ISG Provider Lens™

Network-Software-Defined Solutions and Services

A research report comparing provider strengths, challenges and competitive differentiators.

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QUADRANT REPORT | JULY 2024 | GERMANY

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SD-networks adoption still accelerating including mid-market, with SASE closing fast in Germany

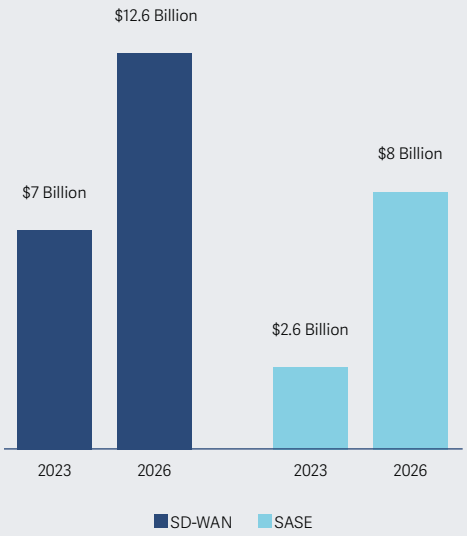
The realm of networks, software-defined solutions and services encompasses various technological subjects, industry and organizational areas and business process methods. These are all closely linked to the overall transformation inherent in enterprise digitization, advanced security, and cloud/multicloud adoption trends in enterprises in Germany and worldwide.

There are, however, some regional variations in requirements and the speed of full adoption around the globe, such as in Germany. These variations may have a limited impact on the overall penetration and adoption rates of solutions, although not necessarily on the overall functionality deployed. This ISG Provider Lens™ study examines various network services and solutions related to software-defined networking (SD-networks), specifically in Germany. These offerings include managed SD-WAN, network transformation services, edge technologies (including associated SD-LAN and private 5G mobility technologies and services) and secure access service edge (SASE).

Like in many other regions across the globe, German businesses have faced challenges stemming from local and global environmental regulations and environmental, social, and governance (ESG) guidelines and regulations, the ongoing aftereffects of the global pandemic (including hybrid work or work from anywhere), and rising energy and transport costs due (in large part) to the ongoing situation in Russia and the fighting in Ukraine. As a result, they are now actively seeking innovative solutions to improve overall enterprise operational efficiency and to remain equal in their competitive positioning with regard to enterprises that have already adopted the latest technologies while also ensuring enhanced security and business continuity.

Managed and co-managed SD network deployments form the majority of German implementations.

Relative Growth of Global SD-WAN and SASE Market, Q1 2023 - Q4 2026



Source: ISG software-defined networks research

A few notable drivers of the current market growth in Germany, as seen in many other locations, are the offerings from systems integrators (SI) and their partner ecosystems. These offerings are in direct competition to SD-WAN offerings by traditional network service providers and network solution consulting houses. Furthermore, the vital small and midsize enterprises (SMEs) across industries are accelerating their SD-WAN and edge solutions adoption, including SD-LAN and lower-cost branch solutions, while looking at and adopting correctly scaled SASE solutions. German enterprises are also highly focused on incorporating very secure and advanced technologies into their corporate networks, including big data, edge computing, enhanced security, SASE, mobility (such as private 5G networks), IoT, hybrid cloud and platforms, as well as significant automation, analytics, and ever-more sophisticated artificial intelligence (AI) within the corporate networks' domains.

Throughout Germany, companies are implementing different strategies to reduce costs while enhancing flexibility, competitiveness, security, remote working capabilities and business continuity practices. This ultimately leads to an improved customer experience (CX) and user experience (UX). One major challenge in achieving these goals lies in using technology to transform established processes and management practices, including potentially moving away from the in-house operated (DIY) model to the fully managed or co-managed delivery models.

Implementing SD-WAN as an overlay on existing routers and switches allows enterprises to make the most of their current infrastructure while considering enhancements or replacements over time, in a phased manner, rather than doing a total rip-and-replace enterprise network to branch equipment replacement. SD-WAN can handle various types of connections, can segment and secure traffic moving through the wide area network (WAN) and report upon results or operation in a modern and simplified manner compared with many legacy enterprise networks. In particular, if SD-WAN is consumed as a managed or co-managed service, the monitoring and reporting can be highly automated and mapped against agreed business SLAs and KPIs. In addition, utilizing SD-WAN allows for easier on-ramp transition into the cloud and full cloud network adoption.

Many enterprises are now also correctly including SD-WAN as part of a complete SASE solution, often obtaining it as a fully managed service from a managed service provider. SASE is where enterprise networking and advanced security fully converge, and SASE or SD-WAN with security service edge (SSE) is becoming the fastest-growing segment for new implementations. Organzations in Germany benefit from experienced industry advisors who deeply understand the region, technology, enterprise scale, business objectives and industry-specific implications. A wide range of mature, competent and experienced advisory and provider companies in the region offer such services, and they are backed by powerful global brand-name partners within their ecosystems.

In Germany, several key factors are driving rapid changes in enterprise networks. These factors can be summarized as follows.

Executive Summary

Adopting managed or co-managed services: SD-networking-enabled solutions can be provided as fully managed or co-managed services, reducing overall costs and implementation risks. These services also enable enterprises to respond quickly and seamlessly to customer inquiries and automatically provide new services as needed, thus enhancing CX and offloading stress and complexities on internal users, thus improving the UX. Germany remains slightly behind the U.S. and APAC regions in fully adopting managed services. Much of the German enterprise network market is still transitioning from DIY solutions toward co-management with a provider or the fully managed state.

Enhancing monitoring and security across networks: Network security remains a major concern for German businesses and enterprises that expect and demand comprehensive advanced security measures from the core to the edge of their networks. SD-networks serve as a foundation for easier migration by adding SSE or a full SASE transformation. SD-WAN allows prioritization and improvement for network resource integration, automation, security, orchestration and management. This includes adopting SD-networking with centralized management and orchestration systems and simplified single-pane-of-glass reporting to which predictive analysis and AI can be applied.

Cloud and multicloud migration risk mitigation: German enterprises are accelerating their IT and network operations migration to cloud or multicloud environments. SD-networks play a crucial role in enabling enterprises to make a smooth and secure migration to single or multicloud environments. By leveraging SD-WAN, businesses can navigate the cloud adoption complexities with ease, minimizing potential disruptions and ensuring a seamless transition.

Power of the SME SD-WAN market: Germany's powerful SME market is rapidly embracing SD-WAN technology. These SMEs often have dispersed locations, branches, workforces and hybrid work models and rely significantly on cloud-based collaboration solutions. Lower-cost SD-WAN solutions are widely used to connect to cloud and security providers, often via provider partner ecosystems. Not all major SD-WAN providers cater to this market segment in Germany; however, many are still focusing on the large enterprise market segment, thus allowing a lucrative business area for local providers and system houses.

Transformation with business risk reduction: Many German enterprises are more risk averse than similar companies within the U.S. or APAC when it come to new technologies, unless they can be ring-fenced or de-risked by means of a proven solution being employed before implementation. Spending long periods of time testing solutions to reach previous and traditional levels of comfort may impact competitive positioning in today's fast-paced world. The utilization of SD network utilization is now well documented for minimizing implementation risks with advanced technology areas such as intent-based networks, automation, analytics, ever-more-complex AI- and ML-driven solutions, rapid hotspot provisioning and data flow allowance, self-healing networks, intelligent edge, edge computing, SSE, SASE, and SD-LAN and mobile LAN such as LTE/5G connectivity and management.

