Critical Capabilities for Managed Network Services

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Initiatives: IT Services and Solutions

Automation, multivendor integrations and user experience stand at the forefront for selection criteria for managing network equipment and connectivity. Sourcing, procurement and vendor management leaders should use this research to determine which provider best fits specific use cases.

This Critical Capabilities is related to other research:

Magic Quadrant for Managed Network Services

View All Magic Quadrants and Critical Capabilities

Overview

Key Findings

- The market for managed network services (MNS) spans both network service providers (NSPs) and non-NSPs, which vary in size, operational maturity and reach. The biggest provider is not always the best choice.
- Certain providers are better suited for growing cloud deployments, work-at-home scenarios or specific verticals, such as financial, retail or healthcare.
- Although the management, usability and functionality of the providers' portals have improved, key differentiation, such as ease of navigation and portal view self-configuration, remains between providers.

Recommendations

Sourcing, procurement and vendor management (SPVM) leaders developing strategy and selection criteria for managed network services and solutions should:

- Optimize the cost of MNS deals by including a variety of provider types, including NSPs and non-NSPs, traditional and emerging providers, and providers of different sizes, during the RFP process — since delivery and support may vary.

- Determine vendor fit based on critical requirements, such as delivery, automation or customer experience, by evaluating capabilities across specific use cases.
- Identify the most important factors when selecting a provider by developing a vendor shortlist based on key attributes. These attributes may include user experience, escalation timeliness and time-to-cure SLAs, portal ease of use, process and methodology maturity, ability to address change, ongoing investment, and R&D in service automation.

What You Need to Know

Gartner defines MNS as providing an externally provided network operations center (NOC) life cycle service delivering on both the current and emerging needs of end users. All providers for MNS support multiple LAN and WAN edge product providers, inclusive of both legacy networking equipment and software-defined (SD) capabilities. MNS are remotely delivered services from the provider's NOC with a separate disaster failover site (backup NOC), while the NOC personnel are commonly deployed at the physical NOC location and/or deployed regionally. The providers in this research are either NSPs or non-NSPs, as both types are common in this market and have also met the requirement for delivering services on a global basis, beyond its own home country.

SPVM leaders will find key provider differentiators to include the level of support, network operations automation, service delivery expertise and, ultimately, the customer experience. As the enterprise invests in complex cloud, virtualization and IT infrastructure, careful consideration of these elements beyond simple managed device types is imperative. The MNS market and this specific research do not include network services (for example, WAN transport services), which are covered by the Critical Capabilities for Network Services, Global.

The MNS market consists of globally capable providers that offer service management functions for the operation of enterprise networks across two key managed network services:

- **MNS for LAN/WLAN services** include the management of all in-scope enterprise LAN customer premises equipment (CPE), inclusive of single point of contact (SPOC) ownership for the life cycle management of these devices.

- **MNS for WAN services** include the management of all in-scope enterprise site edge networking CPE (e.g., routers) and WAN transport management. These services provide life cycle management of site-edge CPE, such as routers and software-defined WAN (SD-WAN), inclusive of configuration management, software upgrades and maintenance. Additionally, MNS providers provide SPOC for troubleshooting ownership with all WAN transport services connecting client sites.

Beyond these two services, additional critical capabilities evaluated include:

- Service delivery platform (SDP)
- Service management functions
- Operations automation
- Customer experience management
- Professional services

MNS offers should all be available without requiring enterprises to buy any other products or services from the MNS provider, including any networking hardware and software or any network transport services. In fact, all providers in this research (NSPs and non-NSPs) reported that they do not require customers to purchase any products and services beyond MNS. Yet Gartner rarely observes this transport provider agnosticism from NSPs competing in the MNS market. In fact, our research reveals that NSPs rarely demonstrate interest in enterprise MNS opportunities that do not also include buying network transport services from them. If it is desirable to identify a full-service NSP with strong managed services, only seven carriers met Gartner's stringent criteria for inclusion in this research, and would be strong one-stop shop options.

