and well-being. A shortcoming in application performance due to connectivity services leads to an impact on business productivity. Thus, UX has become one of the major parameters in driving boardroom discussions for enterprises. In response, telcos are working closely with several hyperscalers, such as Google Cloud and Microsoft to deliver guaranteed performance to the enterprise application services over

Enterprises tend to  
opt for **network  
as a service** or  
**network as a  
subscription models**  
as compared to  
large CapEx outlay.



the internet. Furthermore, telcos have formed partnerships with consulting firms as a step towards developing vertical expertise and bringing solutions to specific verticals. ISG expects the concept of cloud-first networking to be instrumental in the next two to three years when the industry will use multicloud applications instead of multiple cloud applications. Multicloud applications can effectually get microservices running in different kinds of clouds whilst simultaneously retaining information in real time. Thus, inter-cloud connectivity will be the backbone of next-gen networks, and several service and solution providers are strategising how to make it a key differentiator in this space of cloud-native network investments. These providers have invested in their intent-based infrastructure as a value proposition to these offerings, representing their vision to deliver a more autonomous network that is highly automated and orchestrated, taking up several day-to-day tasks without intervention from engineers.

**Agility requirement with multicloud and SaaS applications:** These operations have moved beyond concept to commercialisation. The pandemic has been driving the use of cloud-based applications, enabling users to access the network and applications from anywhere. One of the most prominent use cases is the hybrid workplace. Such workspaces are expected to continue operating even in the post-pandemic times when customers and employees would continue accessing the network remotely.

**Security is no longer an afterthought:** Enterprises aspire to bring security boundary closer to users, workloads and things. Thus, using hybrid and remote working as a foundation is a move towards zero trust network access (ZTNA) and adopting cloud-based security services.

**Technical debt and associated security risks:** One of the major reasons behind the challenges enterprises face with their network is technical debt. Each enterprise carries a technical debt that may be attributed to its tendency to prioritise other investments over technical ones, leading to the accumulation

of technical debts, such as lag in the software subscription update. Many networks could not be grown during the pandemic due to a lack of available investment. Enterprises wanted to extract the best from the network to continue working remotely. On top of that, the supply chain shortages in the last 12 to 18 months have exacerbated technical debts because manufacturers have not been able to keep up with demand for networking equipment.. So, each enterprise presently has a lot of technical debt, which needs to be retired at the earliest because it adds inefficiencies, complexity and security-related risks to the network. However, 75 percent of organizations perceive cybercrime as an imminent and increasing threat, according to NTT, and 50 percent believe they already invest in network security measures to manage these risks.

**Integration of AIOps and ChatOps-enabled functionalities:** Whilst there has been significant work on the AIOps front in networks, and several pilots have taken place, adoption at scale is still minimal. Service providers and system integrators have expressed their interest in working with enterprises to scale

these technologies. However, ISG has found instances where service providers have provided enterprises with automation- and AIOps-driven services that are anchored by the Zero Trust security framework and guided by service intelligence that improves network performance through real-time analysis. Microland, for example, has developed the Intelligeni platform, which has in-built AIOps and ChatOps capabilities that give it a self-healing network architecture. It also has features, such as AI-based anomaly detection, knowledge graphs-based dependency mapping, observability and performance dashboards.

**Lack of visibility:** This has become a critical pain point for enterprises. Most of them do not have full visibility of their estates because some may have very old legacy infrastructure, whilst some may be new. Service providers tend to work on giving them the required visibility of that inventory and the architecture because it helps begin work on digitisation.



## Executive Summary

**Limited use of predictive analytics:** There are still a lot of reactive approaches to operations, and service providers are working with enterprises to bring proactive solutions. We observe extensive use of AI for network functions. AI is often used for incident management, which involves clustering and correlation. So, in case of a stream of events from a network, AI engines can cluster and group the events based on their order and the likely root cause.

Increasingly, enterprises are picking the best solution for a particular use case and then integrating it into an end-to-end proposition.