Customer and user experience improvements: SD-networking underpinned solutions in customer service customer experience (CCCX), or self-service manners can be delivered in fully managed or co-managed service types. Such delivery results in cost and complexity reduction and decreased implementation risk within the enterprise, while delivering highly advanced solutions. This can rapidly improve CX and UX, which helps reduce staff churn and increase staff loyalty.

The study's primary findings indicate that Germany has a wide range of SD-WAN and other SD network solutions offered by telecommunication service providers, network service providers, SIs and their partner ecosystems. These solutions include comprehensive end-to-end SD-WAN or SD network solutions. They are tailored to different industries and business verticals and can additionally incorporate SASE solutions across all enterprise touchpoints.

Executive Summary

This study examines the evolving market demands in Germany in 2024 and offers a comprehensive overview of these segments. It also provides valuable guidance to aid clients in evaluating and assessing the offerings and performance of providers.

Software-defined networking (SD-networking) delivers advanced and business-required services, facilitates migrations and reduces the risks associated with migration and deployment of multicloud and SASE solutions. SD-WAN must be considered as a vital step in any such transition.

Provider Positioning

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	Managed SD-WAN Services	SDN Transformation Services (Consulting and Implementation)	Edge Technologies and Services (including Private 5G)	Secure Access Service Edge (SASE)
Accenture	Leader	Leader	Product Challenger	Leader
Apcela	Not In	Product Challenger	Not In	Not In
Arista	Not In	Contender	Not In	Not In
Aryaka	Not In	Not In	Not In	Product Challenger
AT&T	Product Challenger	Not In	Not In	Product Challenger
Axians	Product Challenger	Leader	Rising Star ★	Product Challenger
Bechtle	Contender	Product Challenger	Product Challenger	Not In
BT	Leader	Product Challenger	Product Challenger	Leader
CANCOM	Product Challenger	Leader	Leader	Leader
Capgemini	Not In	Product Challenger	Not In	Product Challenger

Provider Positioning

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	Managed SD-WAN Services	SDN Transformation Services (Consulting and Implementation)	Edge Technologies and Services (including Private 5G)	Secure Access Service Edge (SASE)
Cato Networks	Not In	Product Challenger	Product Challenger	Not In
C-C Solutions	Not In	Not In	Contender	Not In
Colt	Leader	Not In	Not In	Leader
Comcast Business	Market Challenger	Not In	Not In	Market Challenger
Computacenter	Product Challenger	Leader	Leader	Leader
Controlware	Not In	Product Challenger	Contender	Contender
Damovo	Product Challenger	Product Challenger	Product Challenger	Product Challenger
Deutsche Telekom	Leader	Leader	Leader	Leader
DXC Technology	Product Challenger	Product Challenger	Product Challenger	Product Challenger
Extreme Networks	Not In	Leader	Leader	Not In

Provider Positioning

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	Managed SD-WAN Services	SDN Transformation Services (Consulting and Implementation)	Edge Technologies and Services (including Private 5G)	Secure Access Service Edge (SASE)
GTT	Leader	Not In	Not In	Not In
HCLTech	Product Challenger	Product Challenger	Product Challenger	Product Challenger
HPE Aruba	Not In	Not In	Market Challenger	Not In
Infosys	Product Challenger	Product Challenger	Product Challenger	Product Challenger
Kyndryl	Product Challenger	Product Challenger	Product Challenger	Not In
Logicalis	Rising Star ★	Product Challenger	Leader	Rising Star ★
Lumen Technologies	Product Challenger	Not In	Not In	Product Challenger
NTT DATA	Not In	Market Challenger	Not In	Not In
Open Systems	Contender	Contender	Product Challenger	Contender
Orange Business	Leader	Leader	Leader	Leader

Provider Positioning

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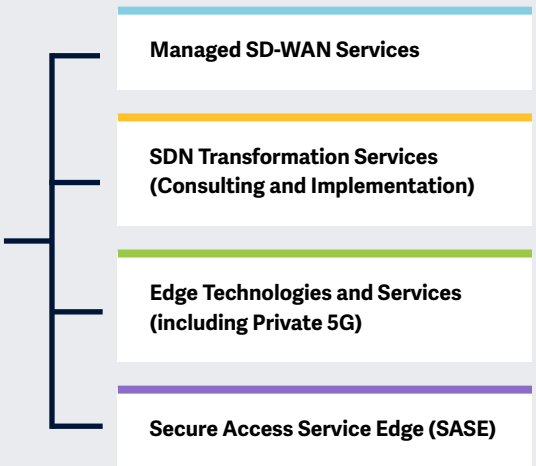
	Managed SD-WAN Services	SDN Transformation Services (Consulting and Implementation)	Edge Technologies and Services (including Private 5G)	Secure Access Service Edge (SASE)
Riedel Networks	Leader	Not In	Not In	Not In
Tata Communications	Product Challenger	Not In	Not In	Product Challenger
TCS	Not In	Product Challenger	Product Challenger	Product Challenger
Tech Mahindra	Product Challenger	Leader	Leader	Product Challenger
Verizon Business	Leader	Not In	Not In	Leader
Vodafone	Leader	Leader	Product Challenger	Leader
Wipro	Leader	Leader	Leader	Leader

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

Simplified Illustration Source: ISG 2024



Definition

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 report 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.

Scope of the Report

This ISG Provider Lens™ quadrant report covers the following four quadrants for services/ solutions: Managed SD-WAN Services, SDN Transformation Services (Consulting and Implementation), Edge Technologies and Services (including Private 5G) and Secure Access Service Edge (SASE).

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

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

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.

Provider Classifications

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

- **Midmarket:** Companies with 100 to 4,999 employees or revenues between$20 million and $999 million with central headquarters in the respective country, usually privately owned.
- **Large Accounts:** Multinational companies with more than 5,000 employees or revenue above $1 billion, with activities worldwide and globally distributed decision-making structures.

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

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

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.

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.

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 Section

This report is relevant to enterprises across all industries in Germany for evaluating providers offering managed network services (primarily enterprise SD-WAN or hybrid multiprotocol label switching [MPLS]/IP WAN).

The quadrant aims to spotlight providers' expertise in enterprise network services and solutions, empowering enterprises to select the right partner for network transformation.

The shift toward cloud-based applications and services necessitates robust and flexible connectivity. Enterprises need to consider managed and co-managed SD-WAN solutions that not only enhance the performance of cloud applications but also offer seamless network operation, efficient troubleshooting and robust security without increasing their internal network or IT operations team size or expanding their team's knowledge base radically.

Security continues to be paramount in the realm of SD-WAN. Seamlessly integrating SD-WAN and security addresses the evolving needs of modern enterprises, providing agility, scalability and robust protection. Enterprises are keen to expedite the security policies and expect providers to accelerate the delivery of advanced security functions such as security service edge (SSE). They also demand robust security features such as encryption, threat detection and access controls to safeguard their data and networks.

Networking professionals should read this report to know the detailed landscape, integration capabilities and partnerships of providers that can help effectively manage SD-WAN service consumption.

Digital transformation professionals should read this report to understand how managed SD-WAN service providers align with their enterprise transformation journey and how they compare against each other.

