



2020

Network – Software  
Defined Solutions and  
Service Partners 2020

imagine your future®

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# Definition

This ISG Provider Lens™ study examines the different kinds of global network offerings related to software-defined networking. These include SD-WAN, (consulting, Implementation and managed services) SD-WAN (DIY) equipment and service supply, and core-branch, branch-edge core and mobile technology suppliers and service offerings related to those segments. The study also looks at the more traditional managed wide area network (WAN) market offerings and additional non-core mobile service offering in the 4G and emerging 5G spaces. For users, both traditional WAN and software-defined markets are very important.

Existing managed WAN services, MPLS, etc. still today form the backbone of revenues generated and most of the customer deployments in many telcos and service providers worldwide. This, however, is continuing to change rapidly. The software-defined network (SDN) and software defined WAN (SD-WAN) segments are evolving and rapidly increasing in market share and presence, as are several other related network services such as network function virtualization (NFV), mobility (LTE/4G/5G) additional services, with their triggers and influences, software-defined local area networks (SD-LAN), etc. This is driven significantly by the ongoing digital transformation of business processes, organizations and business models to meet the requirements of a dynamic, globalized world in real time by increasing agility and flexibility, boosting customer satisfaction and opportunity, strengthening competitive positioning for the enterprise, and decreasing the overall network costs.

ISG sets out to deliver a comprehensive but defensible research program with clear and extensive evaluation criteria, 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 consistent market overview for the segments, along with concrete decision-making support to help user organizations evaluate and assess the offerings and performance of providers.

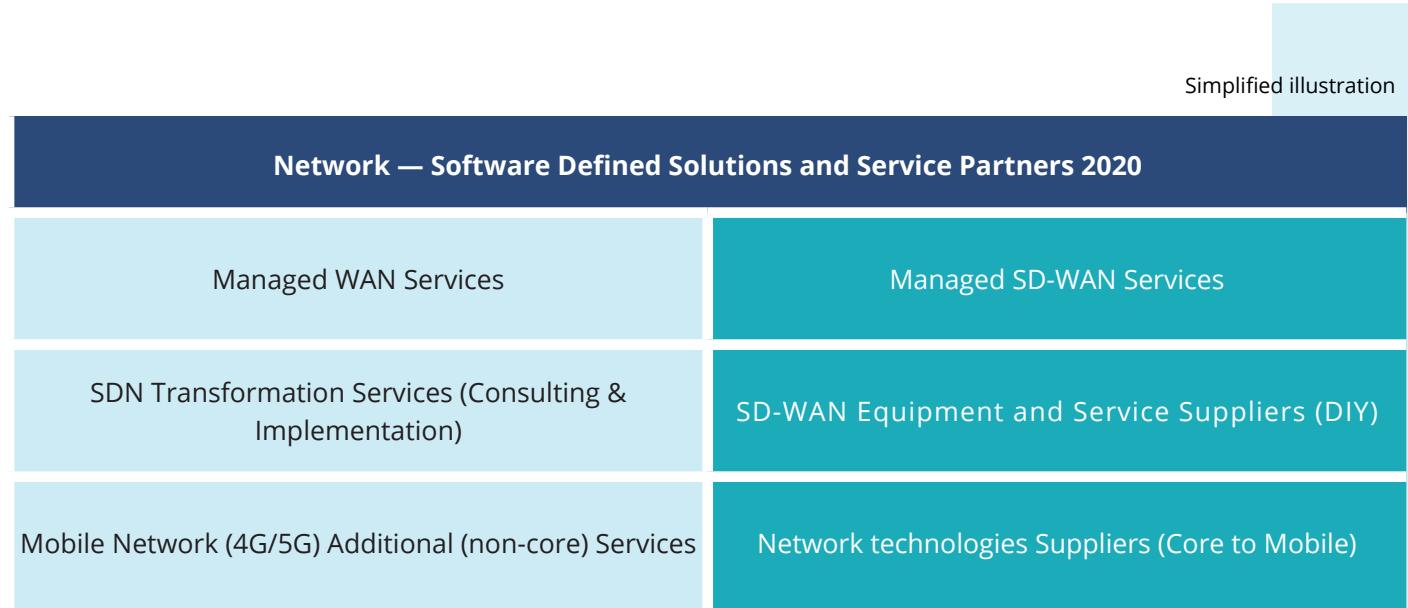
The ISG Provider Lens™ study offers IT decision makers:

- Transparency over the strengths and weaknesses of relevant providers
- Differentiated positioning of providers by segments
- Focus on several markets, including Germany, U.K., U.S. and Nordics

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

# Quadrant Research

As part of this ISG Provider Lens™ quadrant study, we are introducing the following six quadrants under Network — Software Defined Solutions and Service Partners 2020.