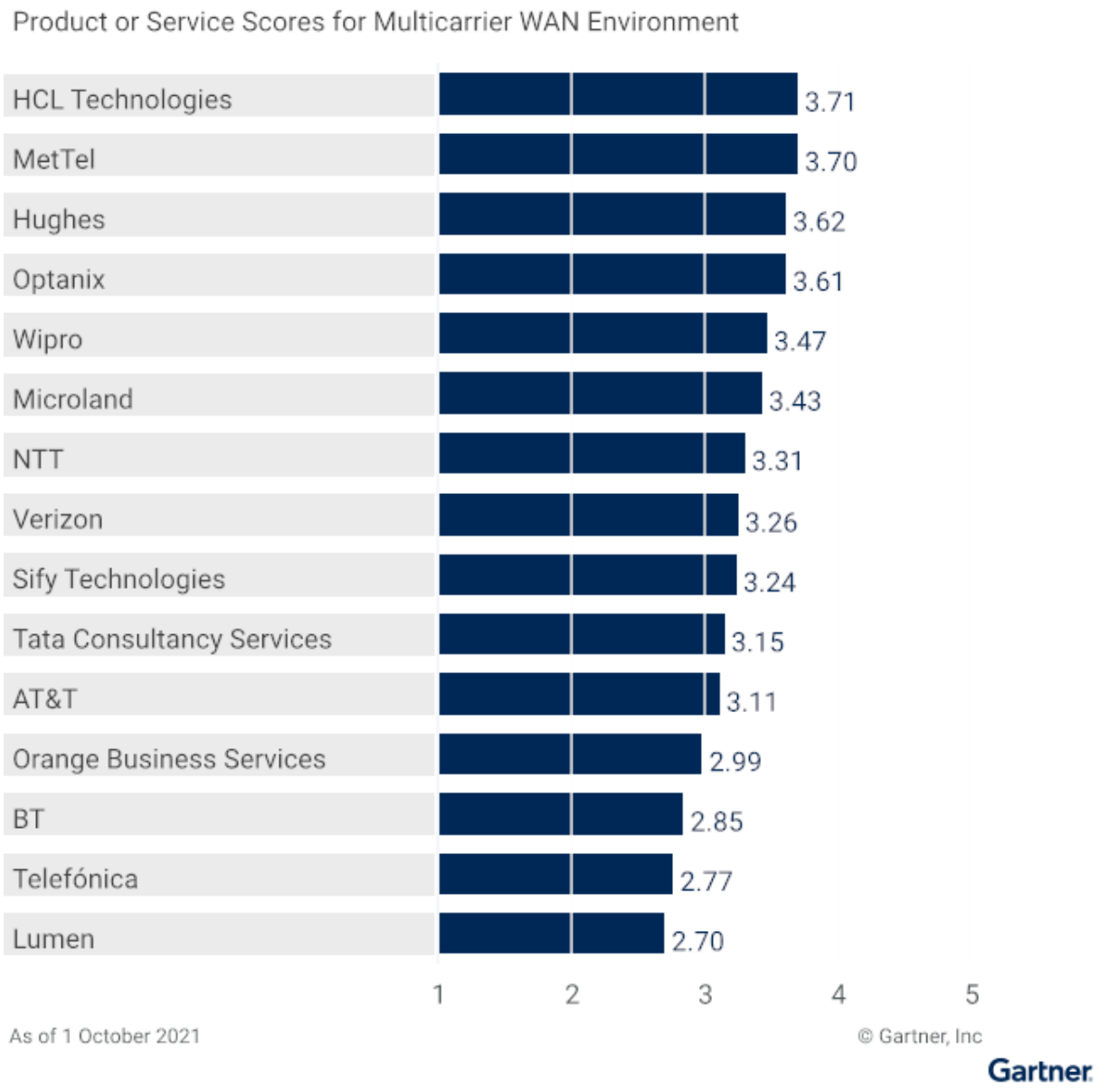
Several providers provide viable, good-enough offerings across multiple use cases, while others offer more developed offerings and support that elevate them higher on the use case ranking. However, there are substantial differences between providers' abilities to support the differing use cases, particularly overall competency and the heavy cloud and work-at-home (WAH) use cases. All critical capabilities are described in more detail later in the research.