Cybersecurity professionals should read this report to understand how providers use technologies to manage security concerns associated with consulting and other SD-WAN service providers' delivery**.**

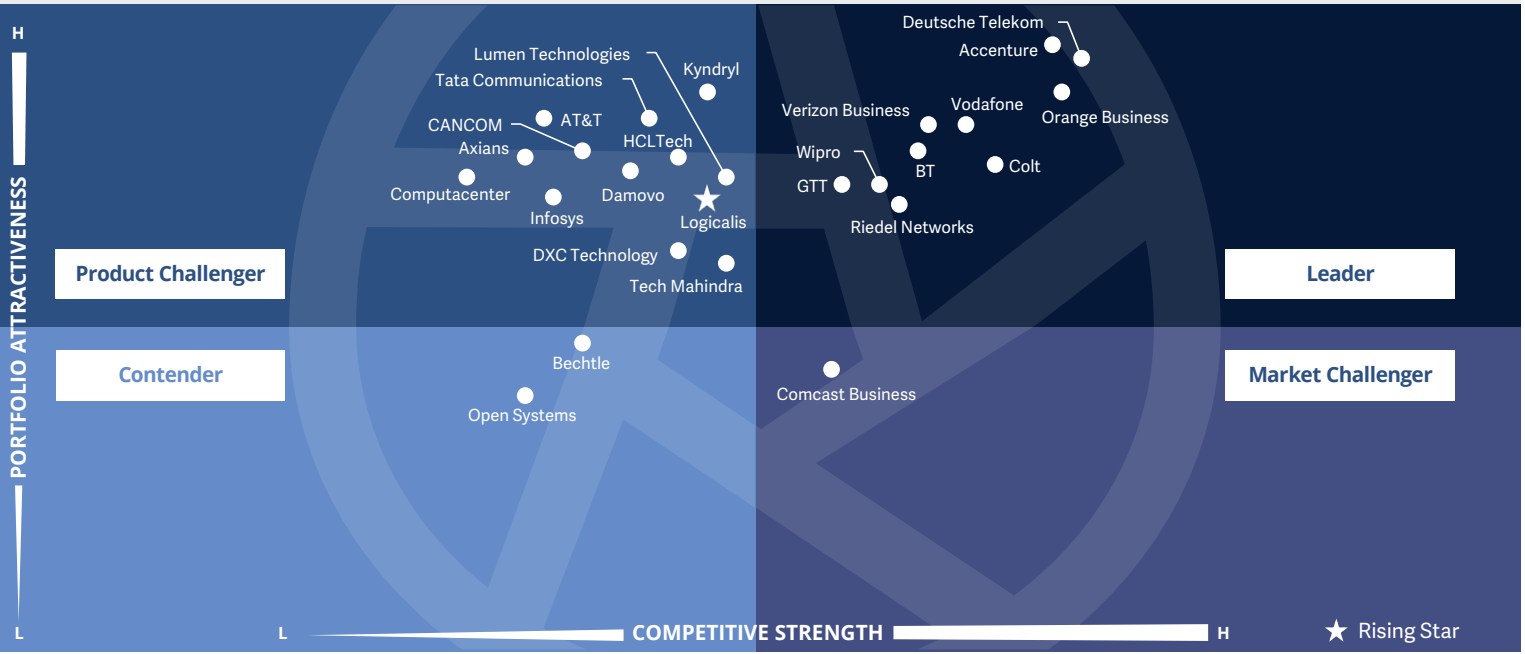
Procurement professionals can acclimatize with managed SD-WAN service suppliers' terms, covering SLAs and KPIs, including service and quality levels, with pay-as-you-consume options.

ISG Provider Lens™

Source: ISG RESEARCH

Network – Software-Defined Solutions and Services
Managed SD-WAN Services

Germany 2024



This section examines companies offering **managed or co-managed SD-WAN** to German enterprises. These providers deliver managed solutions and services to **streamline the delivery** of innovative, advanced and secure networking at **low-risk levels.**

Dr. Kenn D Walters

Definition

This quadrant examines the providers of enterprise WAN (primarily enterprise SDWAN 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 SDWAN 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 term

Observations

Enterprise networking in Germany continues to expand and attract investment, particularly for adopting fully or managed SD-WAN solutions, with many other companies embracing co-managed SD-WAN as part of their cloud migration and security strategies. SD-WAN delivered as a DIY self-managed solution is no longer the most chosen deployment mode, except in some specific industry vertical cases. These trends are in line with the global scenario.

Many success stories exist for managed or co-managed SD-WAN transition and operation in all industry verticals and enterprise scales, delivered from disparate providers and provider types. The risks associated with both remaining with a legacy WAN and the risks and benefits of transitioning to full SD-WAN are well documented, as are numerous case studies and reference accounts in the public domain within Germany and globally.

The German market has witnessed a significant increase in integrating complex security solutions into enterprise networks. These solutions often include SD-WAN and advanced security functions such as SSE. While these solutions are often similar to full SASE solutions in many ways, they may lack some of the fully integrated cross-functionalities SASE solutions offer. Implementing a complete SASE implementation necessitates including SD-WAN as a vital foundational component of SASE itself.

From the 84 companies assessed for this study, 26 qualified for this quadrant, with 10 being Leaders and one a Rising Star.

accenture

Accenture focuses on three key client segments, - Cloud Networks serving (large) enterprise clients, Critical Networks focusing on essential infrastructure, and Clients Comms Networks targeting communication service providers in Germany.

BT

BT has pioneered the managed SD-WAN sector in Germany, offering services to multinational corporations alongside primarily Cisco products. It has now expanded its range of solutions created in-house with multiple partners.

Colt

Colt provides a single network fabric with comprehensive managed services, including SD-WAN and network connectivity, CPE installation and maintenance, proactive monitoring, high-level security measures and SSE and SASE capabilities**.**

Deutsche Telekom takes the approach that its multivendor portfolio better places the company to consult with the client and position the best-fit solution to enable its business outcomes.

GTT

GTT offers multiple SD-WAN gateways in its network and efficiently directs cloud-based and private WAN traffic. Clients can benefit from private connections to cloud service providers, real-time optimization and the support of a Tier 1 advanced backbone.

orange Business Services

Orange Business is spearheaded by its flagship products, Evolution Platform and Flexible SD-WAN. Orange Business is scaling up Evolution Platform implementations, supporting clients from initial consultation to full implementation.

Riedel Networks'

Riedel Networks' SD-WAN network is built on Cisco stack solutions and technologies, offering clients access to the latest Cisco solutions such as Cisco SD-WAN SASE and Umbrella solutions.

Verizon Business adopts a customer value-focused strategy by showcasing and communicating its comprehensive portfolio through network-as-a-service (NaaS) solutions. These solutions offer flexible managed networking options.

Vodafone

Vodafone has a strategy of large, but also SME and SoHo customers. Its managed SD-WAN and SASE service capabilities have been expanded with more partner backed solutions. The company has a broad-based solution set for several important industry verticals.

Wipro managed SD-WAN services in Germany are a key component of its global Digital Network Services, which also feature a range of solutions such as Wipro Insightix™, NetFactory, CoDNI, NetBox, MDO and #WANFreedom.

Logicalis (Rising Star) provides the Logicalis Digital Fabric Platform with Intelligent Connectivity, delivering next-generation connectivity to businesses. The comprehensive suite of solutions includes private 5G, SD-WAN, SASE/SSE and data center.

Leader

"Deutsche Telekom delivers powerful and expanding managed SD-WAN solutions that are vendor agnostic and advanced. It delivers fully customized solutions that scale."