Source: ISG 2020

## Managed WAN Services

Managed WAN services cover the features and functionality that carriers offer in their WANs and at the customer point of demarcation. They are a collection of value-added services that include monitoring and reporting, security and outsourced customer premise equipment (CPE) functions. Many enterprises perceive managed WAN services as a means to outsource IT functions, and they purchase them along with consulting and professional services to assess, design and implement their enterprise networks. At a basic level, managed WAN services from carriers offer monitoring and alerts for critical problems such as network outages. Higher tiers of service can add configuration management, proactive troubleshooting and trouble resolution, service-level agreement (SLA) management, more sophisticated and granular monitoring and reporting, on-the-ground CPE installation and hardware support to ensure CPE software is up to date and configured correctly, and overall lifecycle management.

This section covers all major suppliers of managed WAN services to enterprises.

Eligibility criteria:

- Product/service portfolio coverage, completeness and scope
- Ability to deliver and manage all hardware and software aspects
- Management capability for the needed orchestration and control of the overall architecture
- Stability and roadmap planning of the provider
- Reference customer/site volume in deployment
- Competitiveness of offering and commercial terms

## Managed SD-WAN Services

SD-WAN provides the benefits of SDN technology over traditionally hardware-based networking. It is an overlay architecture with a networking foundation that is much easier to manage than legacy WANs, essentially moving the control layer to the cloud and in the process, centralizing and simplifying network management. This overlay design abstracts software from hardware, enabling network virtualization and making the network more elastic. 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 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 services providers to supply complete managed SD-WAN solutions to enterprises as well as offering them as white-label products for telco providers or integrators as part of their broader strategic implementations.

This section covers all major suppliers of managed SD-WAN services to enterprises.

Eligibility criteria:

- Product/service SD portfolio coverage, completeness and scope
- Ability to deliver and manage all hardware and software aspects
- Management capability for the needed orchestration and control of the overall architecture
- Flexibility and ease of introduction of new services and deployments
- Stability and roadmap planning of the provider
- Reference customer/site volume in deployment
- Competitiveness of offering and commercial terms

## SDN Transformation Services (Consulting & Implementation)

SDN and SD-WAN provide the benefits of SDN technology over traditionally hardware-based networking and can be related to NFV. SD-WAN is driven by current business requirements to enable agility and flexibility, while simplifying network management, deployments and reducing costs. It is an overlay architecture with a networking foundation that is much easier to manage than legacy WANs, essentially moving the control layer to the cloud and thereby centralizing and simplifying network management. Suppliers have been increasingly active as advisors/consultants in this area and are also working as implementation enactors, supplying complete or partial solutions to enterprises. Consulting companies, large vendors and managed network services providers have also been actively involved in offering SD-WAN packages in this area (independently or as part of partnership/consortium deals).

This section covers all advisory/consulting, hardware and software, management/reporting tools, applications and services associated with delivering SD-WAN to enterprises (from consulting to managed SD-WAN services delivery).

Eligibility criteria:

- Product/service portfolio coverage, completeness and scope
- Ability to deliver in consulting and implementational areas
- Understanding of overall market area and contributions to that area
- Scope of partnerships and offerings, management capability for the needed orchestration within a customer project
- Stability and roadmap planning of the provider
- Reference customer/solutions in post pilot/commercial deployment
- Competitiveness of offering and types of commercial terms

## SD-WAN Equipment and Service Suppliers (DIY)

SD-WAN provides the benefits of SDN technology to traditionally hardware-based networking. It is easier to manage than legacy WANs, essentially centralizing and simplifying network management and easing deployment by having a cloud-based control layer. This overlay design abstracts software from hardware, enabling network virtualization and making the network more elastic. One of the key aspects of the architecture is that it can communicate with all network endpoints without the need for external mechanisms or additional protocols. Suppliers have been active in directly selling SD-WAN solutions to enterprises for their DIY (enterprises' own and non-managed) implementations and are increasingly partnering with licensed telco/service providers in their delivery packages in this space.