Analysis

Critical Capabilities Use-Case Graphics

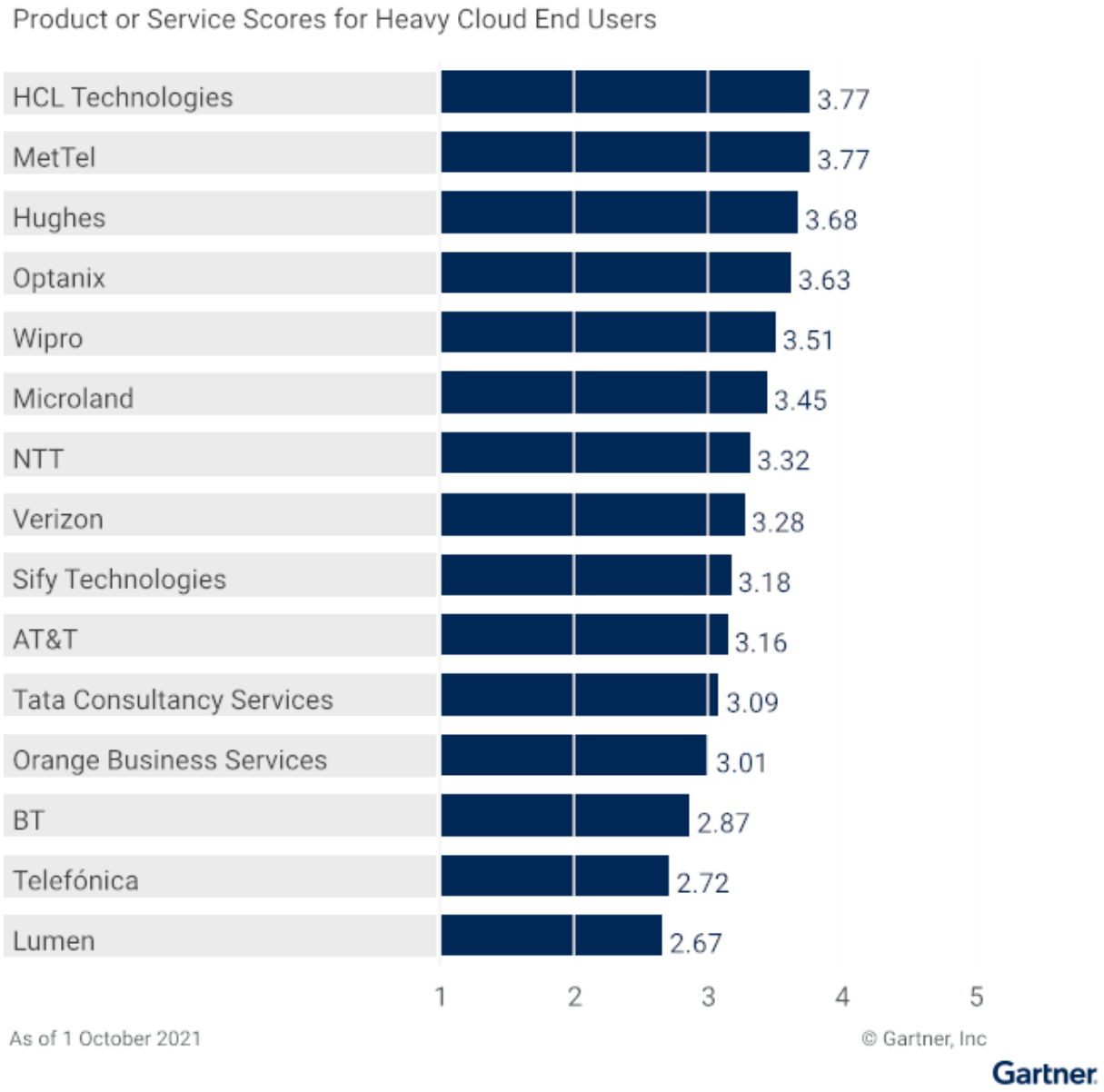
In this research, similar to last year, we assessed two specific vendor services and five management attributes that are critical to the delivery of managed network services. The two services are managed WAN and managed LAN/wireless LAN (WLAN), while the service attributes are service delivery platform, service management functions, operations automation, customer experience management and professional services. The five use cases use a weighted mix of the critical capabilities scores to establish a use-case rating.