Dr. Kenn D Walters

Deutsche Telekom

Overview

Deutsche Telekom is headquartered in Bonn, Germany. It has more than 199,500 employees across over 87 offices in more than 50 countries. In FY23 the company generated €112.0 billion in revenue, with Services as its largest segment. It offers managed SD-WAN services using a variety of technologies and providers like Cisco SD-WAN, Cisco Meraki, Lancom, Juniper, VMware, Aruba and Aryaka. Its solutions prioritize security and data protection, catering to specific industry needs with customized or off-the-shelf packages.

Strengths

Smooth transition to SD-WAN with futureproofing: The company's approach to fully managed services ensures a smooth transition from traditional networks to SD-networkSD-networks, guaranteeing security, stability and scalability. By incorporating AI and hybrid access technologies, Deutsche Telekom futureproofs its services for evolving enterprise needs.

Proprietary SDX ecosystem and multiple platforms: Deutsche Telekom's platform-based products are designed for automation, easy integration and scalability. These products leverage Cisco IntraSelect SD-WAN Integrated service of overlay and underlay with one SLA, and Telekom SD-WAN Modular overlay services based on Juniper Networks, Aruba (Silver Peak), VMware (VeloCloud), Aryaka, Cisco Meraki, Versa Networks and Fortinet. It has continued to extend its SDX ecosystem with further Juniper SD-WAN capabilities.

Best fit to client requirements approach: Deutsche Telekom takes the approach that with its multivendor portfolio, it is better placed to consult with the client and position the best-fit solution to enable its business outcomes.

Extending overlay and underlay integrations and channels: Deutsche Telekom has continued to extend its SD-WAN overlaywith additional underlay integrations. It now can directly integrate both low Earth orbit (LEO) and fixed wireless access connectivity options.

Caution

Deutsche Telekom is a powerhouse brand in the German networks market and is committed to simplifying its multivendor-agnostic portfolio while expanding its abilities and deliverables. Accomplishing clear messaging of new combined solutions, while simplifying the overall ecosystem messaging is challenging.

SDN Transformation Services (Consulting and Implementation)

Who Should Read This Section

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

The quadrant highlights providers' network service and solution proficiency in handling network transformation from advisory and consulting to implementation.

Traditional network planning methods are inadequate to support network transformation. Enterprises require advanced capabilities such as network virtualization and software-defined networks for enhanced security and traffic optimization features, ensuring end-to-end data security and performance.

The intricate nature of the SDN landscape has enterprises in Germany opting for advisory-led approaches and transitioning toward outsourcing models for SDN services. Providers in Germany are taking a multifaceted approach to support enterprises in their network transformation. Furthermore, enterprises strongly emphasize that providers demonstrate more than just advisory and consulting services in guiding organizations through the implementation process. Providers must differentiate their services offering, spanning areas from advisory, consulting and designing to technology deployment and support in integration and implementation catering to various industry needs.

Networking professionals should read this report to understand the best way to effectively consume network transformation services and leverage service providers' partner ecosystem.

Digital transformation professionals should read this report to understand how network transformation service providers align with their enterprise transformation journey and how they compare against each other.

Cybersecurity professionals should read this report to understand how providers use technologies to manage security concerns associated with consulting and other SD-WAN transformation service providers.

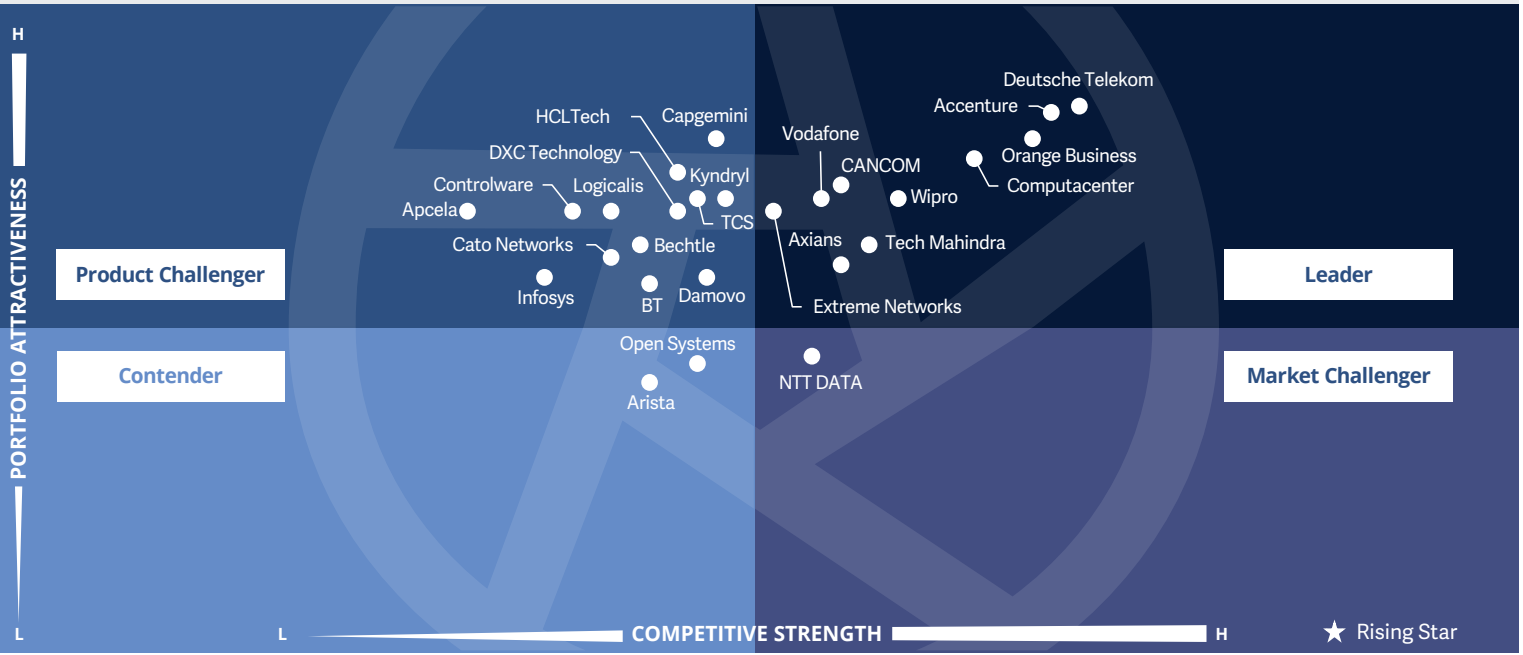
Procurement professionals should read this report to learn about the payment schemes offered by transformation service suppliers, especially around pay-as-you-consume or similar payment arrangements.

ISG Provider Lens™

Source: ISG RESEARCH

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

Germany 2024



In this quadrant, we analyze providers that offer **consulting and implementation services, specifically in SD-networking**. These companies can **deliver functional solutions** and provide services, from **initial advice to complete rollout assistance.**

Dr. Kenn D Walters

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

Observations

Enterprise network transformation engagements in Germany commonly involve advisory-led approaches. This is because the field of SD-networking is highly complex and requires expertise in enterprise and industry-specific areas. Future-state technology planning is also necessary to meet business needs. Before any formal requests for information or proposal contests for procurement, enterprises often seek advice from traditional management or technology consulting companies through independent advisory projects. As an alternative, companies can ask providers themselves for such assistance. These advisory teams usually consist of highly experienced professionals with expertise in specific industries. However, these provider teams are often more vendor specific, as they are provided directly by the vendors themselves, wishing to leverage the providers offerings and partner ecosystem. As a result, there is also a growing trend of involving traditional consulting companies or systems integrators (SIs) at the strategic and tactical planning stage as these are considered to be more product agnostic.

