

Network— Software Defined Solutions and Services

A research report comparing
provider strengths, challenges
and competitive differentiators

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SD network adoption is accelerating across German enterprises of all segments and sizes

Networks and software-defined solutions and services encompass many technological topics, business coverage areas, organizational functions and business processes and methods. They are closely tied to digitalization, enhanced security and cloudification trends of enterprises globally, with regional differences in requirements, as in Germany, having a low overall impact on their full functionality. This ISG Provider Lens™ study examines multiple network service and solution offerings related to software-defined networking (SD networks) in Germany. These offerings include managed SD-WAN and associated core and mobility technologies and services related to these segments, transformation services, edge technologies and secure access service edge (SASE).

Like many regions worldwide, German enterprises have been reeling under the impact of local and global environmental laws, the aftereffects of the global pandemic and high energy supply costs arising from the situation in Russia. They are now seeking innovative solutions to drive higher operational efficiency.

Some key drivers of the current market growth in Germany, like that in many other geographies, are the system integrators' (SI) offerings in addition to the SD-WAN adoption by traditional service providers, together with SMEs' increasing adoption of SD-WAN across all industry verticals. The increasing adoption of technologies by German enterprises into corporate networks such as big data, edge computing, enhanced security, SASE, mobility (including private 5G networks), IoT, hybrid cloud and platforms, together with greater inclusion of ML and AI, are other factors.

Enterprises across Germany are evaluating and implementing various means to decrease costs while increasing their agility, flexibility, competitiveness, security, delivery structures and remote working and continuity practices, leading to improved CX/UX. A large part of

Managed and
co-managed
**SD network
deployments** and
SASE adoption are
accelerating



this challenge is associated with technology use and the transformation of established processes and traditional management practices.

In SD-WAN implementations, running as they do as an overlay, existing routers and switches, or virtualized or universal customer premises equipment (vCPE or uCPE) may be retained and re-used. SD-WAN can handle various connection types and divide and protect the traffic moving via the WAN.

Many enterprises are increasingly procuring SD-WAN as part of a full SASE solution, often consumed as a fully managed SASE service from a managed services provider. SASE is the inflection point where enterprise networking and security fully converge. Germany has a strong presence of experienced industry advisors that understand not only the region, technology and enterprise scale but also enterprise requirements, business goals and industry segment implications. The region has a plethora of competent and experienced advisory and provider companies offering such services.

In Germany, some of the primary factors driving rapid changes in enterprise networks include those summarized below.

Increasing flexibility and agility while simplifying management: Enterprises are increasingly focusing on improving the integration, automation, security, orchestration and management of network resources and processes. This has evolved to encompass SD- networking with single-pane-of-glass management and orchestration systems.

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

Increasing security across networks, including cloud-based networks: Network security has become a major concern across business units and enterprises, with an expectation of full security from core to edge in the enterprise network. Enabling SD networks meets this expectation, which becomes vital in the risk-

free provisioning of cloud-based and hybrid networks and is foundational to simplified full SASE deployments.

Consuming managed or co-managed services while improving CX: Client experience can be enhanced by allowing clients to consume network services via modern payment terms and conditions. SD networking-enabled solutions can be supplied as a fully managed or co-managed service, thus reducing overall costs and implementation risks. SD networking-enabled services help enterprises retain or enhance their ability to respond quickly and seamlessly to customer inquiries and rapidly provide (often automatically) new services as required. Such CX improvement has become crucial to many enterprises.

Fully managed versus DIY or co-managed services in Germany: Germany lags behind the U.S. and APAC in terms of adopting fully managed services. This lag accounts for a significant percentage of the overall market consumption of enterprise networks in Germany being DIY. Many enterprises prefer adopting a DIY solution, where the enterprise

manages the entire network solution or co-manages a solution that enables network and security operations to be shared between the provider and the enterprise.

SME SD-WAN market power: Germany has a strong mid-sized enterprise market segment, which is rapidly adopting SD-WAN. SMEs have a higher probability of a distributed workforce and will often rely on cloud-based solutions for communication and collaboration. Using lower-cost SD-WAN solutions as overlays and access points to the cloud and security providers is fast becoming ubiquitous. However, not all larger SD-WAN providers cater to this market segment in Germany.

De-risking innovative technologies and solutions in German enterprise: Digitalization and innovations, such as intent-based networks, AI/ML-driven solutions, services and systems, intelligent edge and edge computing, SD-LAN connectivity and management, as well as SASE, require SD networks to be used fully while de-risking their implementations.