## Provider Positioning

Page 1 of 5

	Managed SD-WAN	SDN Transformation Services (Consulting and Implementation)	Enterprise Networks Technology and Service Suppliers	Edge Technologies and Services	SASE Solutions and Service
Accenture	Not In	Leader	Not In	Market Challenger	Leader
Apcela	Not In	Not In	Not In	Product Challenger	Not In
AT&T	Product Challenger	Product Challenger	Product Challenger	Product Challenger	Product Challenger
Atos	Contender	Not In	Not In	Not In	Not In
Blaze Networks	Market Challenger	Contender	Not In	Not In	Not In
BT	Leader	Leader	Leader	Leader	Leader
Capgemini	Not In	Contender	Not In	Contender	Not In
Cato Networks	Not In	Product Challenger	Product Challenger	Product Challenger	Product Challenger
CDW	Not In	Not In	Not In	Not In	Contender
Claranet	Market Challenger	Not In	Not In	Not In	Not In





## Provider Positioning

Page 2 of 5

	Managed SD-WAN	SDN Transformation Services (Consulting and Implementation)	Enterprise Networks Technology and Service Suppliers	Edge Technologies and Services	SASE Solutions and Service
Cognizant	Not In	Not In	Not In	Contender	Not In
Colt	Leader	Leader	Leader	Not In	Leader
Comcast Business	Product Challenger	Product Challenger	Product Challenger	Not In	Product Challenger
Computacenter	Product Challenger	Market Challenger	Product Challenger	Not In	Product Challenger
Cyient	Not In	Contender	Not In	Not In	Not In
Deutsche Telekom	Leader	Product Challenger	Leader	Leader	Leader
DXC Technology	Product Challenger	Rising Star ★	Not In	Product Challenger	Rising Star ★
Evolving Networks	Contender	Contender	Contender	Not In	Not In
Expereo (Breeze Networks)	Market Challenger	Market Challenger	Not In	Not In	Market Challenger
Extreme Networks	Not In	Product Challenger	Product Challenger	Product Challenger	Product Challenger





## Provider Positioning

Page 3 of 5

	Managed SD-WAN	SDN Transformation Services (Consulting and Implementation)	Enterprise Networks Technology and Service Suppliers	Edge Technologies and Services	SASE Solutions and Service
Fujitsu	Product Challenger	Not In	Not In	Not In	Product Challenger
Globalgig	Not In	Not In	Contender	Not In	Contender
GTT	Product Challenger	Product Challenger	Product Challenger	Not In	Product Challenger
HCLTech	Leader	Leader	Leader	Leader	Leader
hSo	Contender	Not In	Not In	Not In	Not In
Infosys	Product Challenger	Product Challenger	Product Challenger	Product Challenger	Product Challenger
Intuitive Systems and Networks (ISN)	Not In	Contender	Not In	Not In	Not In
Kyndryl	Product Challenger	Product Challenger	Product Challenger	Product Challenger	Market Challenger
Logicalis	Rising Star ★	Product Challenger	Not In	Not In	Not In
LTTS	Not In	Contender	Not In	Contender	Not In







## Provider Positioning

Page 4 of 5

	Managed SD-WAN	SDN Transformation Services (Consulting and Implementation)	Enterprise Networks Technology and Service Suppliers	Edge Technologies and Services	SASE Solutions and Service
Lumen	Product Challenger	Product Challenger	Product Challenger	Leader	Product Challenger
Microland	Leader	Leader	Rising Star ★	Rising Star ★	Product Challenger
Mphasis	Product Challenger	Product Challenger	Not In	Not In	Not In
Nomios	Market Challenger	Market Challenger	Not In	Not In	Not In
NTT	Leader	Product Challenger	Not In	Not In	Leader
Orange Business	Leader	Leader	Leader	Leader	Leader
Prodapt	Contender	Product Challenger	Not In	Not In	Not In
Redcentric	Not In	Not In	Market Challenger	Not In	Not In
Sify Technologies	Not In	Not In	Not In	Not In	Product Challenger
Stream Networks	Market Challenger	Market Challenger	Market Challenger	Not In	Not In