In Germany, the involvement of consultants and SIs has prompted major network service providers to establish their own consulting and advisory teams within their business units. These teams try to replicate the vendor-neutral approach of external consulting and SI firms. In most cases, these providers remain involved from the initial advisory phase to the operational phase of the selected solution.

Within this quadrant, many providers utilize advanced methods to ensure seamless transitions from business road map to efficient implemented operations.

From the 84 companies assessed for this study, 26 qualified for this quadrant, with 10 being Leaders.

accenture

Accenture's advisory approach tackles client transformation by aligning with their business roadmap and needs. It leverages the organization's full potential and recognizes the network's importance in bridging business, technology, processes and human aspects.

axians

Axians solutions are tailored to specific client needs and are vendor independent. The company has several vendors in its portfolio, and chooses the solution that best fits client needs. It delivers individual offers without fixed and limited packages.

CANCOM

CANCOM offerings include strategic consulting, use case analysis, implementation support and high- and low-level design workshops. On this base, the company delivers value-added services and solutions focusing on customer needs.

Computacenter

Computacenter delivers high expertise in designing optimal ICT transitions and SD-WAN multicloud architectures using mature in-house resources for advisory, design and implementation services.

Deutsche Telekom offers a wide range of advisory and implementation services that cater to various industries. It provides top-notch advisory services and its own cutting-edge solutions while boasting a strong network of partners.

Extreme Networks'

Extreme Networks' team of experts offers services in assessment, project management, integration, implementation, training, infrastructure support, on-site management, performance optimization and security enhancements following industry best practices.

Orange Business can provide ongoing and/or punctual end-to-end consulting and accompaniment to its customers for each SD-WAN/SASE transformation project in collaboration with Orange Group, Orange Cyberdefense and the Evolution Platform, as required.

Tech Mahindra provides advisory services backed by industry experience, tools and processes to offer advanced network-as-a-service models. Its advisory services leverage managed services, engineering support and leading-edge automation.

Vodafone

Vodafone strongly delivers network transformation in Germany and the SME market, providing tailored solutions with the help of expert advisors and advanced informative portals. It integrates solutions to meet the needs of its clients.

Wipro's Digital Network Practice offers consulting and transformation services for SD-networks, utilizing its Insightix™ assessment framework, NetFactory and CoDNI for various industries. The company also provides advanced transformation services for SD-WAN and SASE.

Leader

"Deutsche Telekom continues to advance its advisory-driven transformation services, delivering framework- and method-supported transformation to advanced enterprise networks with great skill and successful deliveries."

Dr. Kenn D Walters

Deutsche Telekom

Overview

Deutsche Telekom is headquartered in Bonn, Germany. It has more than 199,500 employees across over 87 offices in more than 50 countries. In FY23 the company generated €112.0 billion in revenue, with Services as its largest segment. With the support of its Detecon arm, the company has successfully consolidated resources into a dominant force in the B2B sector. It offers various advisory and implementation services catering to various industries. Deutsche Telekom provides top-notch advisory services and its own cutting-edge solutions, while also boasting a strong network of partners.

Strengths

Consulting experts: Deutsche Telekom and its subsidiaries have strengthened their advisory capabilities and have over 500 skilled consultants and transformation experts. By integrating T-Systems functions into the B2B unit, the company now has cross-functional teams that Detecon bolsters. It emphasizes the importance of cross-skilling its resources with an Agile and DevOps approach in mind for future advisory initiatives.

Methodical approach: Deutsche Telekom's Global Business Services provide a variety of implementation methodologies, tailored to each customer's needs. The company follows the Strategy, Activate, Facilitate and Employ (SAFE) methodology based on the Zero Outage principle to ensure a secure and seamless migration process. Implementing these SAFE modules minimizes downtime, reduces risks and maximizes benefits for its clients.

Transformation frameworks: Deutsche Telekom has created frameworks for consulting and transformation, aiding in selecting solutions, tools and migration paths. Transformation methodologies are based on the company's Layout, Upgrade, Creation, and Implementation (LUCI) methodology and with a Zero Outage principle. These proven methods and framework are used to transform customers' solution seamlessly without business impact.

Caution

Deutsche Telekom is a powerhouse brand in the German network market, still expanding its abilities and deliverables. Accomplishing clear messaging of new combined solutions, while simplifying the overall advisory and messaging is challenging, especially in a stiffly competitive market segment.

Edge Technologies and Services (including Private 5G)

Who Should Read This Section

This report is relevant to enterprises across all industries in Germany that evaluate providers offering technologies and services for the critical network edge. These include hardware, software, management and reporting tools, applications and other services associated with the network edge.

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

The surge in data collected from various technologies such as IoT and SD networking, including SD-LAN, SD-WLAN or SD-MWLAN at the edge, necessitates efficient processing and analysis. Moving data to the cloud for additional processing becomes crucial. To keep with this trend, service providers in the network transformation space focus on continued edge-to-cloud integration services that empower enterprises with flexibility and security to thrive in the modern business landscape.

German enterprises have increased their adoption and integration of advanced networking technologies, including private 5G, cloud services, SD networking and Wi-Fi 6. By bringing computing storage and analytics of those technologies closer to the data source, edge computing elevates real-time processing and cost-effectiveness while enhancing reliability. ISG observes that edge computing adoption is on the rise across diverse industries. It is poised to usher in a network transformation journey across industries, unlocking innovative solutions around private 5G and software-defined networking to enhance enterprise operations, decision-making processes and overall efficiency.

Networking professionals involved in strategy, architecture, operations and procurement should read this report to understand providers' relative positioning and capabilities.

Cybersecurity professionals should read this report to understand the security posture associated with mobile network service providers and the associated vulnerabilities that are inferred with digital assets.

