ISG Provider Lens™

Network — Software Defined Solutions and Services

A detailed analysis of the software-defined enterprise network, SASE and edge market

BROCHURE | JANUARY 2024 | GERMANY, U.S., U.K. AND APAC

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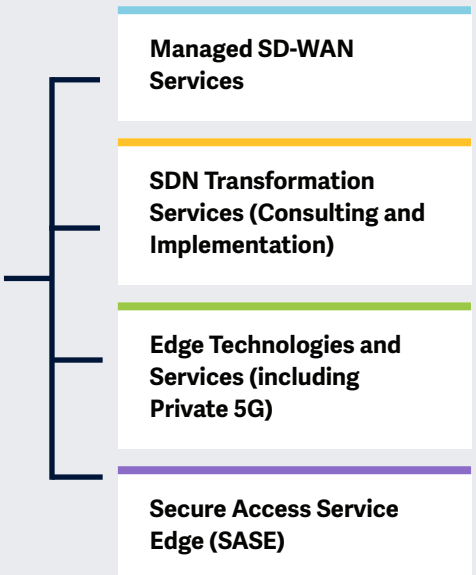
Introduction

This ISG Provider Lens™ study, Network – Software-Defined Solutions and Services 2024, analyzes multiple network offerings related to enterprise networks and software-defined networking. These include managed software-defined wide area network (SD-WAN) services offered to enterprises. These fully managed services leverage the latest technologies and methodologies that are structured within a modern contractual framework. In addition, this IPL study looks at consulting and advisory, supply along with implementation support, in the SD-WAN area, and the providers focused on such offerings. 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 private mobile network delivery via 4G/5G technologies and the service offerings related to these segments. In addition, the study examines secure access service edge (SASE), which includes SD-WAN within its domain. SASE is an overarching, secure and fully integrated network environment for businesses.

This IPL may be used in conjunction with the planned Managed Network Services IPL due for release in Q4, focused on non SD-networks managed delivery.

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.

Analysis of SD-networks, edge and SASE solutions and services 2024



Simplified Illustration Source: 2024

Scope of the report

The ISG Provider Lens™ study, Network – Software-Defined Solutions and Services 2024, offers the following to business and IT decision-makers:

- Transparency of the strengths and weaknesses of relevant providers and their offerings.
- Differentiated positioning of providers in each quadrant based on their competitive strengths and portfolio attractiveness.
- Focus on different markets, including Germany, the U.K., the U.S. and APAC.

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

Definition

This quadrant examines the providers of enterprise WAN (primarily enterprise SD-WAN or hybrid MPLS/IP WAN) that deliver managed solutions and services. These include additional associated services such as fixed or mobile infrastructure and cloud-based software services directed toward streamlining enterprises' network operations. These may include new installations, replacement or upgrade installations, or hybrid cloud pathway installations accounted as networks. Regardless of the blend of network hardware and software, these services will be offered to enterprises as a service, entirely managed by the service provider.

SD-WAN offers the benefits of software-defined technology over traditional hardware-based networking. It is an overlay architecture with a networking foundation that is easily manageable compared to legacy WANs, essentially moving the control layer to the cloud and centralizing and simplifying network management.

This overlay design abstracts software from hardware, enabling network virtualization and making the network more flexible. An SD-WAN architecture reduces recurring network costs, offers network-wide control and visibility, and simplifies the technology with zero-touch deployment and centralized 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) and 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 effectively replace** (as required) MPLS-based WANs with SD-WAN or hybrid systems
4. **Complete orchestration and management capabilities** for the needed control of the new SD-WAN network
5. **Proven capability** in seamlessly implementing new services and networks in commercial deployments
6. **Comprehensive and stable roadmap**, allowing updates as required
7. Reference customer/site **volume in deployment**
8. **Competitiveness** of offerings and types of commercial terms

SDN Transformation Services (Consulting and Implementation)

Definition

This quadrant analyzes providers of advisory or consulting and other services (for example, planning) associated with delivering software-defined networking and SD-WAN to enterprises, from initial advisor consulting to service delivery and rollout, including testing.

Modern businesses require more agility, flexibility, automation and security across delivery areas and business domains, including 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 requiring a flexible network environment that can accommodate changes quickly with minimum human intervention. Software-defined 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. However, it presents challenges in handling both legacy and transformed environments, highlighting the lack of skilled programmers or NetOps personnel in certain enterprise settings.

Many enterprises require independent advice or trusted consulting before making major organizational changes and prefer advisors who are not associated with the final network delivery.

Suppliers in this area are increasingly active as advisors or consultants for implementation 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 service providers are also actively involved in offering SD-WAN packages in this area, independently or as a part of consortium deals.

Eligibility Criteria

1. **Scope** of product/service portfolio
2. **Ability** to provide consultation, from strategizing phase to technology deployment, and 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. **Reference customers** or solutions post-pilot or **commercial deployment**
6. **Competitiveness** of offering and types of commercial terms

Definition

This quadrant analyzes vendors that deliver technologies across hardware and software, management or reporting tools, and applications and services associated with edge network technology, including private software-driven 5G solutions, to enterprises.