Vendors' Product Scores for Multicarrier WAN Environment Use Case



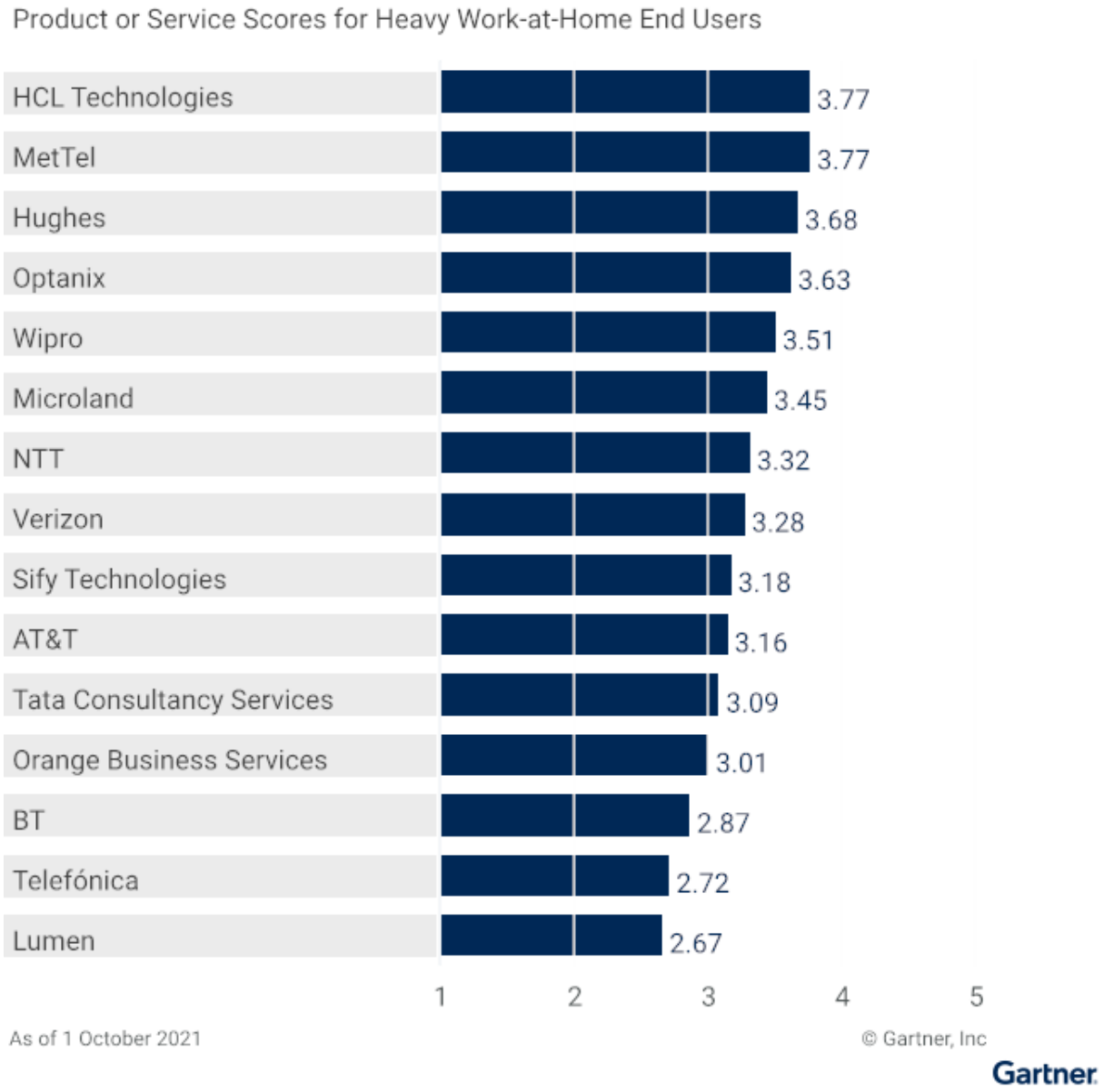
Source: Gartner (November 2021)