## Provider Positioning

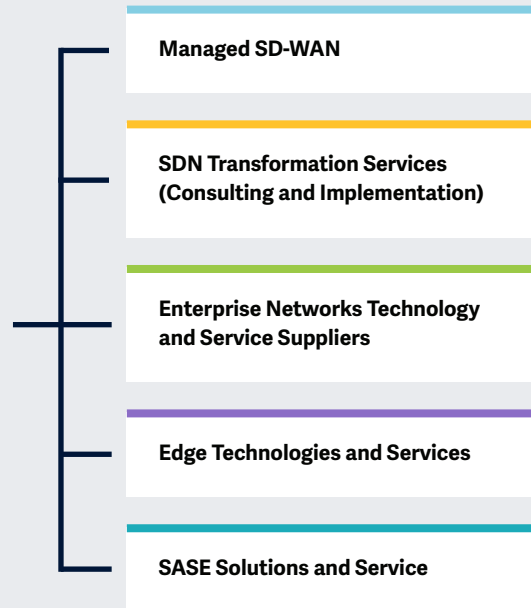
Page 5 of 5

	Managed SD-WAN	SDN Transformation Services (Consulting and Implementation)	Enterprise Networks Technology and Service Suppliers	Edge Technologies and Services	SASE Solutions and Service
Tata Communications	Leader	Leader	Product Challenger	Not In	Leader
TCS	Product Challenger	Product Challenger	Product Challenger	Product Challenger	Product Challenger
Tech Mahindra	Leader	Leader	Leader	Leader	Leader
Verizon	Leader	Product Challenger	Product Challenger	Product Challenger	Product Challenger
VMO2B	Leader	Leader	Not In	Market Challenger	Leader
Vodafone	Leader	Leader	Leader	Leader	Leader
Wipro	Leader	Leader	Leader	Leader	Leader



# Analysis of Enterprise Networks Solutions and Services 2023.

Simplified Illustration Source: ISG 2023



## Definition

This ISG Provider Lens™ study, Network – Software-Defined Solutions and Services 2023, examines various global network offerings related to enterprise networks and software-defined networking. These include software-defined wide area networks (SD-WAN), comprising managed SD-WAN services, consulting and advisory and implementation support. Enterprise networks technology and services supply — concentrating on providers of all network-related technology and services that enterprises implement and operate (including full and partial SD-WAN solutions) — covers all areas from the network core to edge-branch technology and services. The study also looks at edge technologies and services, such as IoT, universal/virtual customer premises equipment (u/vCPE) and software-defined local area network (SD-LAN), including those delivered through mobile and 4G/5G technologies and the service offerings related to these segments. In addition, the study examines secure access service edge (SASE), which is an overarching, secure and fully integrated network environment for businesses.

ISG sets out to deliver a comprehensive research program with a clear and definitive evaluation criterion, covering the developments and deliverables of service providers and equipment suppliers in this dynamic marketplace. This study accounts for changing market requirements and provides a complete market overview of the segments, along with concrete decision-making support to help user organizations evaluate and assess the offerings and performance of providers.



### Scope of the Report

In this ISG Provider Lens™ quadrant report, ISG covers the following five quadrants for services/solutions: Managed SD-WAN, SDN Transformation Services (Consulting & Implementation), Enterprise Networks Technology and Service Suppliers, Edge Technologies and Services, SASE Solutions and Services.

This ISG Provider Lens™ study offers ICT decision-makers with the following:

- Transparency on the strengths and weaknesses of relevant providers
- A differentiated positioning of providers by segments (quadrants)
- Focus on the U.K. market

Our study serves as the basis for important decision-making in terms of positioning, key relationships and go-to-market considerations. ISG advisors and enterprise clients also use information from these reports to evaluate their existing vendor relationships and potential engagements.

### Provider Classifications

The provider position reflects the suitability of providers for a defined market segment (quadrant). Without further additions, the position always applies to all company sizes classes and industries. In case the service requirements from enterprise customers differ and the spectrum of providers operating in the local market is sufficiently wide, a further differentiation of the providers by performance is made according to the target group for products and services. In doing so, ISG either considers the industry requirements or the number of employees, as well as the corporate structures of customers and positions providers according to their focus area. As a result, ISG differentiates them, if necessary, into two client target groups that are defined as follows:

- **Midmarket:** Companies with 100 to 4,999 employees or revenues between \$20 million and \$999 million with central headquarters in the respective country, usually privately owned.