Edge technologies, services and computing are current trends in IoT and IIoT, where connections are often through private 5G networks, via an SD-orchestration, for speed and flexibility. These are becoming increasingly important among many enterprises.

With the localized processing of data, security and privacy can be improved as any breach can be managed locally and not passed on to the WAN or cloud and, thus, back to the central enterprise to defend. In IoT edge computing and networking, data from various connected devices in the IoT ecosystem is typically collected in a local device, analyzed on the network, and then transferred to the central data center or cloud.

As the number of connected devices has increased exponentially, the volume of data generated is multifold. This, in turn, places high importance on efficient and software-driven edge capability networks with SD-driven connectivity capabilities.

Edge components can be managed in the same manner as core and SD-WAN components. Software-defined capabilities comprise branch and edge functionalities, along with all customer premises equipment (uCPE or vCPE) and associated software-defined mobile networks (SDMNs) and SD-LANs that include wireless (SD-WLAN) and mobile (SD-WMLAN) networks, private 5G networks, and IoT sensors and devices or control/security devices.

Eligibility Criteria

1. **Product portfolio coverage**, focus areas, and completeness of modular or area solutions
2. **Ability to** integrate into broader solutions
3. **Understanding of the 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 customers** or solutions in commercial deployments
6. Competitiveness of offerings and **types of commercial terms**

Definition

This quadrant analyzes SASE solutions that are offered to enterprises as overarching integrated networks and security solutions from the enterprise core to the edge. These include solutions moving into pilots and those already deployed commercially.

Enterprises are increasingly focusing on migrating their ICT and network operations to the cloud, while enhancing security in all touchpoint areas. Software-defined networks have proven to efficiently assist with this by reducing complexity and facilitating risk-reduced migration to single or multicloud environments for enterprises. Network-integrated security has been evolving continuously, with the inclusion of components such as proactive detection and response solutions, zero-trust networking, and identity-based security and authentication This is often referred to as SSE when added to an existing network. Many providers supply a combination of identity-based authentication, SASE and network security to create a holistic, secure-by-design approach for the network of the future.

The 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). These encompass secure and integrated access from the data center (which may include network function virtualization [NFV]) 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, providing complete pilots and solutions to enterprises. Prominent vendors and managed network service providers are also actively involved in offering SASE.

Eligibility Criteria

1. **Product portfolio coverage, focus areas, completeness of solutions**, fully integrated broader solutions linking to data centers 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 rip and replace
4. **Ability to deliver training and provide testing** for clients
5. **Industry-specific knowledge** and experience mapped to the client type
6. **Scope of partnerships and offerings** and management capability for the needed orchestration within a customer project
7. **Reference customers or solutions** in commercial deployment
8. **Competitiveness of offerings** and types of commercial terms

Quadrants by Region

As part of this ISG Provider Lens™ quadrant study, we are introducing the following four quadrants on Network – Software-Defined Solutions and Services 2024.

Quadrant	Germany	U.K	U.S.	APAC*
Managed SD-WAN Services	✓	✓	✓	✓
SDN Transformation Services (Consulting and Implementation)	✓	✓	✓	✓
Edge Technologies and Services (including Private 5G)	✓	✓	✓	✓
Secure Access Service Edge (SASE)	✓	✓	✓	✓

*APAC excludes Japan, South Korea, Taiwan and China while it includes Australia/New Zealand, Singapore, Malaysia, Indonesia, Thailand, Vietnam and Philippines.

Schedule

The research phase falls in the period between **January** and **February 2024**, during which survey, evaluation, analysis and validation will take place. The results will be presented to the media in **June 2024**.

Milestones	Beginning	End
Survey Launch	January 11, 2024	
Survey Phase	January 11, 2024	February 09, 2024
Sneak Previews	May 13, 2024	
Press Release & Publication	June, 2024	

Please refer to the link to view/download the ISG Provider Lens™ 2024 research agenda

Access to Online Portal

You can view/download the questionnaire from here using the credentials you have already created or refer to instructions provided in the invitation email to generate a new password. We look forward to your participation!

Research Production Disclaimer:

ISG collects data for the purposes of writing research and creating provider/vendor profiles. The profiles and supporting data are used by ISG advisors to make recommendations and inform their clients of the experience and qualifications of any applicable provider/vendor for outsourcing the work identified by clients. This data is collected as part of the ISG FutureSource™ process and the Candidate Provider Qualification (CPQ) process. ISG may choose to only utilize this collected data pertaining to certain countries or regions for the education and purposes of its advisors and not produce ISG Provider Lens™ reports. These decisions will be made based on the level and completeness of the information received directly from providers/vendors and the availability of experienced analysts for those countries or regions. Submitted information may also be used for individual research projects or for briefing notes that will be written by the lead analysts.