Vendors' Product Scores for Heavy Cloud End Users Use Case



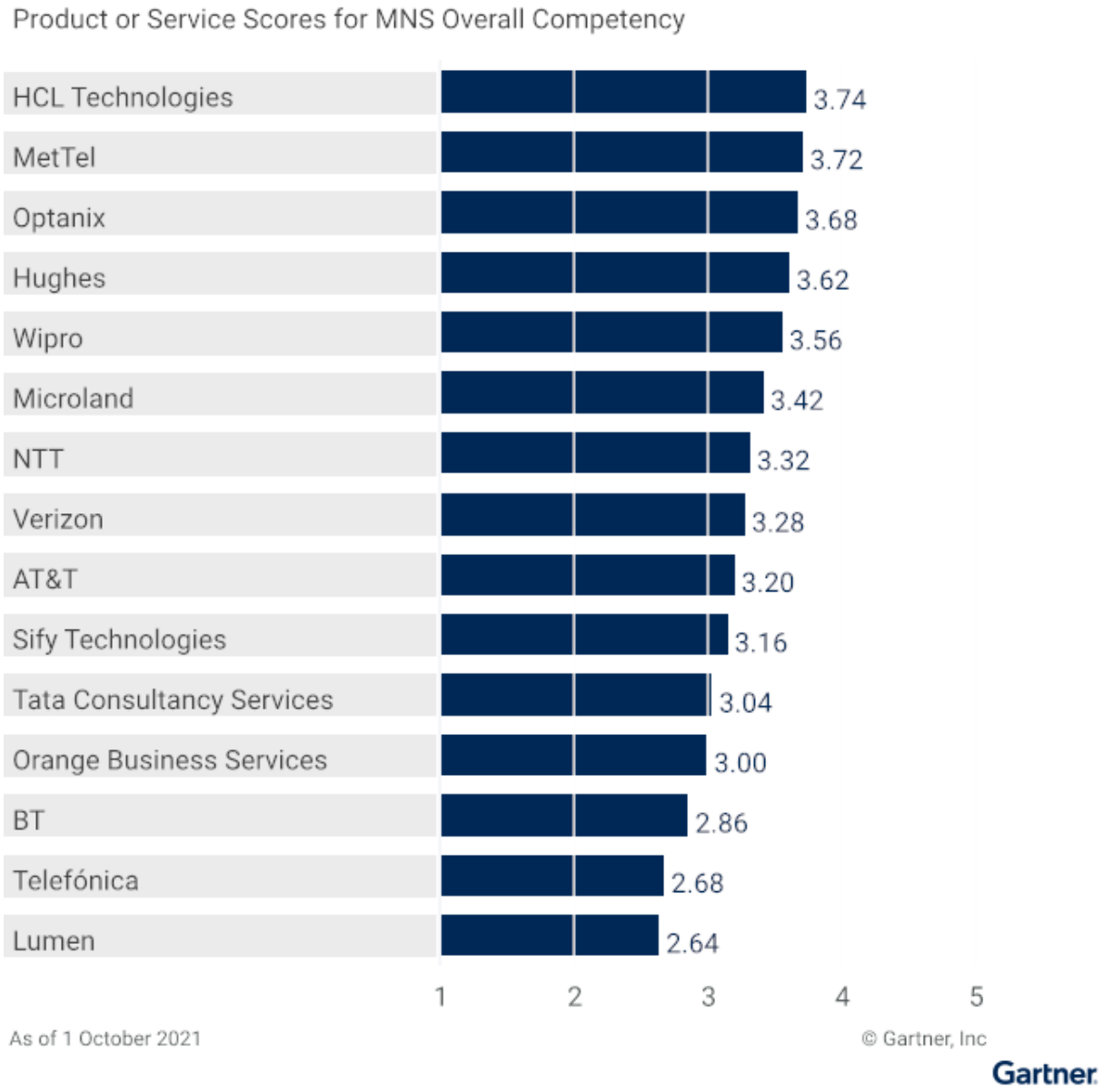
Source: Gartner (November 2021)