- **Large Accounts:** Multinational companies with more than 5,000 employees or revenue above \$1 billion, with activities worldwide and globally distributed decision-making structures.

The ISG Provider Lens™ quadrants are created using an evaluation matrix containing four segments (Leader, Product & Market Challenger and Contender), and the providers are positioned accordingly. Each ISG Provider Lens™ quadrant may include a service provider(s) which ISG believes has strong potential to move into the Leader quadrant. This type of provider can be classified as a Rising Star.

- **Number of providers in each quadrant:** ISG rates and positions the most relevant providers according to the scope of the report for each quadrant and limits the maximum of providers per quadrant to 25 (exceptions are possible).





### Provider Classifications: Quadrant Key

**Product Challengers** offer a product and service portfolio that reflect excellent service and technology stacks. These providers and vendors deliver an unmatched broad and deep range of capabilities. They show evidence of investing to enhance their market presence and competitive strengths.

**Contenders** offer services and products meeting the evaluation criteria that qualifies them to be included in the IPL quadrant. These promising service providers or vendors show evidence of rapidly investing in products/ services and a follow sensible market approach with a goal of becoming a Product or Market Challenger within 12 to 18 months.

**Leaders** have a comprehensive product and service offering, a strong market presence and established competitive position. The product portfolios and competitive strategies of Leaders are strongly positioned to win business in the markets covered by the study. The Leaders also represent innovative strength and competitive stability.

**Market Challengers** have a strong presence in the market and offer a significant edge over other vendors and providers based on competitive strength. Often, Market Challengers are the established and well-known vendors in the regions or vertical markets covered in the study.

★ **Rising Stars** have promising portfolios or the market experience to become a Leader, including the required roadmap and adequate focus on key market trends and customer requirements. Rising Stars also have excellent management and understanding of the local market in the studied region. These vendors and service providers give evidence of significant progress toward their goals in the last 12 months. ISG expects Rising Stars to reach the Leader quadrant within the next 12 to 24 months if they continue their delivery of above-average market impact and strength of innovation.

**Not in** means the service provider or vendor was not included in this quadrant. Among the possible reasons for this designation: ISG could not obtain enough information to position the company; the company does not provide the relevant service or solution as defined for each quadrant of a study; or the company did not meet the eligibility criteria for the study quadrant. Omission from the quadrant does not imply that the service provider or vendor does not offer or plan to offer this service or solution.





# SDN Transformation Services (Consulting and Implementation)

## SDN Transformation Services (Consulting and Implementation)

### Who Should Read This Section

This report is relevant to enterprises across all industries in the UK for evaluating service providers of SDN transformation services that involve consulting and implementation.

The quadrant report highlights the network service and solution proficiency of providers that can handle network transformation, from consulting to implementation.

A macro view of the service industry portrays business-driven and environment-driven factors. From a business perspective, technological advances are expected to continue allowing businesses to disrupt their industry. There has been minimal slowdown even due to the recessionary headwinds, and enterprises are increasingly focusing on digital transformation initiatives that drive business values. However, such digital transformation initiatives tends to change from technology-led, relatively heavy, enterprise-wide, large-scale multi-year and IT-driven transformations to business-use case-driven, more agile transformations that enable the enterprises

to upgrade when required. In contrast, from an environmental perspective, the threat of recession and geopolitical instability is expected to slow down the overall growth of the services industry, which tends to cause cost pressures and push enterprises to maximise benefits out of the existing investments. As a result, enterprises are exploring options to move away from SLAs and understand the impact of investment decisions on the bottom line. The priorities of ROI have, thus been replaced by business value assessment (BVA).



#### IT and network management leaders

should read this report to understand the providers' landscape and their technical and integration capabilities.



#### Digital transformation professionals

should read this report to understand how managed SD-WAN service providers fit their enterprise's digital transformation initiatives and how they compare to one another.

