

Network — Software Defined Solutions and Services

A research report comparing provider strengths,
challenges and competitive differentiators

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Report Author: Dr. Kenn D Walters

Acceleration toward ubiquitous secure end-to-end SD networks across all business segments

Networks and software-defined solutions and services encompass many technological topics, business coverage areas, organizational functions, and business processes and methods. These solutions are closely related to the digitalization, enhanced security and cloudification trends of enterprises globally. This ISG Provider Lens™ study examines multiple network service and solution offerings related to software-defined networking (SD-networks) in the U.S. These include managed SD-WAN and associated core and mobility technologies and service offerings related to these segments, transformation services, edge technologies and secure access service edge (SASE). Regional analysis of the global SD-WAN market shows the U.S. as the largest shareholder, with revenue reaching

approximately \$2.6 billion in 2022. The U.S. alone consumes more than 30 percent of the global SDN solutions and services market as of 2023. Therefore, service providers in the U.S. play a vital role in defining the global SD-WAN market. Key factors driving the U.S. market growth include system integrators' (SI) offerings and the increasing SD-WAN adoption by traditional service providers and SMEs in line with the digitalization and multicloud implementation of large enterprises across industry verticals. As a technologically advanced country and the biggest shareholder in the global SD-WAN market, the dominance of the U.S. providers is becoming stronger due to the increasing adoption of technologies across corporate networks such as big data, edge computing, enhanced security, SASE, mobility (including private 5G networks), IoT, hybrid cloud and platforms, ML and AI.

Enterprises are evaluating and implementing various means to decrease costs while increasing their agility, flexibility, competitiveness, security, delivery structures, remote working and continuity practices leading to improved CX/UX. Running SD-WAN

SD-networks —
a **foundational**
solution for
current needs
and an enabler
for future needs



implementations as an overlay allows the utilization of existing routers and switches or universal/virtualized customer premises equipment (u/vCPE). SD-WAN can also handle various connection types and divide and protect the traffic moving via the WAN. Many enterprises are increasingly opting to procure SD-WAN as part of a complete SASE solution, often consumed as a fully-managed SASE service from a managed service provider. SASE is the inflection point where enterprise networking and security fully converge.

Some of the primary factors driving rapid changes in the U.S. enterprise networks are summarized below.

Increasing flexibility and functionality while simplifying management:

Enterprises increasingly focus on improving network resource and process integration, automation, orchestration and management. By moving its control layer to the cloud, SD-WAN can operate and be managed in real-time via one-touch or single-pane-of-glass through policy and automation. This enables seamless application and network resource

additions without hardware implementation to meet business and user goals efficiently and securely.

Reducing risk in the cloud and multcloud migrations: Enterprises are increasingly migrating their IT and network operations onto the cloud. SD networks assist with this by reducing complexity and enabling a reduced-risk migration to single or multcloud environments for enterprises.

Increasing security across networks, including cloud-based networks: Network security has become a major concern across business verticals as enterprises seek security from core to edge in an enterprise network. This need for security is met by enabling SD-networks which become vital in the risk-free provisioning of cloud-based and hybrid networks. It is foundational to simplified full SASE deployments.

SME SD-WAN market growth: Primary research shows an accelerating volume of SMEs entering markets across the U.S., with this segment expected to grow rapidly over the next few years. SMEs have a higher probability of having

distributed workforces and will often rely on cloud-based solutions for communication and collaboration. By utilizing low-cost SD-WAN solutions as overlays and access points into cloud and security, providers can reduce their monthly costs while leveraging multiple links to low-cost local Internet lines under an SD-WAN single-pane-of-glass control.

Consuming managed or co-managed service while improving CX: Allowing clients to consume network services via modern payment terms and conditions can significantly enhance the client experience. SD-networking-enabled solutions can be delivered as a fully managed or co-managed service, thus reducing overall cost and implementation risk. SD-networking-enabled services assist in retaining or enhancing enterprises' ability to respond quickly to customer inquiries and rapidly provide (often automatically) required new services. Improving CX has become crucial for many enterprises.