Vendors' Product Scores for Heavy Work-at-Home End Users Use Case



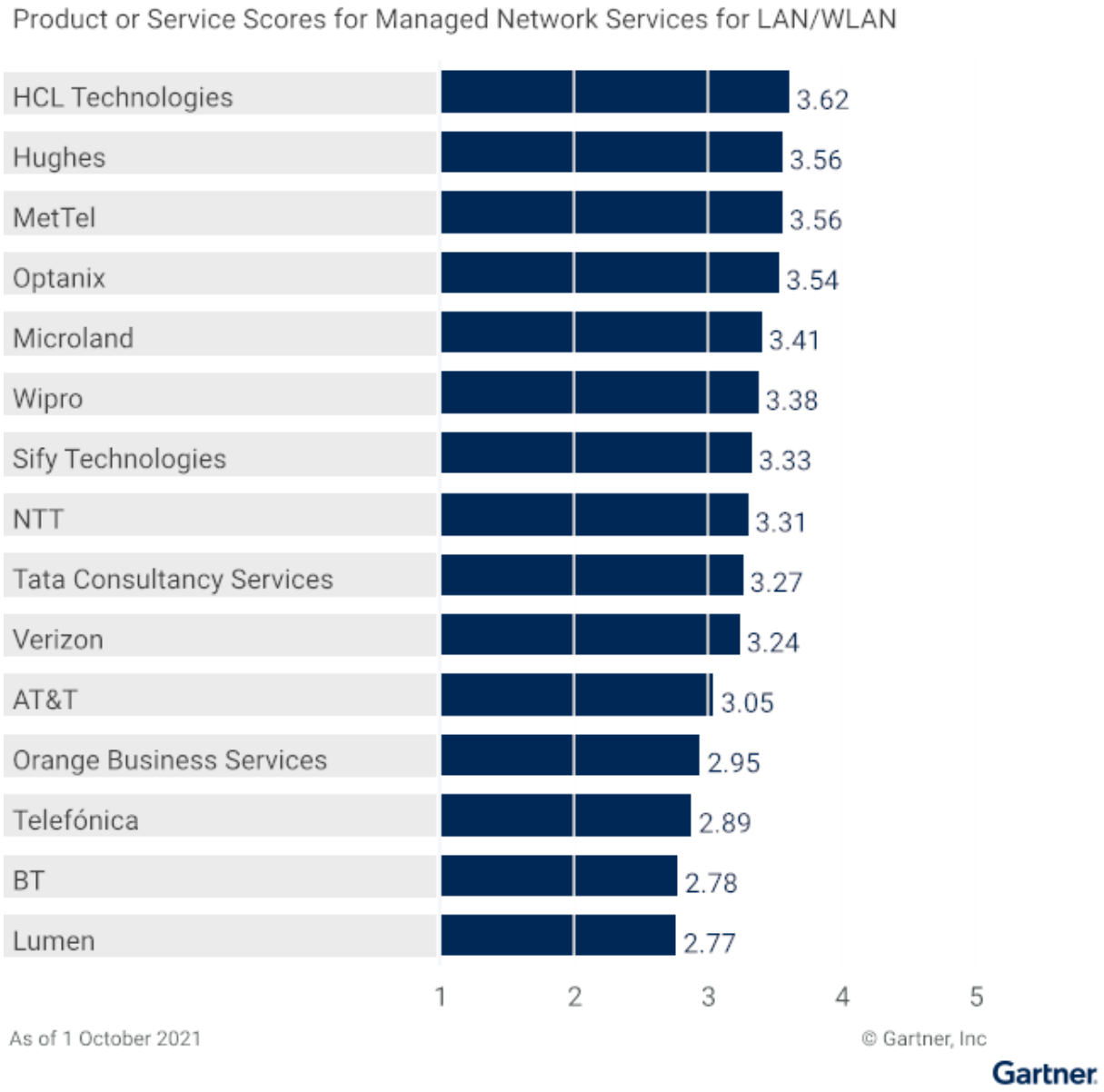
Source: Gartner (November 2021)

