

Network — Software Defined Solutions and Services

A research report comparing provider/software vendor strengths, challenges and competitive differentiators

Customized report courtesy of:



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Report Author: Avimanyu Basu

Transformative customer experience in a cloud environment

The network is often viewed as a commodity by U.K.-based enterprises, even though it has the capability to become the growth engine for the business. Because the network is the foundation for IT modernization, which is required for application, computing and workplace transformation, it has become paramount to consider the network as a major business driver. Several service providers and system integrators are accommodating the network components in a relevant architecture that is centred around the personas of the business users. This necessitates the provision of superior services to meet the needs of business users, irrespective of their

category. Modern networks must address the unique needs of each user in terms of access policy and the criticality of the applications they consume, as well as prioritization of user-specific traffic, which is carried through the entire network to enable a top-notch user experience.

Enterprises are evaluating various means to increase their agility, flexibility, competitiveness, delivery structures, and remote working and continuity practices, due to the impacts incurred during the COVID-19 pandemic globally in 2020. A large part of this challenge is not only associated with technology use, but also with the transformation of established processes and traditional management practices. Enterprises are also analysing how companies can achieve a sufficient degree of flexibility, speed, and collaboration internally and across and outside of enterprise boundaries while being able to address their challenges to

SD technologies - shaping the future of network.



Executive Summary

deliver benefits to themselves and their (ever more mobile) customers and users, including at the edge of the business and edge of the traditional network.

Enterprise agility goes far beyond traditional network abilities and provisioning capabilities, mainly in a constantly changing competitive environment. This adjustment and the speed at which it is realised are relevant and critical for the whole enterprise organization and value stream. CEOs and chief technology officers must understand that software-defined (SD) networking works together with cloudification, intelligent edge and mobility strategies, along with digital business transformation areas such as AI, IoT, automation and collaboration. These collectively have a high influence on agility, flexibility, productivity and profitability.

In the U.K., some of the primary factors driving these rapid changes in enterprises are as follows:

- Business users are placed at the core of any network service offering and service providers and, thus, tend to ensure an openness and transparency in the services, which is provided with real-time dashboards and insights. This reflects the appropriate operation of business functions for each business user.
- The pandemic has been one of the macro forces that shaped the needs of modern organizations, driving the necessity to adopt digital technologies, such as the cloud and mobility services, as well as technologies such as AI and machine learning. Together with network innovations such as 5G, SD-WAN and Wi-Fi 6, the gamut of solutions offered by the technology developers and system integrators has

driven the market to make the network more consumable. Consistently, network as a service (NaaS) has evolved from the typical bundling of services around LAN, WAN and SDN, together with IT components and circuits, to a more holistic set of services, including multicloud strategies and software-defined everything (SDx). SDx has eventually emerged as the form factor for network-oriented innovations. As a result, policies and relevant personas can be applied to manage the network and measure its performance. Thus, the network can be made to function in a fundamentally new way to achieve the desired business outcome, and it can be metered on a consumption basis and can be scaled up and down flexibly.

- Several U.K.-based telcos had already built the products for SDx implementation and have been trying to render it as a service. However, they

received a lot of feedback from customers that the product partners that helped build their services have created limitations that restrict scaling up and scaling down. Thus, telcos' incumbency, with their captive customers, gradually became open for renewal and refreshing. The system integrators are getting involved in building customised solutions and rendering it as a service to the telcos.

- There has been a strong push across the industry to embed security services into the network fabric and associated network services instead of keeping security as a separate function. The evolution of architectures such as SASE and ZTNA gradually emerged from the white board in the last few years and have reached the stage of being rolled out by technology providers, which, in turn, is resulting in a positive consolidation in the market.



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With the simplification of convergence being driven in the services and technology space, system integrators are influenced to further their service offerings to the next level, for example, around developing the proficiency to manage necessary speed and scale, as well as continuing to digitise their services and solutions, best practices and ways of working.

- The business transformation is not happening as a single series or stream of functions but as two sub-transformations. Typically, the clients execute global assessments where the people, processes and tools are standardised along with technology transformation. Typically, this revolves around changing from command line interface (CLI) to SD services. Next is the operational transformation, which is the transformation of operations that surround the technology, allowing

the client to execute a business transformation strategy. While these sub-transformations are effectually served to the enterprises, the service providers and system integrators are trying to differentiate themselves by focusing on operational transformation, which is often underserved to the clients.

- The network model has been undergoing a paradigm shift, from bespoke equipment from a single equipment manufacturer to a disaggregated model for architecting new age, 4G/5G native networks, which would accommodate distributed computing and interoperability of the network elements. Although the enterprises are accustomed to a bespoke model due to the one-stop shop attributes such as packaged service and single sourcing to streamline overhead and maintenance

activities, they are gradually realising the value of the disaggregated model, wherein the old technologies and products can be upgraded or integrated into the new and advanced ones as technology evolves. As the components can be sourced from different suppliers, service providers can choose the best-of-breed architectures, which enhance competitive innovation and pricing.

- While most service providers and system integrators started their SDN journey from the data centre network, with solutions such as Cisco ACI and VMware NSX, the providers have been increasingly focusing on SD-WAN since the last few years. SD-WAN has become a mainstream now; thus, there is no further requirement of traditional routers. Due to the pandemic, enterprises are extending SD-WAN to the home offices. Also, they have started deploying SD-LAN as an

integrated fabric of the entire network, extending it from the data centre to the branch edges. With further levels of maturity in this space, the adoption of intent-based networking (IBN) is expected to increase in the future.

- The market has witnessed a shift from private to public networking in the last 12 to 18 months. This is due to the adoption of more distributed network during the pandemic. This, in turn, has triggered the integration and convergence between different domains within the network components such as the LAN and WAN.
- With the pandemic impacting the enterprise businesses in the U.K., there is an increased focus on improving operational efficiency through greater automation. Significant efforts are being directed towards remote operations; hence, digital infrastructure transformation has become a key



Executive Summary

focus for enterprises. Enterprises are seeking help in identifying functional, transformational pillars to differentiate their businesses during the challenging times. As a result, there are greater levels of changes or accelerations in moving workloads to the cloud; SDN adoption and network virtualization are prominent in the infrastructure side.

Within this report, ISG divides the market into the relevant quadrants and analyses the specific regional market and identifies those providers that are among the current market leaders and the strongest competitors of these leaders.

UK enterprises remain on the quest for self-organising networks.



Provider Positioning

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	Managed (SD) WAN Services	SDN Transformation Services (Consulting and Implementation)	Enterprise Networks Technology and Service Suppliers	Edge Technologies and Services	Secure Access Service Edge (SASE)
Advatek	Market Challenger	Not In	Market Challenger	Not In	Market Challenger
Apcela	Product Challenger	Product Challenger	Product Challenger	Product Challenger	Not In
Aryaka	Leader	Product Challenger	Not In	Not In	Leader
AT&T	Product Challenger	Product Challenger	Product Challenger	Product Challenger	Product Challenger
Atos	Contender	Not In	Not In	Not In	Not In
Breeze Networks	Market Challenger	Market Challenger	Not In	Not In	Market Challenger
BT	Leader	Leader	Leader	Leader	Leader
Capgemini	Not In	Contender	Not In	Not In	Not In
Cato Networks	Not In	Product Challenger	Product Challenger	Product Challenger	Product Challenger
Cisco	Not In	Not In	Leader	Leader	Product Challenger



Provider Positioning

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	Managed (SD) WAN Services	SDN Transformation Services (Consulting and Implementation)	Enterprise Networks Technology and Service Suppliers	Edge Technologies and Services	Secure Access Service Edge (SASE)
Citrix	Not In	Not In	Not In	Product Challenger	Not In
Claranet	Market Challenger	Not In	Not In	Not In	Not In
Colt	Leader	Leader	Not In	Not In	Leader
Comcast Business	Product Challenger	Product Challenger	Product Challenger	Not In	Product Challenger
Computacenter	Product Challenger	Rising Star ★	Product Challenger	Not In	Product Challenger
Cyient	Not In	Contender	Not In	Not In	Not In
Deutsche Telekom	Leader	Leader	Leader	Leader	Leader
Extreme Networks	Not In	Product Challenger	Product Challenger	Product Challenger	Not In
FatPipe	Not In	Not In	Contender	Contender	Not In
Fortinet	Not In	Not In	Not In	Product Challenger	Product Challenger