A foundational solution to enable innovative technologies and solutions: Digitalization and other innovations, such as intent-based networks, AI- and ML-driven solutions,

services and systems, rapid hotspot provisioning and data flow allowance, self-healing networks, intelligent edge, edge computing, SD-LAN connectivity and management and SASE require the flexibility and abilities of SD networks to be utilized fully and drive solutions to their full potential while de-risking their implementations.

The study's primary findings demonstrate that most telecommunication service and network service providers, as well as SIs, together with their significant partner ecosystems, have an impressive portfolio of SD-WAN and other SD network solutions. These are partial or function-specific solutions to complete end-to-end SD-WAN or SD network solutions, with many of them based on industry type or business vertical. Many enterprises have introduced advanced SD-network-based technological innovations, such as intent-based networks, that use ML and AI interactions and control or edge intelligence and computing solutions. Most enterprises require mobility and remote location solutions such as SD-LAN or SD-wireless or wireless and mobile LAN (SD-WLAN or SD-WMLAN), sometimes



coupled with enterprise LTE/5G private/public solutions. Movement and change in enterprise networking are further driven by the transition many enterprises are making to the cloud and multicloud environments. Cloud environments are well supported by SD networks from enterprise core to edge and integration of SASE solutions across all enterprise touchpoints.

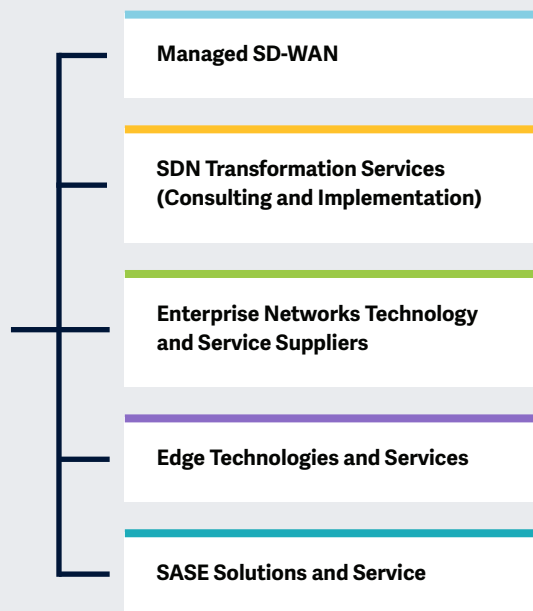
This study considers the changing market requirements and provides a consistent overview of its segments. It also gives concrete decision-making support to help evaluate and assess the offerings and performance of providers.

SD-networking forms the basis for enabling, simplifying and de-risking the implementation of next-generation networks, including multicloud and SASE migrations.



Analysis of Enterprise Networks Solutions and Services 2023.

Simplified Illustration Source: ISG 2023



Definition

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

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





Sweet Spot

Orange Business Services

Overview

Orange Business is headquartered in Paris, France and operates in 65 countries. It has more than 29,000 employees across over 100 global offices. In FY22 the company generated €7.9 billion in revenue, with IT Services as its largest segment. Orange Business delivers a strong portfolio of SD-WAN solutions. Orange Business announced new investments in core areas, including SD-WAN, in February 2023.

Key Provider Capabilities

- **Leader in ISG's Network - Software-Defined Solutions and Services study:** Orange Business was named a Leader for Germany, the U.K. and the U.S. in the 2023 IPL report for managed SD-WAN quadrant.
- **Transforming core activities:** Orange Business is increasing investments in secure virtualized networks such as SD-WAN, secure access service edge (SASE) and 5G. It is also developing a modular service platform with the Orange Group and Orange Cyberdefense to implement a secure digitalization and automation program.
- **Flexible SD-WAN:** Orange Business offers a fully automated, intelligent network with on-demand virtualized services centrally

orchestrated for end-to-end performance and control. It provides a flexible and agile way to adapt the enterprise network to business needs based on best-of-breed technologies. The solution provides reliable performance, high security, multiple connection types, cost control and high-quality end-user experience for business-critical applications.