Vendors' Product Scores for MNS Overall Competency Use Case



Source: Gartner (November 2021)

Vendors' Product Scores for Managed Network Services for LAN/WLAN Use Case



Source: Gartner (November 2021)

Providers

AT&T

AT&T is based in Dallas, Texas, and Gartner estimates it manages over 1 million LAN and WAN endpoints globally across hundreds of thousands of customer sites. AT&T is well-positioned across manufacturing, healthcare, financial, retail and U.S. public-sector markets.

AT&T's managed services portfolio is centered around SD-WAN, either as an over-the-top approach or network-based, in addition to traditional device management. AT&T has two managed LAN offers: AT&T Business Wi-Fi and Managed LAN. The vendor supports clients with or without AT&T-provided transport connectivity. AT&T added a software-defined LAN offer to its MNS portfolio this year. AT&T supports many SD-WAN providers, including Ciena, Cisco, Juniper Networks and VMware, as well as its own Vyatta brand, though AT&T has announced its intention to sell Vyatta, which could impact service management. However, Gartner clients report that AT&T typically outsources its management, so prospective customers should discern who is actually performing the management and compare those providers' capabilities against others in this report.

AT&T remains a viable global network service provider and a good choice for large customers preferring a single provider sourcing option for both MNS and network services. AT&T should be considered as a managed network service provider where either far-reaching global presence is required or AT&T's vertical expertise is valued.

BT

BT is headquartered in London, U.K., and Gartner estimates it manages over 450,000 LAN and WAN endpoints globally across some 25,000 customer sites. BT's enterprise vertical focuses have been on banking and finance, transport, life sciences and business services and resources, and manufacturing and logistics.

BT offers its MNS for LAN and WAN along with its networking services offering, with broad support across LAN and WAN edge CPE OEMs. While based in the U.K., its focus is on global organizations, with 80% of existing customers in Europe, and it is continuing to grow its other target markets, such as North America and Asia/Pacific.

Large global enterprises interested in multivendor options across technology and service delivery packaging may find BT a good option. However, they may find that by using BT for MNS, BT will likely expect their own network services to be included.

BT did not participate in this research nor did they respond to requests for supplemental information. Gartner's analysis is therefore based on other credible sources, including client inquiry, past information shared by the vendor, reviewing public statements, the website and other publicly available data sources.

HCL Technologies

HCL Technologies is a technology product and services company headquartered in Noida, India. Gartner estimates it manages over 3.8 million LAN and WAN endpoints globally at more than 62,600 customer sites. HCL has demonstrated a strong competency with manufacturing, retail and healthcare customers.