Provider Positioning

Page 3 of 5

	Managed (SD) WAN Services	SDN Transformation Services (Consulting and Implementation)	Enterprise Networks Technology and Service Suppliers	Edge Technologies and Services	Secure Access Service Edge (SASE)
Fujitsu	Product Challenger	Not In	Not In	Not In	Product Challenger
GTT	Product Challenger	Product Challenger	Not In	Not In	Product Challenger
HCL	Leader	Leader	Leader	Leader	Leader
HPE Aruba	Not In	Not In	Not In	Product Challenger	Not In
Infosys	Product Challenger	Product Challenger	Product Challenger	Product Challenger	Product Challenger
Juniper Networks	Not In	Not In	Product Challenger	Product Challenger	Not In
Logicalis	Product Challenger	Product Challenger	Not In	Not In	Not In
LTTS	Not In	Contender	Not In	Not In	Not In
Lumen	Product Challenger	Product Challenger	Product Challenger	Leader	Product Challenger
Microland	Rising Star ★	Leader	Product Challenger	Rising Star ★	Rising Star ★
Mphasis	Product Challenger	Product Challenger	Not In	Not In	Not In



 Provider Positioning

	Managed (SD) WAN Services	SDN Transformation Services (Consulting and Implementation)	Enterprise Networks Technology and Service Suppliers	Edge Technologies and Services	Secure Access Service Edge (SASE)
nacXwan	Market Challenger	Not In	Not In	Not In	Not In
Neos Networks	Market Challenger	Not In	Not In	Not In	Not In
Nokia	Not In	Not In	Not In	Leader	Not In
NTT	Leader	Product Challenger	Not In	Not In	Leader
Nuvias	Not In	Not In	Market Challenger	Not In	Not In
Open Systems	Contender	Not In	Not In	Not In	Contender
Orange Business Services	Leader	Leader	Leader	Leader	Leader
Peplink	Not In	Not In	Not In	Contender	Not In
Pica8	Not In	Not In	Contender	Contender	Not In
Prodapt	Contender	Product Challenger	Not In	Not In	Not In
Riverbed	Not In	Not In	Not In	Market Challenger	Not In



Provider Positioning

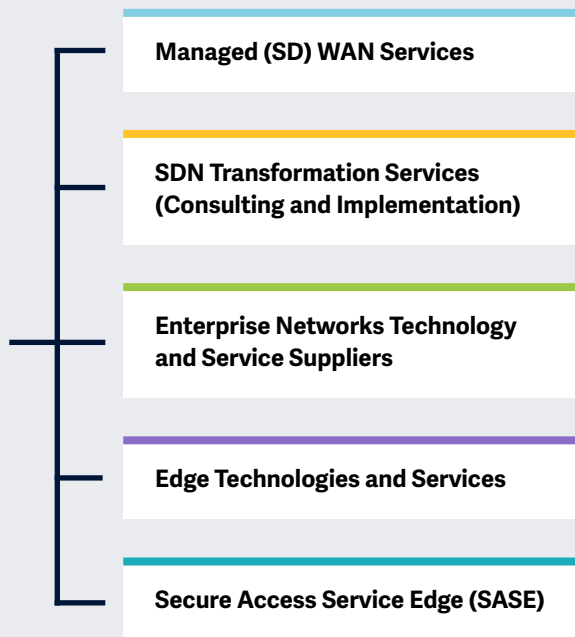
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	Managed (SD) WAN Services	SDN Transformation Services (Consulting and Implementation)	Enterprise Networks Technology and Service Suppliers	Edge Technologies and Services	Secure Access Service Edge (SASE)
SAS Global Communications	Not In	Contender	Not In	Not In	Contender
Talari Networks	Not In	Not In	Contender	Not In	Not In
Tata Communications	Leader	Leader	Rising Star ★	Not In	Leader
TCS	Product Challenger	Leader	Product Challenger	Product Challenger	Product Challenger
Tech Mahindra	Leader	Leader	Leader	Leader	Leader
Verizon	Leader	Product Challenger	Product Challenger	Product Challenger	Product Challenger
Versa	Not In	Not In	Not In	Leader	Product Challenger
VMO2B	Leader	Leader	Not In	Not In	Leader
VMware	Not In	Not In	Product Challenger	Leader	Product Challenger
Vodafone	Leader	Leader	Leader	Leader	Leader
Wipro	Leader	Leader	Leader	Leader	Leader



This study focuses on critical segments of SD Networking in 2022.

Simplified Illustration Source: ISG 2022



Definition

This ISG Provider Lens™ study, Network — Software Defined Solutions and Services 2022, examines various kinds of global network offerings related to enterprise networks and SD networking. These include software defined wide area networks (SD-WAN), which include managed SD-WAN services, consulting and advisory, and implementation support. Enterprise networks technology and services supply, - concentrating on providers of all technology and services related to networks which enterprises implement and operate themselves, (including full and partial SD-WAN solutions, OSS/BSS, etc), covering 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 the ones delivering through mobile and 4G/5G technologies and the service offerings related to these segments. In addition, the study will examine secure access service edge (SASE), which is a fast growing and overarching, secure and fully integrated network environment for businesses.

Enterprises are evaluating various means to increase their agility, flexibility, competitiveness, delivery structures, and remote working and continuity practices. This is mainly due to the impacts of COVID-19 pandemic globally during 2020-2021. A large part of this challenge is not only associated with technology use, but also with the transformation of established processes and traditional management practices. Enterprises



are also analysing how companies can achieve a sufficient degree of flexibility, speed and collaboration internally and across and outside of enterprise boundaries, while being able to overcome their challenges, to deliver the benefits to themselves and their (ever more mobile) customers and users, including at the edge of the business and edge of the traditional network, in a highly secure manner. This adjustment and the speed at which it is realised are relevant and critical for the entire enterprise organization and value stream. Enterprises must understand that software defined networking works together with cloudification, intelligent edge and mobility strategies, along with digital business transformation areas such as AI, IoT, machine learning, and automation and collaboration. as well as examining and potentially implementing overarching strategies linking business goals, security

and networking together into fully integrated architecture and systems such as SASE. These collectively have a high influence on agility, flexibility, productivity, security, customer/user satisfaction and profitability.



Scope of the Report

In this ISG Provider Lens™ quadrant study, ISG includes the following 5 quadrants on Managed (SD) WAN Services, SDN\ Transformation Services (Consulting and Implementation), Enterprise Networks Technology and Service Suppliers, Edge Technologies and Services, and Secure Access Service Edge (SASE) solutions

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

- Transparency on the strengths and weaknesses of relevant providers
- A differentiated positioning of providers by segments
- Focus on regional 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 IT service requirements from enterprise customers differ and the spectrum of IT providers operating in the local market is sufficiently wide, a further differentiation of the IT 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 IT 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 US\$20 million and US\$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 US\$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.





Managed (SD) WAN Services

Who Should Read This

This report is relevant to enterprises across all industries in the U.K. for evaluating providers that offer managed network services (primarily, enterprise SD-WAN or hybrid MPLS/IP WAN).

The quadrant report aims to highlight the network services and solutions proficiency of selected providers, enabling enterprises to select the right partner for network transformation.

Many enterprises are adopting SD-WAN for their networks, as it provides superior performance in a cloud-centric environment and enables ease in traffic management, access and other aspects of the networking solution. Remote working has led to an increased adoption of SD-WAN because it provides a virtual WAN architecture that allows businesses to use any combination of transport

services including broadband, LTE, MPLS and Internet services for connecting the user to applications securely.

The adoption of SD-WAN among enterprises in the U.K. is continuing to grow because they see a measurable impact such as improvements in the cloud applications performance. Most enterprises prefer a fully managed SD-WAN from a managed service provider. SD-WAN lays the foundation for virtual network services, and uCPE deployments are increasing among enterprises.



IT and network management leaders should read this report to understand the relative positioning and capabilities of providers that can help them effectively consume managed SD-WAN services. The report also shows how the technical and integration capabilities as well as partnerships of service providers differ from the rest.



Digital transformation professionals should read this report to understand how providers of managed SD-WAN services fit their 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 the providers of consulting and other SD-WAN services delivery.