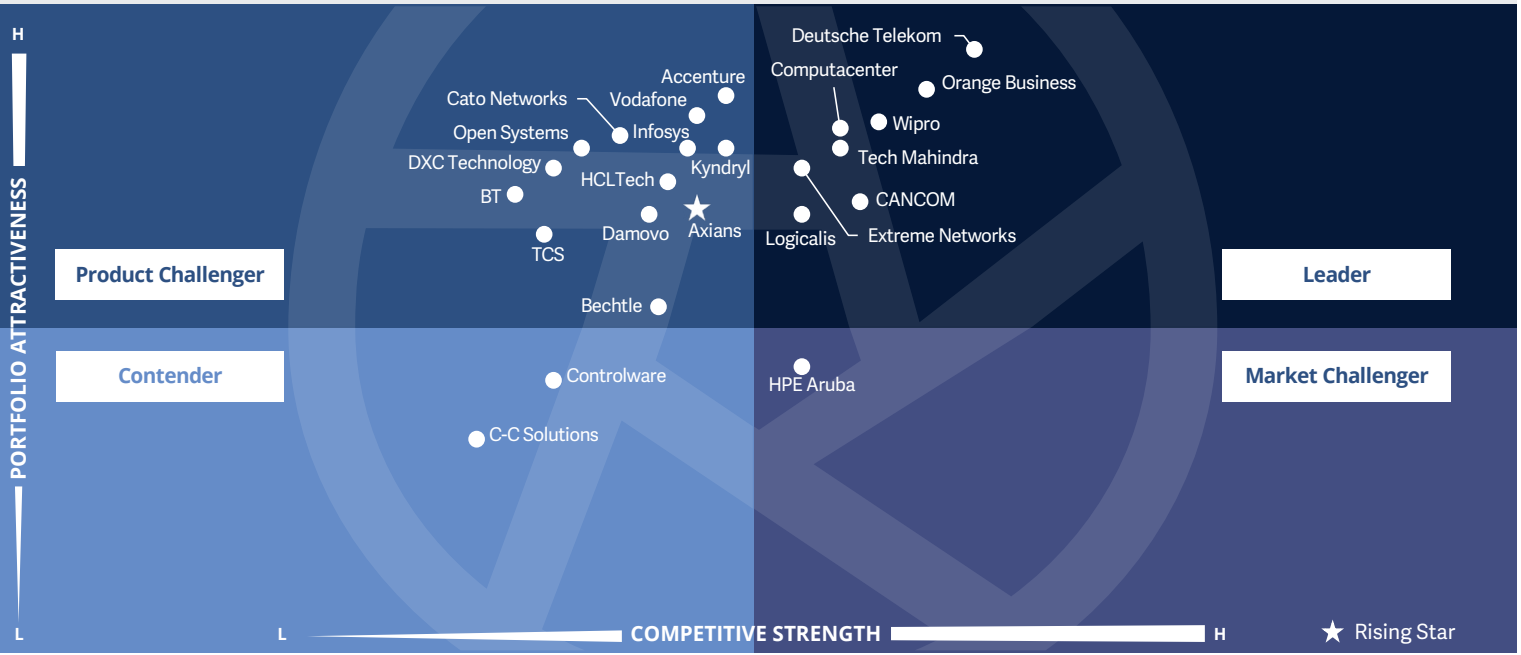
Digital transformation professionals should read this report to understand how mobile network transformation service providers align with their enterprise transformation journey and effectively leverage their partner ecosystems.

ISG Provider Lens™

Source: ISG RESEARCH

Network – Software-Defined Solutions and Services
Edge Technologies and Services (including Private 5G)

Germany 2024



This section evaluates companies that offer **comprehensive solutions for the network edge,** such as **SD-LAN, private 5G with SD orchestration** and various services or products **tailored to enterprises' network edge** needs.

Dr. Kenn D Walters

Edge Technologies and Services (including Private 5G)

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

Observations

Germany has witnessed a continuous and rapid expansion of edge computing. This growth can be attributed, in part, to the increasing popularity of the hybrid working model and flexible campus network expansion and mobility. Enterprise network edge technologies encompass a wide range of solutions designed to enhance security, optimize performance and enable efficient access to cloud-based services. There has been a significant surge in the expansion of edge technology, including network edge, branch edge and remote edge.

In Germany, similar to other developed countries, the emergence of new technologies and process models has transformed edge computing into a complex and rapidly growing business sector. Consequently, it has become a focal point for enterprise executives. These technologies and models include the Internet of Things (IoT), encompassing IoT and Industrial Internet of Things (IIoT) sensors, control and security devices, and SD-networking through multicloud, SD-LAN, SD-WLAN or SD-MWLAN with robust security features. Implementing network edge technologies in enterprise networks offers numerous benefits but also comes with many challenges. One of the key benefits is improved network performance and reliability. By leveraging technologies such as edge computing, software-defined networking and network function virtualization (NFV) enterprises can distribute processing resources much closer to the network edge.

Given the solid German industry vertical space, which encompasses global trends like manufacturing, Industry 4.0, robotic devices, telemetry and the metaverse, edge computing adoption continues to accelerate, resulting in year-over-year growth.

From the 84 companies assessed for this study, 24 qualified for this quadrant, with eight being Leaders and one a Rising Star.

CANCOM's

CANCOM's approach involves utilizing its managed services like XaaS, particularly digital workplace as a service, which includes various edge solutions including LAN/WLAN and camera or sensor devices.

Computacenter

Computacenter delivers industry-specific edge computing, IIoT platform strategies, platform maturity assessments, shop floor applications migration, cost monitoring for services and blueprinting. Solutions can be tested in its German testing labs before deployment.

Deutsche Telekom delivers comprehensive services and solutions spanning from core components to edge platforms, including 5G campus service. The EdgAIR solution is an advanced edge offering.

Extreme Networks'

Extreme Networks' global solution set includes the Smart OmniEdge network solution, which delivers a smooth wired/wireless implementation for cloud/on-premises deployment, leveraging AI functions and a centralized management system.

LOGICALIS Architects of Change

Logicalis maintains a staff of more than 400 professionals in key cities such as Frankfurt, Berlin, Cologne, Munich and Stuttgart. Logicalis engages with clients in SDN, NFV, SD-WAN, SASE, private 5G and edge solutions for enterprise networks in Germany.

orange Business Services

Orange Business is dedicated to expanding its edge solutions by combining extensive experience in networking, cloud, security, LAN, IoT and IIoT solutions alongside its Evolution Platform.

Tech Mahindra

Tech Mahindra delivers AI-powered edge solutions and technology tailored for mobile edge, branch and 5G enterprise networks at the network edge. It also provides advisory services, tools and processes designed to deliver network solutions in an as-a-service format.

Wipro's BoundaryLess Universal Edge (BLUE) provides a complete set of platforms and services orchestrated through its Multi Domain Orchestrator (MDO), from enterprise core through multicloud to the network edge.

axians

Axians (Rising Star) specializes in NaaS delivery and delivers edge solutions and services via its mature SI and advisory background. Its team of professionals works closely with clients to design and implement client- and industry-specific edge solutions.

Leader

"Deutsche Telekom is a dominant force, delivering advanced and powerful edge solutions and platforms and 5G campus networks for enterprises in Germany, tailored to client and industry requirements."

Dr. Kenn D Walters

Deutsche Telekom

Overview

Deutsche Telekom is headquartered in Bonn, Germany. It has more than 199,500 employees across over 87 offices in more than 50 countries. In FY23 the company generated €112.0 billion in revenue, with Services as its largest segment. The company delivers comprehensive services and solutions in software-defined and cloud networking, from core components to edge platforms, including 5G campus service. The EdgAIR solution offers seamless integration with the edge-cloud ecosystems of AWS, Microsoft Azure and Google Cloud, providing enterprise customers with a comprehensive ecosystem of connectivity, cloud-edge and digital solutions.

Strengths

Deutsche Telekom 5G standalone Campus Network: This new product provides a local 5G infrastructure exclusively for business customers' digital applications. The service offers all the technical advantages of 5G, even for particularly demanding and safety-critical use cases. The advantages include fast data transmission rates, maximum network capacity and highly reliable connectivity with low latency. The company provides planning, deployment and operation of the 5G Campus Network.

EdgAIR: This is a key market service offering that is scalable and modular, with a product roadmap aligned to the developing requirements of German customers and industry trends. It is an open source software, hardware-agnostic, managed service that allows a more flexible reaction to customer demands compared with the turnkey and locked-in options provided by individual hyperscalers and hardware vendors. EdgAIR promotes integration, agility and flexibility.

EdgAIR container options: Businesses can link their IoT applications through pre-built connectors. These applications run as virtual machines or microservices in Docker containers, independent of the underlying infrastructure. Kubernetes then seamlessly coordinates the containers.

Caution

Deutsche Telekom has a powerful and advanced edge offering with its EdgAIR platform and service and the 5G Campus Network. The company is strongly recommended to utilize its media channels and German media reach more, with regular PR and reference case updates to maintain its dominance in the face of fierce competition.