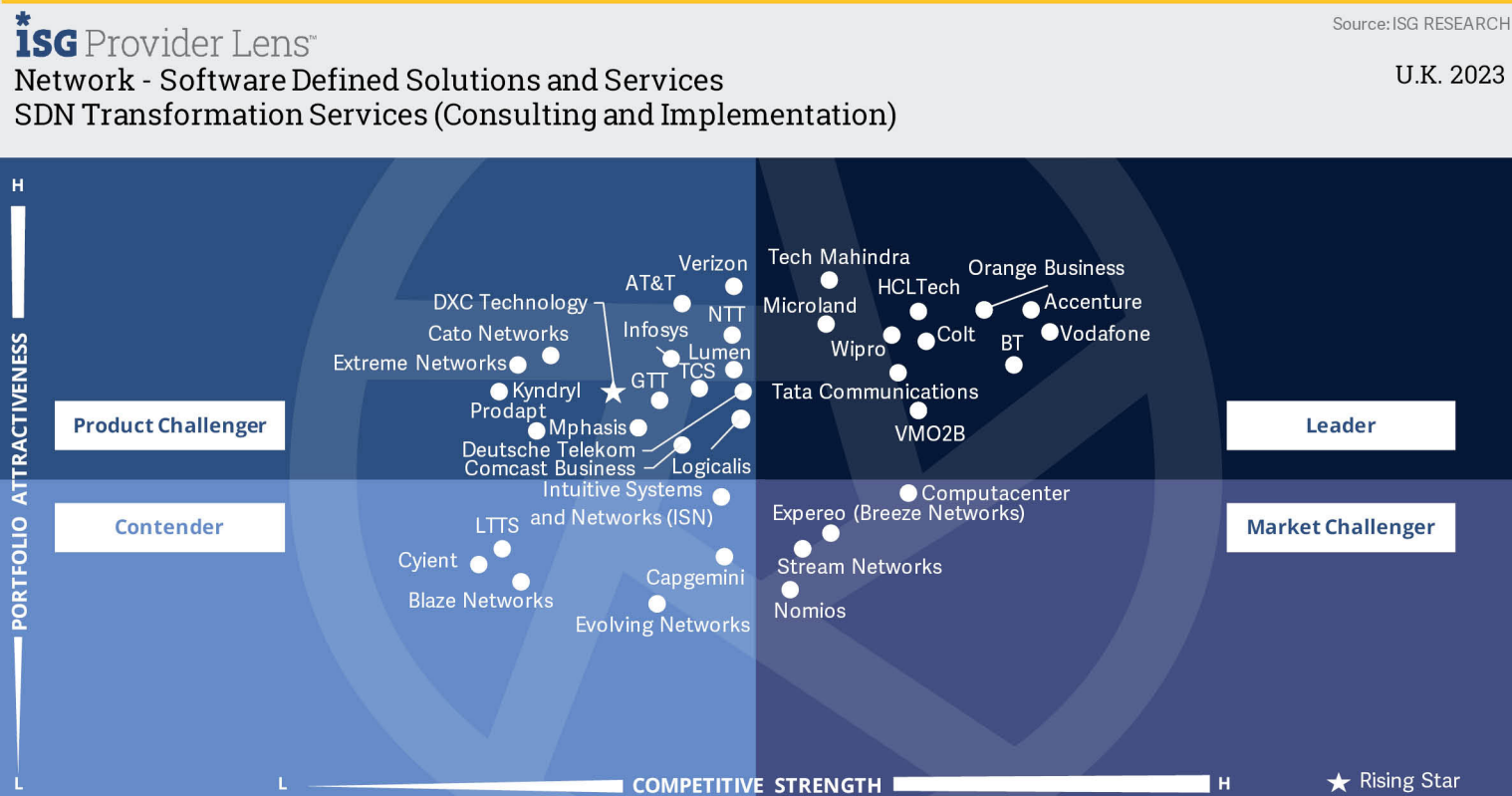


**Cybersecurity leaders** should read this report to understand the current state of security capabilities associated with consulting and other SD-WAN service providers' delivery.



**Procurement professionals** should read this report to learn managed SD-WAN service suppliers' terms around SLAs and KPIs, including service and quality levels and pay-as-you-consume options.





This quadrant analyses providers of **advisory, consulting and implementation services**, delivering **functional solutions** in the software-defined networking and SD-WAN space and encompasses initial advisor consulting to service rollout.