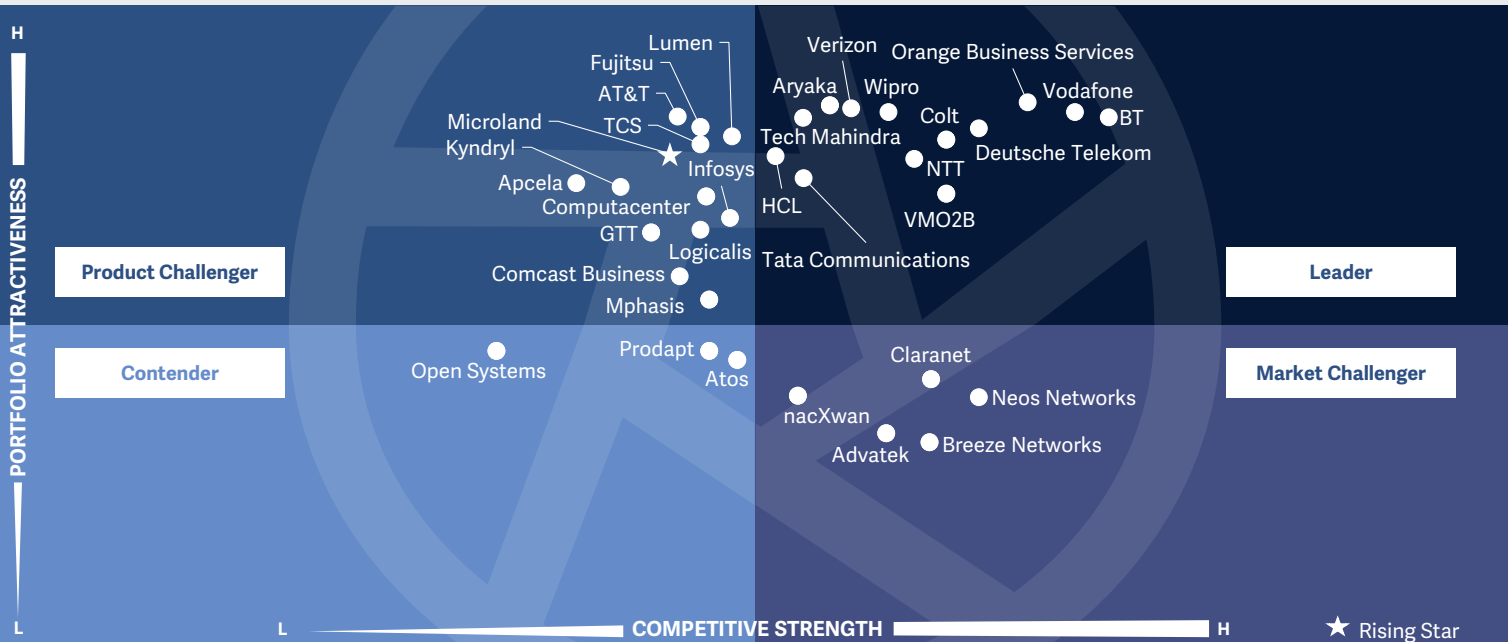


Procurement professionals should read this report to learn more about managed SD-WAN service suppliers, as payment schemes for such services are often based on SLAs and KPIs being met or levels of service and quality of service. Some providers also offer pay-as-you-consume or similar payment arrangements rather than traditional payment models.



**Network - Software Defined Solutions and Services
Managed SD (WAN) Services**

U.K. 2022



This quadrant addresses the providers of enterprise WAN (primarily enterprise SD-WAN or hybrid MPLS/IP WAN) that deliver managed solutions and associated services to enterprise clients to enable innovative and next-generation networking.

Avimanyu Basu



Managed (SD) WAN Services

Definition

SD-WAN provides the benefits of software-defined technology over traditional hardware-based networking. It is an overlay architecture with a networking foundation that is easier to manage than legacy WANs, essentially moving the control layer to the cloud and, in the process, centralising and simplifying network management. This overlay design abstracts software from hardware, enabling network virtualization and making the network more elastic. An SD-WAN architecture reduces recurring network costs, offers network-wide control and visibility, and simplifies the technology with zero-touch deployment and centralised management. The key aspect of an SD-WAN architecture is that it can communicate with all network endpoints without the need for external mechanisms or additional protocols. Suppliers have been increasingly active

as managed service providers, offering complete managed SD-WAN solutions to enterprises (including hybrid MPLS/IP or MPLS/SDN solutions) as well as white-label products to telco providers or integrators as part of their broader strategic implementations.

Eligibility Criteria

1. Scope of product/service managed WAN portfolio
2. Ability to deliver and manage all hardware and software aspects
3. Ability to rearchitect (as required) the existing MPLS-based WANs into hybrid-WAN systems
4. Management capability for the needed orchestration and control of the overall architecture
5. Flexibility and ease of introducing new services and deployments
6. Stability and roadmap planning
7. Reference customers/site volume in deployment
8. Competitiveness of offering and commercial terms



Managed (SD) WAN Services

Observations

Managed SD-WAN is a high growth segment in the U.K., followed by co-managed SD-WAN. A significant growth in integrating ever more complex security solutions (often from leading partners) has been observed this year. Many providers are now marketing SD-WAN plus solutions, which in many ways come close to full SASE implementations.

From the 111 companies assessed for this study, 33 have qualified for this quadrant with 13 being Leaders and 1 Rising Star.

Aryaka

The **Aryaka** SD-WAN services leverage the company's FlexCore global network fabric, providing the optimal combination of service-level guarantees for any site, application, cloud or user as a service.

BT

BT is one of the largest managed network service providers in the U.K., as well as globally, with widespread capabilities in technologies such as the cloud, edge, 5G and security.

colt

Colt's SD-WAN stack comes with advanced, built-in functionalities such as forward error correct and voice-channel protocol (VCP) optimisation. Colt's extensive WAN optimisation capabilities can be leveraged by its customers not only on its SD-WAN but also on its uCPE, along with the option of combining third-party virtual network functions.



Deutsche Telekom maintains partnerships with several SD-WAN infrastructure solution vendors to provide appropriate services to customers. The solutions provide advanced policy-based routing and application quality of service (QoS).

HCL

HCL makes the network transport independent, along with attributes such as centralised control, cloud-management, AIOps, global network automation orchestration, advanced analytics and carrier-neutral establishments, offered in a pay-as-you-go service model.

NTT

NTT manages multivendor network infrastructure, consisting of SD-WAN, LAN, IP telephony, application acceleration and security devices, with an added layer of predictive analytics, which scans log and event data generated by network, security and devices to identify and mitigate client network issues.



High degrees of sophisticated automation in **Orange Business Services'** flexible SD-WAN delivers future-readiness. A user-friendly, simple interface can be used by enterprises to leverage the flexibility of the network to dynamically anticipate and respond to changes in their business environment and, accordingly, migrate applications to the cloud.



Managed (SD) WAN Services



Tata Communications has been responsive to the customer requirements of aligning network evolution with the cloud and virtualization ambitions. While the company offers fully managed services to majority of its customers, it provides flexibility to them through diverse management and deployment models.



Tech Mahindra's growing clientele for managed services, in challenging areas such as campus environments and the operational technology (OT) sector, showcases a high level of trust from enterprises. The company has been making its mark with niche programs such as managing the OT LAN and delivering campus and data centre LAN managed services.

Virgin Media O2 Business

Virgin Media O2 Business provides holistic managed WAN services and, occasionally, it utilises partner capabilities in the form of partial, or whole, products and services, to complement its solutions.

Vodafone

Vodafone has been consistently outgrowing the market in the past year, especially on the SD-WAN front. The company has been winning market share from competitors, which has increased the growth rate of its SD-WAN portfolio.



Wipro addresses the challenges faced by customers with its consulting stronghold, providing support from design to implementation and spearheading the transition.

MICROLAND®

Microland's (Rising Star) vision of aligning its SD transformation towards digital transformation aligns with the enterprise requirement for digital solutions. Also, from the network management side, enterprises are facing challenges in managing large amounts of data and are seeking help to address them and deliver insights out of them.



Wipro



“As a leader in this space, Wipro understands enterprises’ perspective on adopting SD-WAN.”

Avimanyu Basu

Overview

Wipro, headquartered in Bengaluru, India, is one of the mainstay network services and solutions providers in the U.K., serving both enterprises and communication service providers (CSPs) in the region. Its network practice is a part of the infrastructure, cloud, digital operations, risk and enterprise cybersecurity (ICORE) global business line that accounts for 31 percent of its global revenue. The company added SD-WAN in its portfolio three to four years ago and has reinforced the offering to meet the latest enterprise requirements.

Strengths

Consulting-led approach:

#WANfreedom is the flagship SD-WAN offering from Wipro that takes an end-to-end, consultative approach to guide the customers in selecting the appropriate services and solutions to manage the specific use cases in their networks. Wipro’s network practice is guided by an internal team that tracks the latest available features in the SDN segment and updates the consulting team, which, in turn, offers advice on the same to the customers.

Strategic approach for a relatively new working model:

Wipro has enhanced its set of offerings in the last few years while boosting its delivery capability. Its Home is the New Branch offering, directed towards facilitating working from home, has been integrated with its #WANfreedom solution, creating the ability to manage multihome networks with a single-pane-of-glass visibility. This ensures the required level of security, along with the flexibility of working from home, is attached to the corporate connection and is expected to benefit users who have multiple devices in their office.