- **Industry-specific advisory and agnostic transformation solutions:** Orange Business' extensive partner ecosystem and strong internal, industry-specific advisory abilities allow the delivery of enterprise-specific, vendor-agnostic solutions.

Benefits Delivered

Orange Business collaborates with its clients to identify the best customized SD-WAN solutions and deliver:

- Best-in-class managed SD-WAN across industries
- Flexible and advanced solutions
- Higher ROI
- Low-risk implementations and operations
- High user satisfaction through managed services



Orange Business Services

Sweet Spot

Orange Business is refocusing its efforts and investments around automation, cloud, digitization and SD networks to address end-to-end business network transformation challenges. The company utilizes its managed services in SD-WAN to ensure long-term client flexibility, agility and success and includes options for future SASE transformations.

Some key strengths brought to bear include:

- Orange Business' professional services and best practices enable clients to adopt sustainable solutions based on standardized business processes.
- Its managed services facilitate reduced support costs and uninterrupted services throughout the transformation to advanced SD-WAN and beyond.
- It has a vast reference base of successfully delivered SD-WAN transformation to managed SD-WAN globally, utilizing the flagship flexible SD-WAN solution portfolio.
- Orange Business has a strategic initiative to focus on transforming and revitalizing its enterprise business. The company aims to become the leading network and digital integrator by building on its connectivity, cloud and cybersecurity strengths.
- The company uses its international OpenLab platforms to test new technologies with its customers and partners to simulate end-state results and ensure successful outcomes.
- Orange Business strategically plans on accompanying customers across sectors from a consultative phase up to a running solution, enabling key digital services and services integration with the managed SD-WAN solution.
- Orange Business' flexible SD-WAN supporting SASE is a fully automated, intelligent network with on-demand virtualized services. The solution is centrally orchestrated, providing reliable performance, improved security, support for multiple connection types and integration with SASE architecture.

Future roadmap

Orange Business strategically intends to advance its managed SD-WAN offering while enhancing more future-facing solutions, including:

- Enhanced AI orchestration and the introduction of its Next Gen Hub with flexible SD-WAN inclusion
- Introduction and mass deployment of its managed secure access services and offering clients full SASE or partial security upgrade solutions
- Integrating security-driven networking technology into its Evolution Platform, reinforcing security and networking convergence while optimizing performance. With built-in integration and automation, this seamless approach ensures real-time service updates and exceptional CX.





Appendix

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

Lead Author:

Dr. Kenn D Walters

Editors:

Poulomi Nag

Data Analyst:

Hema Gunapati

Quality & Consistency Advisors:

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

Project Manager:

Ankur Taneja

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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 March 2023, for providers who actively participated as well as for providers who did not. ISG recognizes that many mergers and acquisitions have taken place since that time, but those changes are not reflected in this report.

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

The study was divided into the following steps:

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



Author & Editor Biographies

Lead Author



Dr. Kenn D Walters
Distinguished Lead Analyst

Dr. Kenn Walters is a highly skilled senior executive with over 40 years of experience in directing and managing major transformational technology projects, research and development programs, as well as extensive experience within providers and in global industry research and management consultancy. For ISG, Kenn has written over 100 articles as a distinguished lead analyst for ISG Insights in areas such as digital transformation, cloud managed networks, SD networking, SDN and digital disruptors.

He and is a Distinguished lead analyst and author for multiple regions in the Provider Lens™ reports, (<https://isg-one.com/research/isg-provider-lens>) in such areas as Networks – Software Defined Networking, Digital Business Software and Services, Contact Center as a service, and CC CX. He holds a BSc, MSc, and Ph.D. in computer science and communications systems.

IPL Product Owner



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

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

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



iSG Provider Lens™

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

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

iSG Research™

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iSG

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JUNE, 2023

REPORT: NETWORK — SOFTWARE DEFINED SOLUTIONS AND SERVICES