ISG Star of Excellence™ – Call for nominations

The Star of Excellence™ is an independent recognition of excellent service delivery based on the concept of "Voice of the Customer." The Star of Excellence™ is a program, designed by ISG, to collect client feedback about service providers' success in demonstrating the highest standards of client service excellence and customer centricity.

The global survey is all about services that are associated with IPL studies. In consequence, all ISG Analysts will be continuously provided with information on the customer experience of all relevant service providers. This information comes on top of existing first-hand advisor feedback that IPL leverages in context of its practitioner-led consulting approach.

Providers are invited to nominate their clients to participate. Once the nomination has been submitted, ISG sends out a mail confirmation to both sides. It is self-evident that ISG anonymizes all customer data and does not share it with third parties.

It is our vision that the Star of Excellence™ will be recognized as the leading industry recognition for client service excellence and serve as the benchmark for measuring client sentiments.

To ensure your selected clients complete the feedback for your nominated engagement please use the Client nomination section on the Star of Excellence™ website.

We have set up an email where you can direct any questions or provide comments. This email will be checked daily, please allow up to 24 hours for a reply.

Here is the email address:
ISG.star@isg-one.com

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ISG Provider Lens Advisors Involvement Program

ISG Provider Lens offers market assessments incorporating practitioner insights, reflecting regional focus and independent research. ISG ensures advisor involvement in each study to cover the appropriate market details aligned to the respective service lines/technology trends, service provider presence and enterprise context.

In each region, ISG has expert thought leaders and respected advisors who know the provider portfolios and offerings as well as enterprise requirements and market trends. On average, three advisors participate as part of each study's quality and consistency review team (QCRT). The QCRT ensures each study reflects ISG advisors' experience in the field, which complements the primary and secondary research the analysts conduct. ISG advisors participate in each study as part of the QCRT group and contribute at different levels depending on their availability and expertise.

The QCRT advisors:

- Help define and validate quadrants and questionnaires,
- Advise on service provider inclusion, participate in briefing calls,
- Give their perspectives on service provider ratings and review report drafts.

ISG Advisors to this study

Yadu Singh

Partner

John Lytle

Director

Jon Harrod

Director

Invited Companies

If your company is listed on this page or you feel your company should be listed, please contact ISG to ensure we have the correct contact person(s) to actively participate in this research.

* Rated in previous iteration

Accenture*
Advanced Info Services (Thailand)
Advatek
Airtel
Akamai Technologies
Apcela*
Arelion
Arista*
AT&T*
Atos
Aussie Broadband
Axians
Axiata Group
Bechtle
BECOM
Big Network
Black Box
Blaze Networks
Breeze Networks
BT*
Cambium Networks
CANCOM*
Capgemini
Cato Networks*
C-C Solutions
CDW
Celcom Axiata
Centrify*
Citrix*
Claranet
Clavister
Cloudaron Group Berhad
Coevolve
Colt*
Comcast Business*
Computacenter*
Conscia
Controlware
Cradlepoint
Crown Castle*
CTM
Cyient
Damovo
Data#3
Datacom
Deutsche Telekom
Dicker Data
DiGi Malaysia
DXC Technology*
EdgilityOS
Ekinops
Elisa
Empired
Enea
Ericsson
Evolving Networks
Extreme Networks*
FatPipe*
flexiWAN*
Forcepoint

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* Rated in previous iteration

Fortinet*	KCOM Group	NEC	Plenary Networks (Australia)
Fujitsu	Kyndryl*	Neos Networks	Prodapt
Globalgig	Lancom	Netconsulting	PT Telekomunikasi Indonesia
Globe (Philippines)	Logicalis*	Netskope	Qualitest
Graphiant	LTTS	Nexion	Redcentric
GTT*	Lumen*	Nomios	Riedel Networks
HCLTech*	M1	NTT*	Riverbed
HPE Aruba*	Macquarie Telecom	Nuvias	Sangfor
hSo	Maxis	Open Systems*	SAS Global Communications
Huawei	Megaport	Optus	Sify Technologies
IBM	MetTel*	Orange Business Services*	Singtel
Interactive Pty	Microland*	PCCW	SKY business
Intuitive Systems and Networks (ISN)	Mphasis*	Peplink	Softchoice
Itera	nacXwan	Pica8*	Spark New Zealand
Juniper Networks	NBN	PLDT (Philippines)	StarHub

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* Rated in previous iteration

Stream Networks
Superloop Limited (Australia)
Tata Communications*
TCS*
Tech Mahindra*
Telefónica
Telekom Malaysia
Telenor
Telstra
T-Mobile*
TNF
TNNet
TPG Telecom (Aus)
True Corporation (Thailand)
Turnium
Verizon*
VMO2B
Vocus
Vodafone
Windstream
Wipro*
Zayo
Zeetta
Zensar*

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™

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ISG

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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.

ISG Provider Lens™

JANUARY, 2024

REPORT: NETWORK — SOFTWARE DEFINED SOLUTIONS AND SERVICES