This section covers all hardware and software, management/reporting tools, applications and services associated with delivering SD-WAN for enterprise-owned operations.

Eligibility criteria:

- Product/service portfolio coverage, completeness and scope
- Ability to deliver equipment and service to customer, inclusive of prerequisite training
- Understanding of overall market area and contributions to that area
- Scope of partnerships and offerings, management capability for the needed orchestration within a customer project
- Openness of offering to avoid vendor lock-in
- Ability to offer full customer support and assistance post delivery
- Stability and roadmap planning of the provider
- Reference customer/solutions in post pilot/commercial deployment
- Competitiveness of offering and types of commercial terms

## Network Technologies Suppliers (Core to Mobile)

SD technology is a networking approach that eliminates the complex and static nature of legacy distributed network architectures by using a standards-based software abstraction between the network control plane and underlying data forwarding plane, including both physical and virtual devices. It enables improvements in network agility and automation while substantially reducing the cost of network operations when compared to traditional network deployments. Adopting an industry standard data plane abstraction protocol (such as OpenFlow) allows the use of any type and brand of data plane devices as all the underlying network hardware is addressable through a common abstraction protocol. Such a protocol allows for the dynamic and automatic provisioning of virtual network segments and virtual routing services on both physical and virtual networking devices. These are considered as core network functions. Additionally, all edge components may be managed and dealt with in the same manner as core and SD-WAN components, with software-defined capabilities to include the branch and edge functionality, as well as all customer premises equipment (CPE, referenced as virtual CPE or vCPE in SD terms) and associated Wi-Fi networks, access points (APs), software-defined mobile networks (SDMNs) and software-defined local area networks (SD-LANs) that include both wireless (SD-WLAN) or mobile (SD-WMLAN).

This section covers all vendors of SD core services that are purchased directly by either enterprises or service providers for specific enterprise projects. It includes those supplying solutions that can integrate into an enterprise wide SD-WAN strategy to the branch or remote office locations, incorporating WiFi/wireless and LAN/SD-LAN solutions (including vCPE solutions).

Eligibility criteria:

- Product portfolio coverage, focus areas, completeness of broader solutions
- Ability to deliver equipment and service to customer, including prerequisite training
- Understanding of overall market area, technology environment and evolutions and contributions to that area
- Scope of partnerships and offerings, management capability for the needed orchestration within a customer project
- Openness of offering to avoid vendor lock-in
- Ability to provide full customer support and assistance post delivery
- Stability and roadmap planning of the provider
- Reference customer/solutions in post pilot/commercial deployment
- Competitiveness of offering and types of commercial terms

## Mobile Network (4G/5G) Additional (non-core) Services

Fifth-generation mobile networks or wireless systems (commonly known as 5G) are the next telecommunications standards after the current LTE (long-term evolution)/4G technology and operate in the millimeter wavebands (28, 38 and 60 GHz). 5G is designed to provide higher capacity than the current 4G, allowing a greater density of mobile broadband users at higher transfer speeds and supporting more device-to-device, reliable and massive machine communications. It is also aimed at lower latency and battery consumption than 4G equipment and is targeted at the mobile high-speed data and the Internet of things (IoT). This segment covers specific mobility-targeted services or solutions, applications, management systems and methods, end-device control and management and related services. These services are offered by service providers or suppliers, either as discrete solutions or as modules that will integrate with or rely on SDN or SD-WAN. We do not cover the core licensed mobile telephony/data services themselves.

This section covers all suppliers of these additional services that make use of SD systems via LTE/4G or 5G delivery.