Caution

Several enterprises in the U.K. have been hesitant to deploy full-scale SD-WAN and instead are considering options in hybrid WAN, which are being strategically packaged and deployed by several local CSPs.





SDN Transformation Services (Consulting and Implementation)

Who Should Read This

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

The quadrant report aims to highlight the network services and solutions proficiency of providers that can handle network transformation, from consulting to implementation.

The U.K market is seeing a growing demand for SDN transformation services from third parties to shift from traditional networking to SD-WAN. A wide variety of value-added services, which include planning, solution design, project management and implementation, is being launched and offered by some of the renowned equipment providers, consultants and service providers.

Due to the global pandemic, the U.K also saw an uptake of the work-from-anywhere model, which is speeding up SaaS usage from user devices. Enterprises in the region are thus focusing on improving the application experience for users. To address their needs, providers are coming up with more flexible and hardware independent solutions.



IT and network management leaders should read this report to understand the relative positioning and capabilities of providers that can help them effectively consume managed SD-WAN services. The report also shows how the technical and integration capabilities as well as partnerships of service providers differ from the rest.



Digital transformation professionals should read this report to understand how providers of managed SD-WAN services fit their 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 providers of consulting and other SD-WAN transformation services.

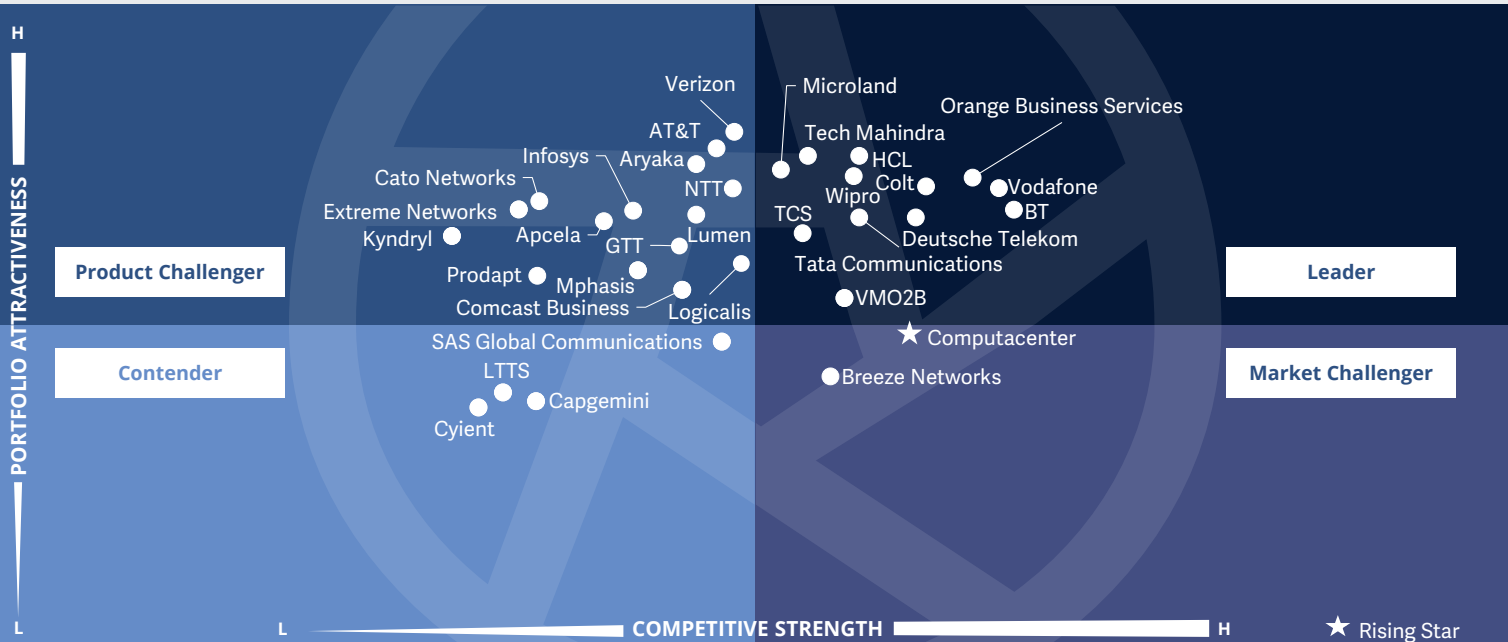


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Network - Software Defined Solutions and Services
SDN Transformation Services (Consulting and Implementation)

U.K. 2022



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

Avimanyu Basu



SDN Transformation Services (Consulting and Implementation)

Definition

Traditionally, modifications or new installations of IT devices in a data centre and its external WAN networks involved making changes to each network component, which is time consuming. This rigid architecture is increasingly being challenged by current business requirements for more agility, flexibility, automation and security — private, public, hybrid and multicloud networking, explosive mobile application usage in the workplace, IoT, Industry 4.0, big data, infrastructure as a service (XaaS) and intent-based AI and machine learning networking solutions requiring a flexible network environment that can accommodate changes quickly with minimum human intervention. SD networking provides many of these benefits compared with traditional hardware-based networking and is closely related to network function virtualization

(NFV), cloudification strategies and digital transformation undertakings. By moving the control layer to the cloud and, therefore, centralising and simplifying network management using its overlay architecture, SD-WAN is much easier to manage when compared to legacy WANs and addresses today's digital transformation-driven business needs more effectively.

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

Eligibility Criteria

1. Scope of product/service portfolio
2. Ability to deliver consulting for strategizing right through to deploying technology, including providing support in all integration and implementation areas
3. Understanding of 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

Consulting or advisory-led engagements are effectively the norm in the highly complex enterprise- and industry-specific areas of SD networking, coupled with transformation and future state technology planning, which meets enterprise business roadmap goals. Many of the providers assessed within this quadrant employ advanced methods and processes to enable smooth planning of transitions to be translated at low risk into reality, which is a major market demand.

From the 111 companies assessed for this study, 32 have qualified for this quadrant with 12 being Leaders and 1 Rising Star.

BT

BT's Cloud Connect offers direct connectivity from its MPLS network to cloud providers. It has been launched in three main locations — London, Frankfurt and Singapore. BT's technology proficiency enables bandwidths up to 5 Gbps for AWS and Azure and enhances security management of the overall customer service.

colt

Colt supports on-net, off-net, edge, key or cloud data centres with its SD-WAN offerings. The flexibility of the Colt solution enables the customers to use any hardware such as a white-box server, uCPE or vCPE. Furthermore, it is transport-agnostic, supporting the underlying MPLS, internet and wireless 3G/4G access transports.



Deutsche Telekom's fundamentals are driven by SD-WAN overlay and underlay technology of the transport network and add-on services. It has been reaping benefits from this 360-degree customer guidance not only in terms of retention and new onboarding, but also progressing to the next level of service excellence such as zero outages.

HCL

Full-stack SD-WAN implementation support with onsite and offsite delivery models makes **HCL** a go-to partner for U.K.-based enterprises. A seasoned, global workforce of network service delivery resources and SDN-certified professionals provide the necessary confidence to enterprises to engage with HCL in transformation projects.

MICROLAND®

Microland covers the entire spectrum of services, from initial design and deployment to planning and project management supported by a global ecosystem of partners, which deliver all deployments and facility services, ensuring seamless onsite installation, troubleshooting and break/fix activities.



Orange Business Services has a directed strategy for penetrating the U.K. market. A separate team targets the top 30 of the largest U.K.-based enterprises through dedicated focus on executive engagement, solution engagement, in-house marketing and account-based marketing campaign to build awareness about the company as a digital solutions specialist.



SDN Transformation Services (Consulting and Implementation)



Tata Communications' Tier-1 transport capability has enabled it to aggregate the IZO internet WAN solution and offer customised solutions to enterprises migrating from MPLS into the internet world. These enterprises have accepted the proposition of enabling SLAs on the internet.



TCS has extensive experience in building integrations across LAN, SD-WAN, WAN optimisers, data centres, wireless LAN, load balancers, devices, network security, VoIP, external networks, remote access services and reporting services. The credibility has been developed by unifying the enterprise network fabric and standardising, consolidating and virtualizing approaches and best practices.



Tech Mahindra's unique approach for transformation is directed towards delivering a network that can plug-and-play together with its components and offering it to the clients in an as-a-service model, minimising capital expenditures.

Virgin Media O2 Business

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

Vodafone

Vodafone has been executing on its strategy consistently in recent years, spanning market entry to building differentiation for expanding to new markets. As a part of its growth roadmap, Vodafone has been exploring opportunities with small and midsize enterprises, which have been increasingly adopting SD-WAN.