Avimanyu Basu





## SDN Transformation Services (Consulting and Implementation)

### Definition

This quadrant analyses providers of advisory or consulting and services associated with delivering software-defined networking and SD-WAN to enterprises, from initial advisor consulting to services delivery and rollout.

Modern businesses require more agility, flexibility, automation and security across delivery areas and various business domains. These domains include private, public, hybrid and multicloud networking, mobile application usage in the workplace, IoT, Industry 4.0, infrastructure as a service (XaaS), and intent-based AI and ML networking solutions. These require a flexible network environment that can accommodate changes quickly with minimum human intervention. SD-networking provides many benefits compared to traditional hardware-based networking and is closely related to network function virtualisation (NFV), cloudification strategies and digital transformation undertakings. However, it brings challenges in managing legacy and transformed environments and highlights the lack of skilled programmers or NetOps in some enterprises.

Suppliers in this area are increasingly active as advisors or consultants for implementation, offering complete or partial solutions or programming support to enterprises. They may also act as brokers and project managers to ensure combined coalition deliveries as planned. Consulting companies, prominent vendors and managed network services providers are also actively involved in offering SD-WAN packages in this area, independently or as a part of partnerships or consortium deals.

### Eligibility Criteria

1. **Scope of product/service portfolio**
2. **Ability to provide consultation** for strategising, right through to deploying technology, including support in integration and implementation
3. **Understanding of the overall market** and contributions to the same
4. **Scope of partnerships** and offerings and management capability for the needed orchestration within a customer project
5. **Stability** and roadmap planning capabilities
6. **Reference customer or solutions post-pilot** or commercial deployment
7. **Competitiveness** of offering and types of commercial terms



## SDN Transformation Services (Consulting and Implementation)

### Observations

As enterprises embark on their journeys to cloud- and Internet-centric connectivity, they trigger several changes to how service providers design their portfolios. Whilst an enterprise incurs significant expenditures for office connectivity to the cloud and connectivity to the internet (in case of some public-facing properties), several providers have directed their efforts to make this connectivity seamless and cost-effective. Furthermore, hybrid WAN has been the hallmark of a few heritage service providers, and these companies have effectively moved from hybrid WAN to new-age technologies, such as secure access service edge (SASE) and SD-WAN. Service providers have been effectively helping enterprises, even without a clear roadmap for connectivity, with cost-effective solutions by piggybacking on the Tier-1 global internet backbone.

The 2023 Leaders quadrant retains most of the 2022 Leaders except for very few, whose influence was either not recognised or seen as

reduced, in the analyst's opinion. A new Rising Star has been identified, with a promising portfolio and high potential.

From the 74 companies assessed for this study, 37 have qualified for this quadrant with 11 being Leaders and one Rising Star



**Accenture** provides secure, predictable, scalable and flexible solutions that align with the customer's business strategies and growth trajectory. The company specialises in enabling customers with a software-defined, cloud-native network that drives the aspired business outcomes.

### BT

**BT** aligns its transformational strategy with its clients' vision for growth. For clients with a cloud-first strategy involving accelerating the movement of workloads to the cloud, BT recommends an Agile vWAN and vEDGE Cloud route.



**Colt's** value pack, provided on top of the service pack, infuses a nimble architecture and enables the customers to add or remove services any time, providing them with a high degree of modularity.

### HCLTech

**HCLTech** has been an early mover in the SDN, SD-WAN and SDAN spaces, engaging in early collaborations with market participants, such as Cisco. This contributed to its SD-WAN offering, TIS, an iWAN SD-WAN solution, as early as 2015-2016.



**Microland** has identified key areas of operational transformation, which is often underserved to clients, unlike technology transformation.



**Orange Business'** implementation services span every stage of transformation, from procurement and staging to installation and project management. They are reinforced by a team of program managers, project managers and local delivery managers.



**Tata Communications** provides a wide range of solutions to empower enterprises to unleash the capabilities of SDN. These solutions, namely fully managed network transformation, migrate and manage and platform as a service, create value across the define, deliver, operate and optimise stages.