Secure Access Service Edge (SASE)

Who Should Read This Section

This report is relevant to enterprises across all industries in Germany for evaluating enterprise SASE service providers.

In this quadrant, ISG lays out the current market positioning of SASE service providers in Germany and how they address the key challenges enterprises face.

The convergence of network and security is a growing trend among German enterprises, with an increasing focus on integrating security measures directly into the network fabric. Enterprises face growing challenges around distributed applications, cloud connectivity and sprawling security risks. They require a holistic security approach to effectively safeguard digital assets and data against evolving cyberthreats. Service providers have expanded their portfolio to include SASE functionality covering SSE components such as SWG, CASB, FWaaS, DLP, intrusion detection and ZTNA to protect enterprise access to public networks and SaaS applications. This will extend to the underlay fabric and cloud edge, where tighter integration with SSE vendors will be seen as a key enabler for accelerating zero trust.

ISG sees hybrid (cloud/edge deployment) and single-pass architectures driving SASE services. Enterprises prioritize providers with robust SASE solutions that can accommodate networking and security on-premises and using cloud points of presence (PoPs). They also seek providers with integrated advanced technologies such as GenAI and AIOps in network and security management to transform threat detection and incident response, empowering proactive security measures, minimizing downtime and enhancing IT operational efficiency.

Networking professionals should read this report to understand SASE service providers' capabilities and their technical and integration capabilities and partnerships.

Digital transformation professionals should read this report to understand how SASE service providers align with their enterprise digital transformation journey and how they compare with one another. .

Cybersecurity professionals should read this report to understand the current state of security capabilities associated with the providers of consulting and other SASE services.

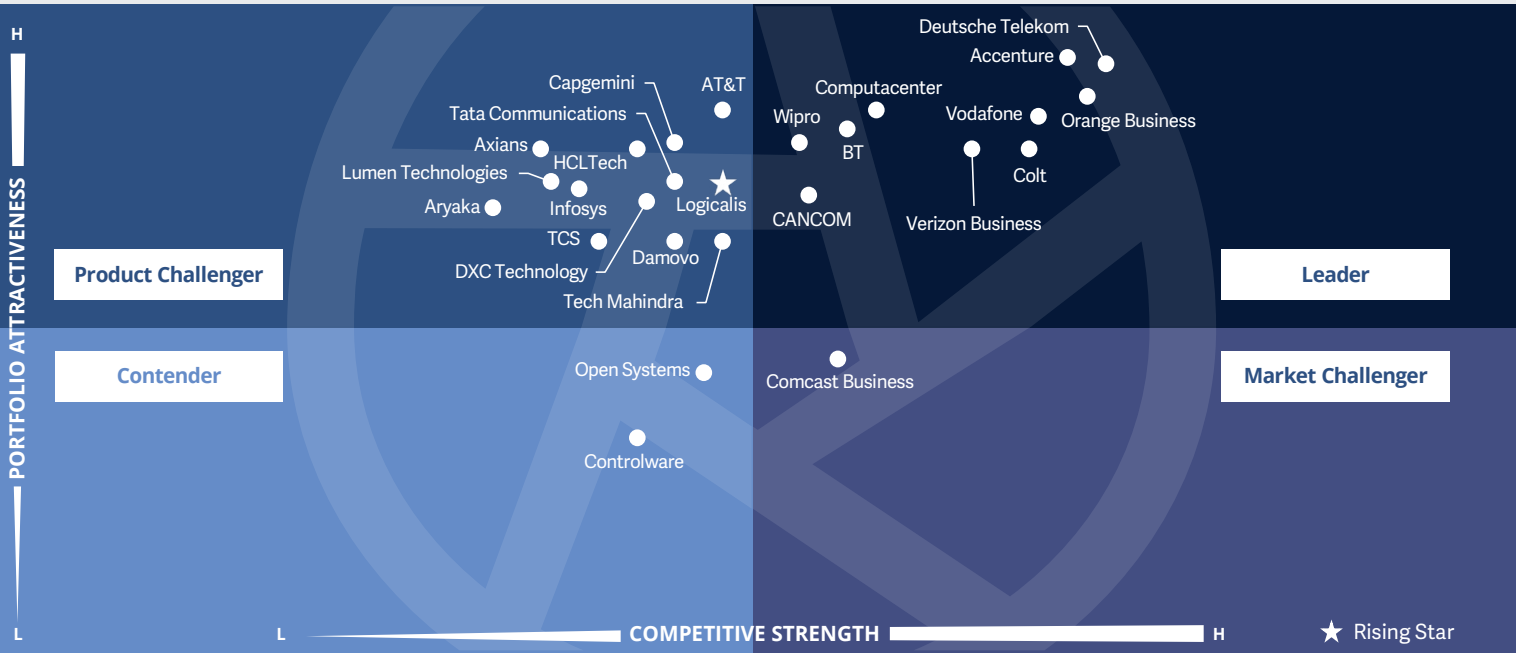
Procurement professionals should read this report to acclimatize with SASE service suppliers, especially around new pay-as-you-consumeoptions instead of traditional models.

ISG Provider Lens™

Source: ISG RESEARCH

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

Germany 2024



This quadrant analyzes providers with **SASE solutions and services** functioning as comprehensive, **integrated networks and advanced security solutions.** This ensures a secure network from the **core to the network edge.**

Dr. Kenn D Walters

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 SDWAN, 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 solutionsin commercial deployment
8. **Competitiveness** of offerings and types of commercial terms

Observations

The concept of integrated secure enterprise networks has been established in the German market for several years. However, it has gained popularity in recent years under the term SASE. The detailed components of SASE have now been agreed upon, transitioning secure access service edge from a theory to widespread commercial implementation. This includes core-to-edge security and zero trust with integrated SD-WAN, provided by reputable global vendors offering robust solutions. SASE is a rapidly growing sector in Germany's enterprise transformation and network industry, and its expansion is expected to continue across all industry sectors in the coming years. This expansion is driven partly by the emergence of new disruptive players in the market that on SASE, and established systems integrators partnering with leading SASE solution providers to deliver comprehensive end-to-end secure network transformation for their corporate clients.

The newer term security service edge (SSE) may cause confusion for some. It is used describe a collection of cloud-based security tools, such as cloud access security broker, secure web gateways, FWaaS and ZTNA. SSE can therefore supplement and integrate with existing SD-WAN to establish a less comprehensive but SASE like solution within an organization.

These SSE tools make up around half to two-thirds of a complete SASE architecture, which, according to our quadrant definition, involves the merging and integration of SD-networking (SD-WAN) and a comprehensive suite of security tools including (at least) CASB, SWG, FwaaS, and ZTNA within a cloud infrastructure.

From the 84 companies assessed for this study, 26 qualified for this quadrant, with 10 being Leaders and one a Rising Star.

accenture

Accenture provides a wide array of SASE and SSE capabilities, including devising strategies, creating roadmaps, facilitating migrations, overseeing management, implementing solutions and carrying out network segmentation.

BT

BT delivers flexible SASE architecture supported by a single service wrap, offering a streamlined and automated service experience through the Unified Service Desk. This can be single or multivendor SASE.

CANCOM

CANCOM provides a complete SASE-as-a-service portfolio that allows for individual technologies within the architecture to be offered as standalone services. This flexibility enables the design of solutions that meet client needs.