A network of centres of excellence enables **Wipro** to test various SD-WAN solutions under different environments and accordingly design use cases, while creating an internal score card. The score card governs the Wipro recommendations on the most appropriate SD-WAN solution for customers, according to their business requirements.

Computacenter

To ensure IT transformation initiatives and investments deliver the right business outcomes, **Computacenter (Rising Star)** provides a range of strategy and advisory services that revolve around workstyles, business cases and change roadmaps.





“Wipro is a leader in network services, ranging from ideation to implementation.”

Avimanyu Basu

Wipro

Overview

Wipro is ideally positioned in the market to leverage the high business momentum around transformation service deals, which have radically accelerated due to the COVID-19 pandemic. Its unique SDN business, including elements of SD-WAN and security, significant boosted order booking and revenue up to 40 percent.

Strengths

Exemplary transformations executed seamlessly during pandemic: Wipro has successfully completed some of the most critical transitions in the last two years, demonstrated by several success stories. Some of these revolve around enabling enterprise networks with a standardised NetOps2.0 framework, building a roadmap for future SD-LAN transformation, transitioning them to SD-WAN and providing business-as-usual support. Wipro has also supported the consolidation of global network services, where global delivery models from multiple regions were consolidated to a single, event

correlation, AIOps-driven delivery model, portraying effectual ownership throughout the transformation and domain knowledge.

IBN brought in by automation tools:

The NetOps2.0 framework has been fortified with self-healing capabilities that enable effectual management for legacy networks and VPNs. The evolution is driven by the new network bots created by Wipro. Furthermore, its proprietary cognitive digital network infrastructure (CoDNI) automation solution has driven several use cases around self-healing event correlation and suppression of events from legacy infrastructure and SD-WAN.

Caution

Many enterprises expect immediate monetary benefits after migrating to SD-WAN, and this expectation often dictates their transformation budgets. This often leads to disagreement and disappointment if the ROI milestones are not reached and tend to impact provider reputations. Wipro can engage these customers in joint proofs of concepts and consulting workshops, enabling them to visualise the true potential of SD-WAN and the time required for the ROI.





Enterprise Networks Technology and Service Suppliers

Who Should Read This

This report is relevant to enterprises across all industries in the U.K. for evaluating suppliers of SD-WAN equipment and services.

In this quadrant report, ISG lays out the current market positioning of enterprise network technology and service suppliers in the U.K. and how they address the key challenges faced by enterprises in the region.

Enterprises that are not handing over management and control of their SD networks to third parties can buy SD-WAN solutions to implement on their own in a do-it yourself (DIY) fashion. Regional providers help various enterprises across the region in enhancing efficiency optimum utilization of the network bandwidths with absolute control and flexibility, cloud-based security with

centralized control and better visibility plus cost savings of 30 to 40 percent in WAN transport costs. Due to the COVID-19 pandemic, enterprises in the U.K. are looking to upgrade their networks to enable employee collaboration and remote working.



IT and network management leaders

involved in strategy, architecture, operations and procurement should read this report to understand the relative positioning and capabilities of SD-WAN equipment and service suppliers. The report also shows how suppliers are partnering with licensed telco providers for these enterprise DIY solutions.



Digital transformation professionals

should read this report to understand how providers of managed SD-WAN services fit their 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 the direct suppliers of SD-WAN equipment and services.

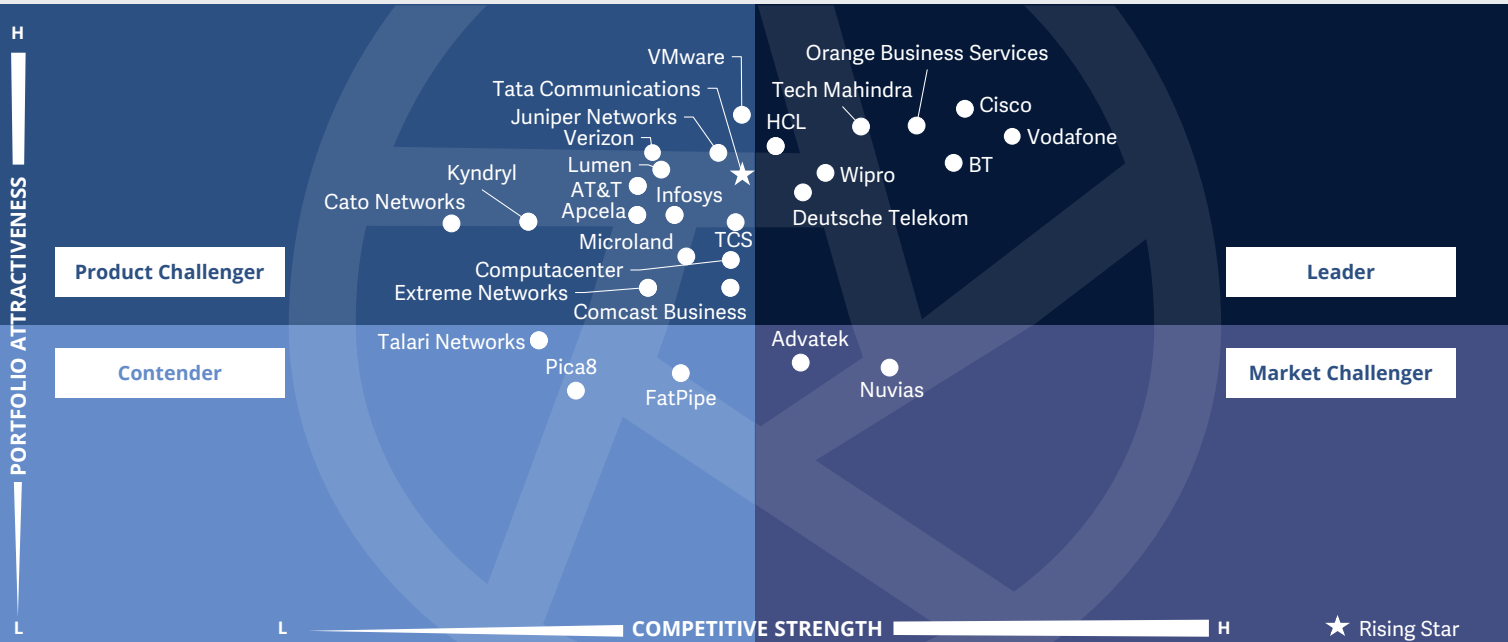


Procurement professionals should read this report to learn more about SD-WAN equipment and services suppliers because packaging and pricing models deviate from traditional networking solutions.



Network - Software Defined Solutions and Services
Enterprise Networks Technology and Service Suppliers

U.K. 2022



This quadrant analyses providers of SD networking core to edge technology and services purchased by enterprises for own operations, including SD-WAN DIY projects, management systems and end-device control, from the central core to distributed locations.

Avimanyu Basu



Enterprise Networks Technology and Service Suppliers

Definition

SD-WAN is virtual and allows enterprises to bundle multiple WAN technologies and connections such as MPLS, broadband internet, 4G/long-term evolution (LTE) and ethernet and provision them as overall bandwidth. SD-WAN determines the path for transmitting data packets and the medium to be used; if a connection has excess load, another path is taken automatically. The virtual connections consist of multiple paths that are used simultaneously, along with core network functionality. One of the key aspects of the architecture is that it can communicate with all network endpoints without the need for external mechanisms or additional protocols, allowing ease in branch and remote set-up and management, together with secure enterprise policy-driven communications.

Suppliers have been active in directly selling SD-WAN solutions to enterprises for their DIY (non-managed) implementations and are increasingly partnering with licensed telco or service providers in this space. In addition, many suppliers are focused on specific discrete parts of the overall network (for example, OSS/BSS) and supply just these components or similar discrete, partial solutions.

Eligibility Criteria

1. Product portfolio coverage, focus areas, completeness of modular delivery and integration with broader solutions
2. Ability to deliver equipment and service to customers, including requisite training
3. Ability to deliver value-added services within a modern enterprise environment, using software defined methods
4. Understanding of overall market area, technology environment and evolutions, and contributions to the same
5. Scope of partnerships and offerings and management capability of a customer project
6. Openness of offering to avoid vendor lock-in
7. Reference customer or solutions post proof of concept or pilot in commercial deployment
8. Competitiveness of offerings and types of commercial terms such as shared risk models



Enterprise Networks Technology and Service Suppliers

Observations

Supply of solutions or partial solutions directly to enterprises for their management and operation is still a high growth segment in the overall market. However, the trend is towards supply of fully managed, or increasingly, co-managed solutions, with some previous DIY operators moving back towards suppliers via the co-managed route. This quadrant is saturated with all supplier types, from carriers and service providers to system integrators, all focusing on extensive partner ecosystems.