## SDN Transformation Services (Consulting and Implementation)

### Tech Mahindra

**Tech Mahindra** delivers network transformation in a cloud-oriented model, bringing the global network itself as a service through a network of points of presence (PoPs). The PoPs are built with carrier-neutral facilities, providing the option of bringing Tech Mahindra's own backbone to enterprises.

### Virgin Media O2 Business

**Virgin Media O2 Business'** new digital ecosystem represents a cloud-native enterprise network model focused on security and automation. The new digital core, which is the nucleus of this model, balances the network components, such as multicloud applications and security parameters.

### Vodafone

Multicloud applications can enable microservices to run in different kinds of clouds, whilst parking information in them. Thus, inter-cloud connectivity will be the backbone of next-generation networks, and **Vodafone** is focused on having key differentiators in that space.



**Wipro** has supported global network services consolidation, where global delivery models from multiple regions were consolidated in a single, event correlation and AIOps-driven delivery model, portraying effectual ownership throughout the transformation.



**DXC Technology's** (Rising Star) offerings road map represents a continuous cycle of development and evolution. It plans to extend its SDN capabilities around SDDC by adding VMware solutions, followed by expanding the SD-WAN portfolio with Cisco Meraki and Juniper solutions.





"HCLTech provides services, from ideation to incubation, around critical network assets. It has a delivery-heavy operational model and a plethora of in-house platforms and frameworks."

*Avimanyu Basu*

# HCLTech

## Overview

HCLTech's network transformation services are based on a lifecycle approach revolving around a comprehensive set of solutions to meet enterprise requirements. Its solutions and services help improve operational efficiencies, accelerate digital technology adoption and maximise the value proposition from existing investments. HCL has been an early mover in the SDN, SD-WAN and SD-LAN spaces, also engaging in early collaborations with market participants such as Cisco. This contributed to its SD-WAN offering, TIS, an iWAN SD-WAN solution, as early as 2015-2016.

## Strengths

**R&D-driven solution development:** HCL has established a web of state-of-the-art network innovation labs and experience centres that enable clients and partners to explore innovative solutions to the business problems. The company integrates and tests its solutions with its partners and collaboratively innovates and develops use cases that provide value to customers. Its concept of "POC as an outcome" adds another flavour to this research-driven approach, where customers interested in proofs of concepts are provided with them on a time-bound or fixed cost. This restricts the monetary losses associated with the POCs that fail on cost and time issues.

## New use cases integrated with the new technology stack for NetBot:

NetBot is an evolving product for HCL. The company is driving it on Ansible and making it work with the existing runbook automation engines. HCL has been developing a new technology stack at the back end that was not in the earlier NetBot roadmap. The stack will address several use cases for enterprise networks, including self-healing or intent-based networks. For example, it is the foundation of a bot for hardware switches deployed in a customer's inventory, which led to a 69 percent reduction in resolution time.

## Caution

HCL recorded a 3% QoQ decline in net profit on the quarter ended March 2023 as compared to the preceeding quarter (December 2022). This can discourage existing and potential investors.





# Appendix

The ISG Provider Lens™ 2023 – Network – Software Defined Solutions and Services research study analyzes the relevant software vendors/service providers in the U.K. market, based on a multi-phased research and analysis process, and positions these providers based on the ISG Research methodology.

**Lead Author:**

Avimanyu Basu

**Editor:**

Poulomi Nag

**Data Analyst:**

Hema Gunapati

**Quality & Consistency Advisors:**

Pierre Puyraveau, Yadu Singh, Jon Harrod, Phil Hugus and John Lytle

**Project Manager:**

Ankur Taneja

Information Services Group Inc. is solely responsible for the content of this report. Unless otherwise cited, all content, including illustrations, research, conclusions, assertions and positions contained in this report were developed by, and are the sole property of Information Services Group Inc.

The research and analysis presented in this report includes research from the ISG Provider Lens program, ongoing ISG Research programs, interviews with ISG advisors, briefings with services providers and analysis of publicly available market information from multiple sources. The data collected for this report represents information that ISG believes to be current as of March 2023, for providers who actively participated as well as for providers who did not. ISG recognizes that many mergers and acquisitions have taken place since that time, but those changes are not reflected in this report.