Colt

Colt provides a comprehensive managed network service portfolio that includes SD-WAN, network connectivity, CPE installation and maintenance, proactive monitoring, high-level security measures, and SSE and SASE capabilities.

Computacenter

In the SASE sector **Computacenter** offers strategic consultancy to assist in business case development, vendor evaluation, selection, sourcing, architectural design and professional implementation services.

Deutsche Telekom adopts a vendor-neutral and consultative approach, offering various SASE solutions that are designed in a modular fashion. The intent is to fully integrate these solutions and management sets into the SD-X platform.

Orange Business is incorporating SASE-focused networking technology into its Evolution Platform to enhance security and network efficiencies and performance. The approach features automation for real-time service updates and improved customer experience.

Verizon Business' Advanced SASE delivers a distributed networking and security platform that ensures secure connectivity across various locations and provides SASE and network-on-demand capability with bandwidth flexibility and guaranteed quality and security of service.

Vodafone

Vodafone has an integrated advanced SD-WAN and SASE solution, with plans to extend its offerings into the SME and SoHo areas. It delivers robust, partner-backed SASE from multivendors.

Wipro has established a robust and mature presence in Germany, with multiple offices and a large workforce dedicated to the region. Leveraging SASE and ZTNA security frameworks, Wipro's SASE services are part of its Digital Network Services unit.

Logicalis (Rising Star) has the Logicalis Cisco Powered Intelligent Connectivity solution, which is a SASE-based managed offering that delivers access and zero-trust security from edge to edge, with real-time insights into network, connectivity and application performance.

Leader

"Deutsche Telekom delivers powerful and advanced best-of-breed SASE solutions customized for specific clients and industries constantly evolving toward a unified SD-X solution endpoint."

Dr. Kenn D Walters

Deutsche Telekom

Overview

Deutsche Telekom is headquartered in Bonn, Germany. It has more than 199,500 employees across over 87 offices in more than 50 countries. In FY23 the company generated €112.0 billion in revenue, with Services as its largest segment. It adopts a vendor-neutral and consultative approach, offering various SASE solutions designed in a modular fashion. These solutions include both native and service-inserted SASE options for customers worldwide. The intent is to fully integrate these solutions and management sets into the SD-X platform.

Strengths

Magenta Security Business SASE: Deutsche Telekom has developed a comprehensive suite of two SASE flavors: single-vendor SASE ecosystems based on Fortinet and Cisco technology and multivendor SASE options with Zscaler and Palo Alto technology in combination with leading SD-WAN vendors. On top of the two offering types, the company supports various individual solutions for our customers.

Modular managed SASE implementations: All of Deutsche Telekom's managed SASE solutions are modular, with support for both native solutions with Versa, VMware, Palo Alto Prisma and Fortinet SASE and with Service Insertion options via Zscaler into VMware, Aruba and Juniper.

Vendor agnostic with integration to backbone: The SASE approach requires partnering with leading SASE-SSE vendors, such as Zscaler, Palo Alto, Fortinet and Cisco, together with a modular approach and a Deutsche Telekom managed service wrap. Integration with security operation center (SOC) and SIEM services is also available. The company is also further developing its Magenta SASE approach with direct integration into the existing Edge Compute Service Nodes based on its Tier 1 backbone (AS3320).

Transition to SD-X: The company's SASE solutions are increasingly modular and becoming integrated into its SD-X platform for end-to-end automation and flexibility.

Caution

Deutsche Telekom's Magenta SASE multi-option SASE solution combined with the new SD-X initiative is powerful. Still, it may require significant advisory effort to clarify the full offering during the sales phase. Clear scenarios and messaging are crucial.

Star of Excellence

A program, designed by ISG, to collect client feedback about providers' success in demonstrating the highest standards of client service excellence and customer centricity.

Source: ISG Star of Excellence™ research program, Insights till May 2024

In the ISG Star of Excellence™ research on enterprise customer experience (CX), clients have given feedback about their experience with service providers for their **Network - Software-Defined** services.

Based on the direct feedback of enterprise clients, below are the key highlights:

Client Business Role

▲ **Most satisfied**
Sales/Marketing

▼ **Least satisfied**
Finance

Region

▲ **Most satisfied**
Australia/New Zealand

▼ **Least satisfied**
Central/South America

Industry

▲ **Most satisfied**
Retail

▼ **Least satisfied**
Chemicals

Industry Average CX Score

▲ Highest CX: 88.2
▼ Lowest CX: 51.2

CX Score: 100 most satisfied, 0 least satisfied
Total responses (N) = 269

Most Important CX Pillar

Execution and Delivery

Service Delivery Models	Avg % of Work Done
Onsite	53.1%
Nearshore	21.5%
Offshore	25.4%

Appendix

The ISG Provider Lens 2024 – Network – Software Defined Solutions and Services 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.

Study Sponsor:
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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 service providers and analysis of publicly available market information from multiple sources. The data collected for this report represent information that ISG believes to be current as of June 2024 for providers that actively participated and for providers that did not. ISG recognizes that many mergers and acquisitions may have occurred since then, but this report does not reflect these changes.

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

The study was conducted in the following steps:

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

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, aswell 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,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.

Research Analyst

Deepika B

Senior Research Analyst

Deepika is a Senior Research Analyst at ISG and is responsible for supporting and co-authoring Provider Lens™ studies on Cybersecurity - Services and solutions, Telecommunication, Media and Entertainment Services and Networking – Software defined Solutions and Services. She works closely with the Lead author from diverse regions in the research process. She also authors enterprise context and global summary reports. She has over 4 years of experience in the technology research industry and has carried out various client-facing ad-hoc projects across industries such as Automotive, BFSI, and Retail & Consumer Goods. Prior to this role, she was also accountable for maintaining a constant eye on the technology market and providing insightful quantitative and strategic analysis to clients through market sector reports.

Study Sponsor

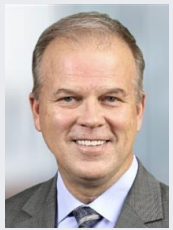
Heiko Henkes

Director & Principal Analyst, Global IPL Content Lead

Heiko Henkes serves as Director and Principal Analyst at ISG, overseeing the Global ISG Provider Lens™ (IPL) Program for all IT Outsourcing (ITO) studies alongside his pivotal role in the global IPL division as a strategic program manager and thought leader for IPL lead analysts.

Henkes heads Star of Excellence, ISG's global customer experience initiative, steering program design and its integration with IPL and ISG's sourcing practice. His expertise lies in guiding companies through IT-based business model transformations, leveraging his deep understanding of continuous transformation, IT competencies, sustainable business strategies and change management in a cloud-AI-driven business landscape. Henkes is known for his contributions as a keynote speaker on digital innovation, sharing insights on using technology for business growth and transformation.

IPL Product Owner



Jan Erik Aase

Partner and Global Head – ISG Provider Lens/ISG Research

Mr. Aase brings extensive experience in the implementation and research of service integration and management of both IT and business processes;. With over 35 years of experience, he is highly skilled at analyzing vendor governance trends and methodologies, identifying inefficiencies in current processes, and advising the industry. Jan Erik has experience on all four sides of the sourcing and vendor governance lifecycle - as a client, an industry analyst, a service provider and an advisor. Now as a partner and global head of ISG Provider Lens™, he is very well positioned to assess and report on the state of the industry and make recommendations for both enterprises and service provider clients.

ISG Provider Lens™

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

For more information about ISG Provider Lens™ research, please visit this webpage.

ISG Research™

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

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

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