From the 111 companies assessed for this study, 27 have qualified for this quadrant with 9 being Leaders and 1 Rising Star.

BT

BT's strategy in NFV/uCPE is directed towards helping customers scale in virtualization, offering them choice and expanding on the use cases. It has added capabilities not only in terms of supported hardware platforms for NFV and uCPE, but also in terms of scale, extending coverage by more than 100 countries.

Cisco

Cisco is one of the prominent suppliers for up-to-the-minute network technologies, which span the core, from the data centre to the edge for U.K.-based enterprises and telecom service providers.



Deutsche Telekom has an inherent telecom industry-influenced DNA. It has a steadfast relationship with large-scale enterprises from multitude of sites. As a result, its experience in customising network policies for complex environments is unparalleled. Accordingly, the company can effectually handle large-scale client requirements associated with network automation in a distributed campus.



HCL's Nucleus helps network administrators set policy permissions, bandwidth limits and routing rules for applications from LAN to WAN, thereby bringing in better levels of control on the flow of traffic and ensuring high-quality application performance.



Orange Business Services focuses on providing high-quality customer experience instead of offering the ultimate cheapest price point. The company retained its value proposition during the pandemic, strengthening internal functions by running field operations, avoiding furloughs, and acquiring white licenses and partners in the U.K. to deliver the promised services.



Tech Mahindra delivers network transformation in a cloud-oriented model where it brings the global network itself as a service through a network of PoPs. The PoPs are built with carrier-neutral facilities, providing the option of bringing its own backbone to the enterprises, which can reinforce their existing core network.



Enterprise Networks Technology and Service Suppliers

Vodafone

Vodafone has worked on evolving its strategy around underlay connectivity, SD-WAN, SD-branch, security at the edge and cloud-native networks. It has also decided to shift from SD-Branch to integrated LAN, Wi-Fi and SD-WAN capabilities using a single toolset for furthering the management of customer networks.



Wipro creates a concept-to-commercialisation blueprint to reduce the time to market for new technologies. This is fortified by investments such as CloudGenix (for SD-WAN) and Moogsoft (AIOps-powered platform for event correlation).



Customer experience has been a core part of **Tata Communications'** (Rising Star) strategy, which extends beyond technology to drive overall business resilience. Using these value propositions as key growth levers, Tata Communications envisages itself as the digital ecosystem enabler for enterprises to adopt to the new world of communications through network services.



Wipro



“Wipro has experience across different kinds of services in every layer of the enterprise network.”

Avimanyu Basu

Overview

Wipro is a global IT, consulting and outsourcing company based in Bengaluru, India. Its Digital Network Services practice is one of the fastest-growing divisions in the company, employing a workforce of seasoned network engineers and consultants.

Strengths

Frameworks and accelerators testing boundaries of network innovation:

Wipro implements several solutions using the NetFactory assembly line approach for network rollouts. The approaches are reinforced with tools such as multidomain orchestrator (MDO), which is an accelerator that enables the integration of services across multiple platforms. Furthermore, with proprietary solutions such as SD-DC and Secure Wi-Fi that are created with key partners, Wipro’s experience-led SLAs are key differentiators in the market that address relevant customer requirements.

Advancing development of IBN:

The MDO executes enterprise-wide automation to enable the client to progress along its IBN ambitions, together with policy and service provisioning, cross-domain service assurance, and end-to-end visibility support.

Unlocking the potential of start-ups:

Wipro invests in niche technology start-ups for future value propositions. The company retains a dedicated fund, enabling it to have a first look into the new trends, the challenges around it and the enterprise-level competencies.

Caution

Wipro has been progressing steadily towards the network of the future. However, the company is yet to productise and standardise its advances associated with self-healing capabilities or self-organising networks.





Edge Technologies and Services

Who Should Read This

This report is relevant to enterprises across all industries in the U.K. for evaluating providers that deliver technologies and services into the highly important network edge space. These cover hardware and software, management or reporting tools, and applications and other services associated with the network edge.

In this quadrant report, ISG lays out the current market positioning of edge technology and service providers in the U.K.

Following the COVID-19 pandemic, enterprises in the U.K. are increasingly seeking digital solutions to recover, rebuild and reinvent their operations. They are beginning to think more carefully about how their traffic is stored and transported. Keeping traffic at the edge will play a major role in digitalization.



IT and network management leaders involved in strategy, architecture, operations and procurement should read this report to understand the relative positioning and capabilities of providers that can help them effectively consume mobile network services.



Digital transformation leaders should read this report to understand how providers of mobile network services fit their digital transformation initiatives and how they compare to one another. They will also learn about the partnership ecosystems that help enterprises integrate 5G into their digital transformations.

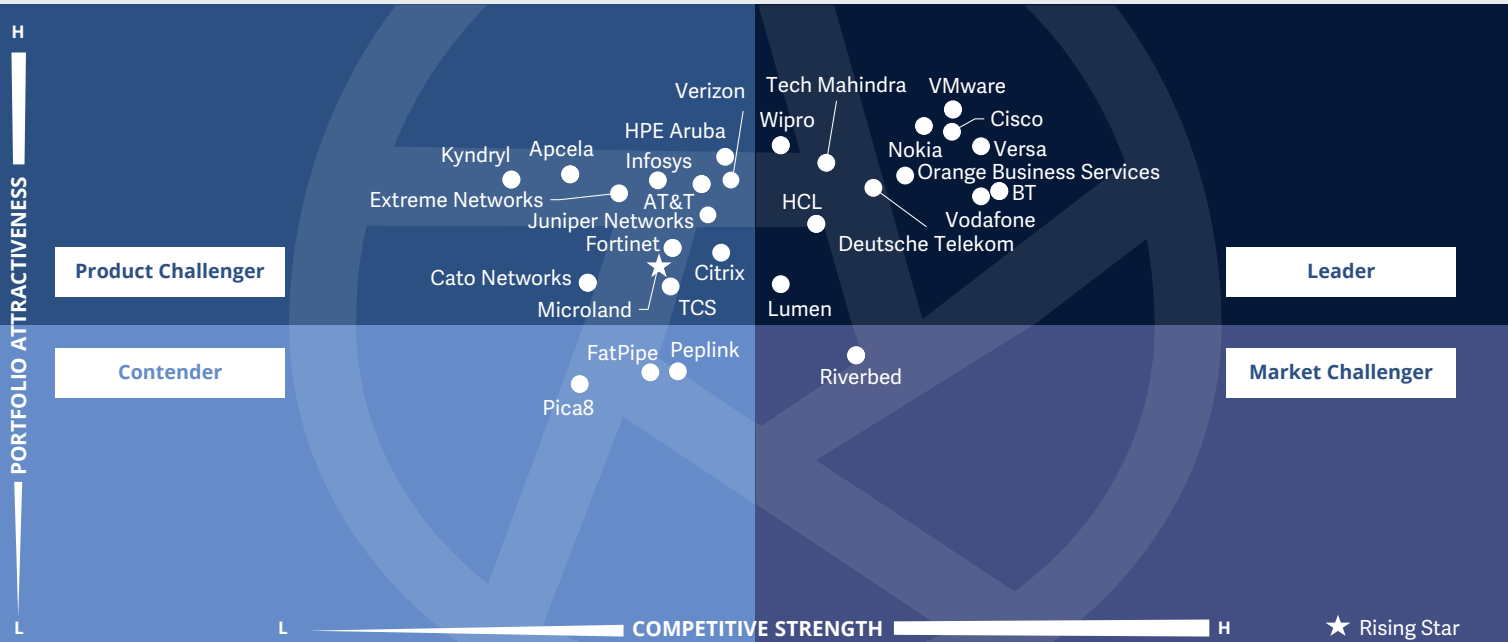


Cybersecurity leaders should read this report to understand the current state of security capabilities associated with the providers of mobile network services delivery. With the addition of sensors and other connected devices to enterprise infrastructures, enterprises should be aware of their service providers' approach to security.



Network - Software Defined Solution and Services
Edge Technologies and Services

U.K. 2022



This quadrant analyses providers delivering technologies across hardware and software, management or reporting tools and applications, and those offering services associated with edge network technology to enterprises across multiple verticals.

Avimanyu Basu



Definition

Edge technologies, services and computing are current trends in the IoT and IIoT world. With the localised processing of data, security and privacy have improved because any breach can be managed locally and not passed onto the WAN or cloud and, thus, back to central enterprise to defend. In IoT edge computing and networking, data from various connected devices of the IoT ecosystem is typically collected in a local device, analysed on the network, and then transferred to the central data centre or cloud. As the number of connected devices have increased exponentially, the volume of data generated is multifold. Thus, interim processing is required to ensure cost reduction and increased efficiency. This, in turn, places great importance on efficient and software-driven edge capability networks and connectivity capabilities.