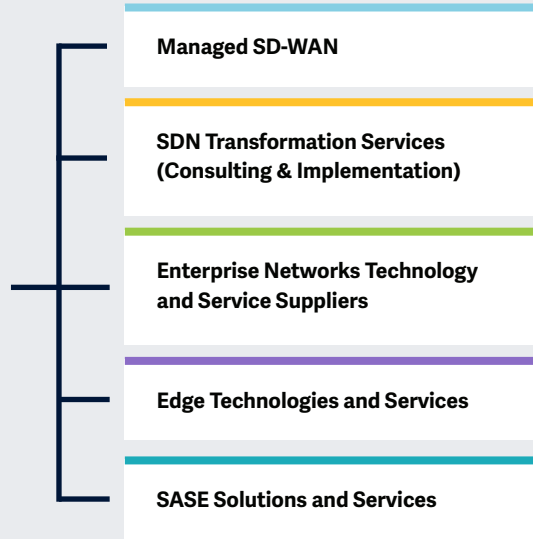
In Germany, most telecommunication service and network service providers, SIs and their significant partner ecosystems have an impressive portfolio of SD-WAN and other SD network solutions. These range from partial or function-specific solutions to complete end-to-end SD-WAN or SD network solutions, with many solutions based on the industry type or business vertical and the integration of SASE solutions across all enterprise touchpoints. Some enterprises have introduced advanced SD network-based technological innovations. This includes intent-based networks, that use ML or AI interactions and control or edge intelligence and computing solutions, together with mobility and remote location solutions, such as SD-LAN or SD-wireless sometimes coupled with LTE/5G private/public solutions. This study considers the changing market requirements in Germany and provides a consistent market overview of these segments. It also gives concrete decision-making support to help clients evaluate and assess the offerings and performance of providers.

SD networks are foundational in future-safe, cloud-first enterprise networks and advanced security integrations, including full SASE or security service edge (SSE) deployments



Analysis of Enterprise Networks Solutions and Services 2023

Simplified Illustration Source: ISG 2023

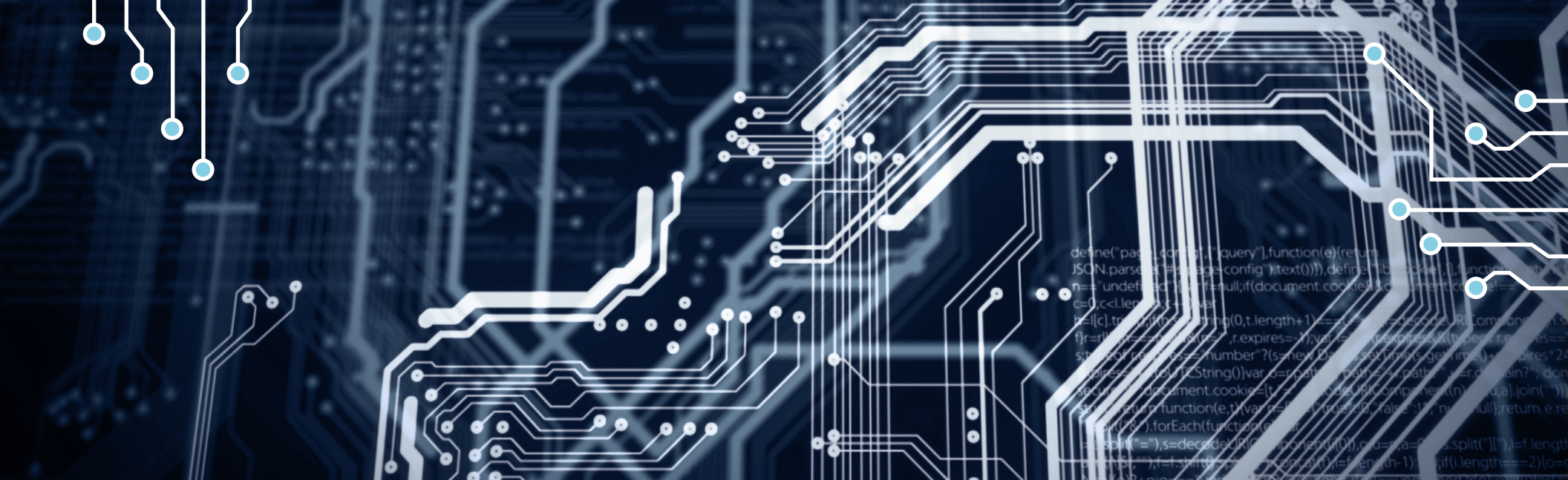


Definition

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 German 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 April 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 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 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



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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 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](#).

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For more information, visit isg-one.com.





JULY, 2023

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