Eligibility criteria:

- Product/service portfolio coverage and scope
- Ability to deliver as a value-added service within a 4G/5G environment utilizing SD methods
- Understanding of overall market area and innovations/contributions to that area
- Scope of partnerships and offerings integration into a coherent solution delivery to customers
- Stability and roadmap planning of the provider
- Reference customer/solutions in POC/post pilot/commercial deployment
- Competitiveness of offering and types of commercial terms

## Archetype Report

This strategic report supports improved awareness, knowledge and decision making on the capabilities and positioning of IT, network and business service providers. The new ISG Provider Lens™ Archetype studies provide a means to align sets of ISG-identified client requirements with known provider capabilities.

The report will identify four to six archetypes that represent buyer characteristics and buying requirements for IT, network or BPO service lines. It is:

- Globally focused
- Represents ISG Advisor perception of client buying patterns
- Non-prescriptive nor rank based
- Helps align buy-side needs with provider-side capabilities to reduce costs for both sides

Figure 1: Sample ISG Provider Lens™ Study Provider Listing

Traditional Archetype Archetype Leaders	Staff Augmentation Focus	T&M Pricing Focus	Packaged Technology Capabilities	Custom Development Focus
A	●	●	●	○
B	●	●	●	○
C	●	●	●	●
D	●	●	●	○
E	●	●	●	○
F	●	●	○	●
G	●	●	○	●
H	●	●	○	●

● Score 4 out of 4   
 ● Score 3 out of 4   
 ○ Score 2 out of 4   
 ○ Score 1 out of 4

# Schedule

The research phase falls in the period between **February and May 2020** during which the survey, evaluation, analysis and validation will take place. The results will be presented to the media in **July 2020**.

Milestones	Beginning	End
Launch	January 22, 2020	
Survey Phase	January 22, 2020	February 29, 2020
Sneak Preview	April 15, 2020	
Press release	June 2020	

Please refer to the following link to view/download the ISG Provider LensTM 2020 research agenda : [https://isg-one.com/docs/default-source/default-document-library/ipl-annual-plan-2020.pdf?sfvrsn=4948c631\\_2](https://isg-one.com/docs/default-source/default-document-library/ipl-annual-plan-2020.pdf?sfvrsn=4948c631_2)

## Research production disclaimer:

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

# Partial list of companies being invited for the survey

**Are you in the list or do you see your company as relevant provider that is missing here?** Then feel free to contact us to ensure your active participation in the research phase.

1&1	CenturyLink	euNetworks
A10 Networks	CGI	Extreme Networks
Accenture	China Telecom	FatPipe
Aerohive Networks	Cisco	Fortinet
Alcatel-Lucent	Citrix	Fujitsu
Allied Telesis	Claranet	GCX
América Móvil (KPN & Telekom Austria)	CloudGenix	GTT Communications
	Cognizant	GTT Interoute
Apcela	Colt	Harman
Arista	Comline	HCL
Aryaka	Computacenter	HPE
AT&T	Controlware	HPE Aruba
Atos	Damovo	Huawei
AWS	Dell EMC	IBM
Axians	Deutsche Telekom	Infosys
Belkin	Dimension Data	Juniper Networks
Bell Canada	DNA Oyj	KPN
Broadcom Brocade	DSI Ltd	L&T Technology Services
BT	DXC Technology	Logicalis
CANCOM	EE	Masergy
Capgemini	Enea	Microsoft
Cato Networks	Ensign Communications	M-net
Centrify	Ericsson	NetApp

NetCologne	Talari Networks	Viptela (Cisco)
Nordic Networks	TATA	Virgin Communications
NTT	TCS	Virtela NTT
NTT Communications	Tech Mahindra	VMware
NTT Data / Everis / Di.Data	Tele2	Vodafone
Nuage Networks	Telefónica	Wipro
O2	Telenor	Zayo Group
Optus	Telia Company	Zeetta Networks
Orange Business	Telia Company AB	ZTE
PCCW Global	Telstra	
Pica8	Telus	
Prodapt	Three	
QSC	Trend Micro	
Qualcomm	T-Systems + Telekom Deutschland	
Riedel Networks	Unisys	
Riverbed Technology	UST global	
Silver Peak	Verizon	
Sprint	Versa	
Swisscom	Versatel	
Symantec	Viprinet	

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Do you need any further information?

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