Edge components may be managed in the same manner as core and SD-WAN components. SD capabilities include branch and edge functionalities, along with all customer premises equipment (uCPE or vCPE) and associated SD mobile networks (SDMN) and SD-LANs that include both wireless (SD-WLAN) or mobile (SD-WMLAN), as well as IoT or IIoT sensors and devices or control/security devices.

Eligibility Criteria

1. Product portfolio coverage, focus areas and completeness of modular or area solutions, together with integration into broader solutions
2. Ability to deliver requisite training and education to clients, if required, with POC or studio
3. Understanding of overall market, technology environment and evolutions and contributions to the same, together with industry-specific knowledge and experience
4. Scope of partnerships and offerings and management capability of disparate providers and solutions within a customer project
5. Reference customer or solutions in POC or pilot deployments or commercial deployments
6. Competitiveness of offerings and types of commercial terms



Observations

Edge networking (edge compute, network edge, branch edge and remote edge) has witnessed continuous growth and has accelerated exponentially during the global pandemic, with the rise of remote working and today's common hybrid working models. The expansion of IoT, SD-WLAN or SD-MWLAN makes this quadrant one of the fastest accelerating in terms of both overall year-over-year growth and enterprise proliferation across industry verticals.

From the 111 companies assessed for this study, 28 have qualified for this quadrant with 12 being Leaders and 1 Rising Star.

BT

BT presents significant capabilities in the edge, coupled with its 5G capabilities.

Cisco

Cisco is the one-stop shop for all edge requirements of its clients in the U.K. The company has made its portfolio more versatile with the inclusion of features supporting third-party applications.



Deutsche Telekom's decentralised cloud architecture replicates and synchronises with the private cloud, while the ERP software runs at the sites on edge computers and virtualized SD-WAN machines, parallelly. The solution, in the long term, can replace MPLS with internet.

HCL

With enterprises being compelled to leverage cloud capabilities and more people working from home, **HCL** has bolstered its investments to explore possibilities with automation of deployment, configuration, visibility troubleshooting and security-related processes.

LUMEN®

To meet customers' changing expectations, **Lumen** is investing in the development and delivery of new experiences which, in turn, can deliver frictionless, self-service engagement with the Lumen Platform across the customer journey.

Nokia

Nokia uses its service provider routing expertise and capabilities to enable disparate networks, which is the main requirement for futuristic networks. These capabilities drive high-quality services for legacy data centres, enterprise branches, virtualized branches in the public or private cloud, and streamlined connectivity in public and private clouds.



Edge innovations are considered as one of the most important parts of a network transformation or managed services deal, and **Orange Business Services** is suitably positioned in the U.K. market to address these requirements.



Edge Technologies and Services

Tech Mahindra

Tech Mahindra's edge offerings such as SD-WAN and uCPE are offered as part of the larger ENaS offering, which can be combined under a portfolio or offered separately. Its customers evolve their businesses into digital enterprises, while maintaining a personal touch that is entrenched in its core principles.

Versa Networks

Apart from selling directly to the enterprises, **Versa Networks** has a wide network of VARs, SIs, resellers, master agents, etc., to offer its products. Thus, the customer is provided with the flexibility of choosing the associated services and opting for customised offerings.

VMware

VMware has an expansive chain of resellers and partners in the U.K. in the system integrator and telecom service provider segment, which helps boost its market penetration.

Vodafone

Vodafone presents a balanced footprint of dedicated and hybrid MPN, each representing a share of 40 to 45 percent of its implementations and the remaining on virtual.



Wipro has invested in creating a gig economy around unique intellectual property, filing patents and creating easy to deploy, templatised solutions for enterprises. This makes it a partner of choice for the new-age edge technologies.

MICROLAND®

Microland (Rising Star) provides comprehensive implementation support to its remote and onsite teams. Additionally, its partner ecosystem delivers onsite services. Together with partners and clients' IT/OT teams, the company ensures end-to-end delivery of the solutions.



Wipro



“Wipro’s engineering and network proficiency empower it to deliver edge services.”

Avimanyu Basu

Overview

Wipro, based in Bangalore, India, presents a holistic set of edge services and solutions driven by in-house developments and partnerships. The company’s edge capabilities combine its engineering proficiency and network services dexterity to deliver off-the-shelf and customised solutions for enterprise clients in the U.K. Proprietary offerings such as BLUE align with Wipro’s IoT and edge computing stratagem for a holistic infrastructure perspective.

Strengths

Dynamizing customer edge infrastructure with boundaryless universal edge (BLUE), driven by NetBox: Its NetBox solution is offered as a part of BLUE, which enables NFV of the hardware as per customers’ requirements. The NetBox can be presented as an extension to the existing network providing basic functionalities such as routers, switches and firewalls. Furthermore, Wipro has reinforced it with business applications, with an orchestration layer on top of it.

Identifying specific use cases to accelerate the adoption of NetBox:

Most 5G powered functionalities are run as business applications within the NetBox solution at the site. The ease in platform management and other features have reduced the implementation time from 14 weeks to 4 weeks. This is also appropriate for situations in a few industries, where restrictions in the supply chain have created hindrances for enterprises to acquire new hardware. The immediate requirements are met with NetBox while the customer plans a better mode of procurement.

Caution

A significant part of Wipro’s network edge engagements is telco oriented. Thus, the number of direct-to-enterprise requests for proposals is relatively low.





Secure Access Service Edge (SASE)

Who Should Read This

This report is relevant to enterprises across all industries in the U.K. for evaluating service providers of enterprise SASE.

In this quadrant report, ISG lays out the current market positioning of SASE services providers in the U.K. and how they address the key challenges that enterprises face in the region.

Customers, business models and technology require increasingly more agile responses. The speed of change is increasing as business models are digitized and transformed. MPLS, SD-WAN, SASE and the principles of SD everything (SDx) are challenges for customers.

The pandemic has further encouraged the need for digitization and has driven enterprises to upgrade their networks security for enabling employee collaboration and remote working. The work-from-home model will stay, with the growing need for cloud-based systems, enhanced security, SDN, and virtual collaboration via enterprise communication and collaboration.



IT and network management leaders should read this report to understand the relative positioning and capabilities of providers that can help them effectively consume SASE services. The report also shows how the technical and integration capabilities as well as partnerships of service providers differ from the rest.



Digital transformation professionals should read this report to understand how providers of SASE services fit their 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 providers of consulting and other SASE services delivery.