All revenue references are in U.S. dollars (\$US) unless noted.

The study was divided into the following steps:

1. Definition of Network - Software Defined Solutions and Services market
2. Use of questionnaire-based surveys of service providers/ vendor across all trend topics
3. Interactive discussions with service providers/vendors on capabilities & use cases
4. Leverage ISG's internal databases & advisor knowledge & experience (wherever applicable)
5. Use of Star of Excellence CX-Data
6. Detailed analysis & evaluation of services & service documentation based on the facts & figures received from providers & other sources.
7. Use of the following key evaluation criteria:
  - \* Strategy & vision
  - \* Tech Innovation
  - \* Brand awareness and presence in the market
  - \* Sales and partner landscape
  - \* Breadth and depth of portfolio of services offered
  - \* CX and Recommendation



## Author & Editor Biographies

*Lead Author*



**Avimanyu Basu**  
**Distinguished Lead Analyst**

Avimanyu Basu brings over 10 years of extensive research experience to handle telecommunication and engineering and R&D services specific research deliverables for the program called ISG Provider Lens™ that is designed to deliver research on service provider intelligence. He is responsible for authoring reports on software defined networks and network function virtualisation (SDN/NFV) and engineering services. He is also responsible for key vertical-oriented reports and thought leadership papers for manufacturing along with whitepapers revolving around specialized technologies showcased by different cross-section of enterprises.

*IPL Product Owner*



**Jan Erik Aase**  
**Partner and Global Head – ISG Provider Lens™**

Mr. Aase brings extensive experience in the implementation and research of service integration and management of both IT and business processes. With over 35 years of experience, he is highly skilled at analyzing vendor governance trends and methodologies, identifying inefficiencies in current processes, and advising the industry. Jan Erik has experience on all four sides of the sourcing and vendor governance lifecycle - as a client, an industry analyst, a service provider and an advisor.

Now as a partner and global head of ISG Provider Lens™, he is very well positioned to assess and report on the state of the industry and make recommendations for both enterprises and service provider clients.



### iSG Provider Lens™

The ISG Provider Lens™ Quadrant research series is the only service provider evaluation of its kind to combine empirical, data-driven research and market analysis with the real-world experience and observations of ISG's global advisory team. Enterprises will find a wealth of detailed data and market analysis to help guide their selection of appropriate sourcing partners, while ISG advisors use the reports to validate their own market knowledge and make recommendations to ISG's enterprise clients. The research currently covers providers offering their services across multiple geographies globally.

For more information about ISG Provider Lens™ research, please visit this [webpage](#).

### iSG Research™

ISG Research™ provides subscription research, advisory consulting and executive event services focused on market trends and disruptive technologies driving change in business computing. ISG Research™ delivers guidance that helps businesses accelerate growth and create more value.

ISG offers research specifically about providers to state and local governments (including counties, cities) as well as higher education institutions. Visit: [Public Sector](#).

For more information about ISG Research™ subscriptions, please email [contact@isg-one.com](mailto:contact@isg-one.com), call +1.203.454.3900, or visit [research.isg-one.com](https://research.isg-one.com).

### iSG

ISG (Information Services Group) (Nasdaq: IIG) is a leading global technology research and advisory firm. A trusted business partner to more than 900 clients, including more than 75 of the world's top 100 enterprises, ISG is committed to helping corporations, public sector organizations, and service and technology providers achieve operational excellence and faster growth. The firm specializes in digital transformation services, including automation, cloud and data analytics; sourcing advisory; managed governance and risk services; network carrier services; strategy and operations design; change management; market intelligence and technology research and analysis.

Founded in 2006, and based in Stamford, Conn., ISG employs more than 1,600 digital-ready professionals operating in more than 20 countries—a global team known for its innovative thinking, market influence, deep industry and technology expertise, and world-class research and analytical capabilities based on the industry's most comprehensive marketplace data.

For more information, visit [isg-one.com](https://isg-one.com).







**JUNE, 2023**

---

**REPORT: NETWORK — SOFTWARE DEFINED SOLUTIONS AND SERVICES**