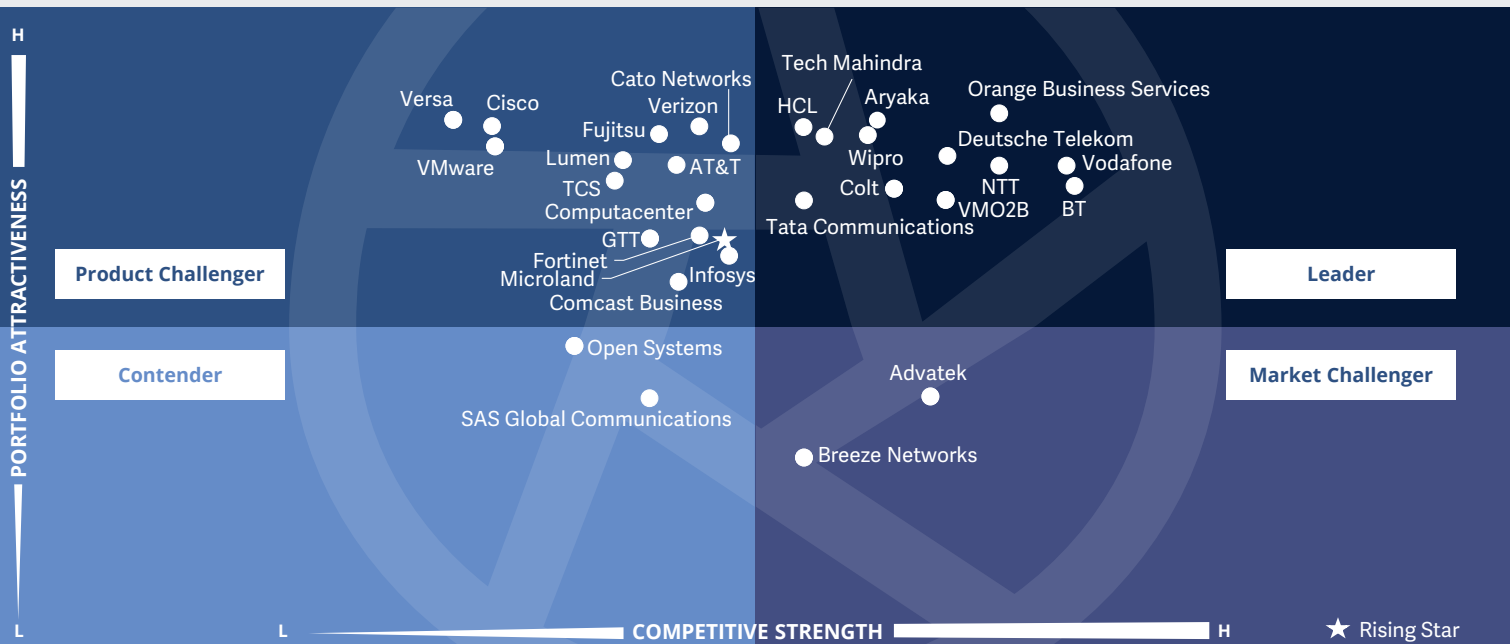


Procurement professionals should read this report to learn more about SASE service suppliers, as payment schemes for such services are often based on SLAs and KPIs being met, including levels of service and quality of service. Some providers also offer pay-as-you-consume or similar payment arrangements rather than traditional payment models.



Network - Software Defined Solutions and Services
Secure Access Service Edge (SASE)

U.K. 2022



This quadrant analyses SASE solutions offered to enterprises as overarching integrated networks and security solutions from the enterprise core to edge, fully integrated with other enterprise business systems as appropriate for enterprises' roadmaps.

Avimanyu Basu



Secure Access Service Edge (SASE)

Definition

Enterprises are increasingly focused on migrating their ICT and network operations into the cloud, while enhancing security in all touchpoint areas. Software defined networks have been proven to assist with this by reducing complexity and enabling a reduced risk migration to single or multicloud environments for enterprises. Network security has become a major point of concern across business units and enterprises, in line with the changes within modern networks and the expectations of full security from core to edge in all networks. Security as a service or enhanced DIY security has been and continues to be a rapidly growing area. However, many enterprises perceive such solutions to not cover all possible touchpoints or evolve fast enough.

Considerable proposal, design and concept modelling work has been done in the area of integrated secure enterprise networks (ISEN), which has evolved into the currently accepted term in this space. Major components of SASE include SD-WAN, cloud access security broker (CASB), next generation firewall (NGFW) and firewall-as-a-service (FWaaS), zero trust network access (ZTNA), and secure web gateways (SWG), encompassing secure and integrated access from the data centre (which may encompass network function virtualization (NFV)), through to branch or edge, including SD-LAN or its wireless or mobile variant.

Suppliers in this area have been increasingly active as advisors or consultants for implementation, supplying complete PoC, pilots and solutions to enterprises. Large vendors and managed network services providers have also been actively involved in offering SASE.

Eligibility Criteria

1. Product portfolio coverage, focus areas, completeness of solutions, fully integrated broader solutions linking to data centres or other enterprise IT applications and systems
2. Membership or affiliation (including inputs) with global SASE technical and trade groups
3. Ability to enable clients to reuse the existing network and ICT solutions, instead of just rip and replace
4. Ability to deliver training and provide both POC or studio simulations and testing for a client
5. Industry-specific knowledge and experience mapped to client type
6. Scope of partnerships and offerings and management capability for the needed orchestration within a customer project
7. Reference customer or solutions in pilot moving into commercial deployment
8. Competitiveness of offerings and types of commercial terms



Secure Access Service Edge (SASE)

Observations

The definition of integrated secure enterprise networks (ISEN) has been around for several years but has been made more popular by the coined term, SASE, more recently. SASE lacked agreement about its constituent components for some time but has now reached consensus, thereby bringing it from the pilot and proof-of-concept domain into many actual commercial rollouts, backed by strong solution offerings from highly reputable providers. It is one of the highest growing areas of the overall enterprise transformation and networks business currently and is expected to accelerate in terms of growth in the coming years.

From the 111 companies assessed for this study, 31 have qualified for this quadrant with 12 being Leaders and 1 Rising Star.

Aryaka

Aryaka combines innovative network, security and management capabilities to an integrated SD-WAN and SASE architecture, which is built for flexibility and superior customer experience. These eliminate the complexities, skillset gaps, delayed timelines and support uncertainties that are ingrained in DIY and telco-based stitched-together solutions.

BT

As a part of its SASE strategy, **BT** combines its experience in network underlay and SD-WAN capabilities with network and cloud-based security capabilities. Consistently, its network orchestration platforms enable provisioning and change through a single policy, control and event data framework.

colt

Colt's remote access feature based on Versa SASE builds on the company's SD-WAN service to allow remote access without compromising network security, integrity and performance,



Deutsche Telekom's SASE architecture is vendor agnostic and merges SD-WAN into a seamless and secure environment with full network connectivity for cost-effective maintenance and flexibility.

HCL

HCL's ingrained engineering DNA, combined with its network and cybersecurity proficiency adds value to the SASE approach, which considers multiple architecture parameters to derive the appropriate SDx strategy.

NTT

NTT enables a resilient security posture to protect assets against dynamic security threats with SASE services. By monitoring the network, endpoints, and public or hybrid cloud environments, NTT presents a complete view of customer's security posture.



Tata Communications' route to the SASE segment is through its transparent messaging to customers around interweaving network and security elements. This is done through in-built virtualized firewalls, virtualized UTM capabilities in the SD-WAN platform, and cloud-based security solutions such as zero-trust access platform, DDoS mitigation, secure web gateway and CASB.



Secure Access Service Edge (SASE)

Tech Mahindra

Tech Mahindra offers a full spectrum of services from consulting to managed implementation in the arena of SD-WAN and SASE. The services span consulting, transport productization for telcos, assessment and business case development services, and industrial network transformation consulting.



Orange Business Services offers an advisory-led engagement practice and a strong portfolio of managed SD-WAN solutions. The network strategy, covering AI orchestration and its NextGen Hub, together with Flexible SD-WAN and its cyber defence team, enables its SASE offering.

Virgin Media O2

Virgin Media O2's SD vision intertwines with its SASE approach, which revolves around providing the best user experience and agility to customers. The company has been working towards delivering its services and solutions in an OTT-like model, which is not restricted by the underlay.

Vodafone

Vodafone's Super PoPs consist of few physical components, and these are gradually becoming virtualized to support new-age offerings such as SASE. Consistently, the company will use virtualization services from CNFs offered by providers such as Equinix and Digital Realty.



Wipro provides assessment and advisory services to help customers migrate from traditional remote access architecture to zero-trust-based dynamic services, which enable the users to access corporate resources securely.

MICROLAND®

Microland's (Rising Star) managed SD-WAN and SASE services are delivered with the right level of flexibility for customers to optionally own the product, tools and telecom links as per their requirements.



Wipro



“Wipro’s robust SASE capabilities, combined with SD-WAN, indicate a holistic offering.”

Avimanyu Basu

Overview

Bengaluru-based Wipro added a dedicated SASE offering to its portfolio in 2021, which is now an integral part of its SD-WAN capability, going to the market together as a holistic offering. Work from any device has been one of the drivers for Wipro to interweave its network services with SASE offerings. The concept can involve a corporate managed device, a personal device and IoT devices. Providing a seamless working experience to the user has been the highest priority for Wipro.

Strengths

End-to-end security capability for work-from-any-device users: Wipro’s proficiency in providing secure access, using an agent or web access and leveraging APIs for new applications, creates the differentiation. As the user reaches the layer where the security services are hosted, secured internet access or remote access is enabled through components such as cloud access security broker (CASB), threat isolation, cloud application security, data security and identity security.

End-to-end support in deploying SASE and being compliant with an appropriate cybersecurity posture:

Wipro engages its set of proprietary platforms, accelerators and bots, which work together to provide complete visibility from device to the application, dynamically reducing the risk and initiating action in case of a suspected threat. Services involving DNS security, web proxy and defining an identity depict a flow, which is based on the kind of compliance it is reporting. The holistic offering reduces the complexity of the process, improving the overall cybersecurity posture.

Caution

Wipro has limited direct penetration in the British public sector. Upscaling this can enable the company to break the barriers of network security innovation.





Appendix

The ISG Provider Lens 2022 – Network — Software Defined Solutions and Services analyzes the relevant software vendors/ service providers in the global market, based on a multi-phased research and analysis process, and positions these providers based on the ISG Research methodology.

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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 June 2022, 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

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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

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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

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*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.

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