HCL's strategy revolves around its two primary managed offerings for MNS WAN and LAN. HCL's WAN, Transport Independent Site (TIS), is a cloud-agnostic SD-WAN services framework. It dynamically routes and intelligently connects the global WAN infrastructure of the enterprise for diverse WAN environments including uCPE and network function virtualization (NFV) orchestration, cloud WAN, network edge backbone, secure cloud interconnects, and secure access service edge (SASE). Its LAN solution, Nucleus, is focused on campus network transformation, delivering managed LAN/WLAN, software-defined access network (SDAN), IAM, visibility, analytics and automation services as part of an agile and vendor-agnostic framework.

HCL is among the strongest providers of managed WAN and LAN services, and its managed LAN installed base is the largest of the providers we studied. HCL receives the highest scores for service delivery platform, service management functions, operations automation and customer experience management. The vast majority of its customer sites are located in Europe and the Americas. On use cases, it is the strongest across all use cases in this report, which makes HCL a strong choice for all enterprises.

Hughes

Hughes is headquartered in Germantown, Maryland, and Gartner estimates it manages over 1 million LAN and WAN endpoints globally across approximately 600,000 customer sites. Hughes specializes in highly distributed, geographically dispersed enterprises, with over 150 sites, most often found in retail banking, retail petroleum, restaurants and grocery organizations. Hughes also serves hard-to-serve locations, using its expertise in satellite, fixed wireless and 4G/LTE to serve government, utilities, and upstream oil and gas customers.

HughesON is a suite of end-to-end managed SD-WAN services, which includes MNS for both LAN and WAN. Its portfolio is designed to deliver managed WAN architectures for high performance and optimal application availability. With its continued focus on service improvement and enhancements to managed network services for both LAN and WAN, Hughes excels in nearly all the critical capabilities due to continued focus on automation, analytics and customer experience management. Hughes offers the highest levels of standardized MNS services, which reduces risk and improves service delivery to its customers. Hughes offers market-leading portals and continues to improve its customer satisfaction results and targeting new vertical industries such as government and defense, energy and utilities, financial services and healthcare. While nearly 80% of Hughes enterprise customers are in the U.S. market, its offerings and support span the globe.

Hughes excels across all the critical capabilities scores and use cases, but it tends to be more focused across its vertical expertise breadth. Hughes should be strongly considered for highly distributed managed networks, especially in retail, banking, healthcare and government.

Lumen

Lumen is based in Monroe, Louisiana. Gartner estimates it manages just under 500,000 LAN and WAN endpoints globally across approximately 18,000 customer sites, with 90% of managed LAN sites and 95% of WAN sites located in North America. Approximately 75% of its MNS base is standard (versus custom) offers. Today, it manages about 10 times more WAN than LAN sites — its managed LAN installed base is one of the smallest among the providers in this report.

Lumen's MNS portfolio includes a number of standard and customer offers supported by several key hardware providers, though focused around Cisco and Versa. While Lumen typically targets traditional MNS, it has been successful leading with managed SD-WAN solutions, which provide centralized, streamlined cloud management for security, networking and application control. This helps to reduce operational costs and to improve resource usage for multisite deployments via a single, easy-to-use online portal.

In 2021, Lumen scored notably lower than peers on all product attributes and use cases studied in this report. For example, its portal functionality lags those of many other providers. MNS SLAs and service credits trail those of leading providers. Like most other NSPs in this report, its focus on its core network services business has impeded its ability to keep pace with non-MSPs on MNS capabilities. Lumen is a good fit for enterprises focused on managed services for their WAN, with little to no requirements for the LAN.

MetTel

MetTel is based in New York City, and Gartner estimates it manages nearly 200,000 LAN and WAN endpoints globally across approximately 43,000 customer sites. Leading with managed SD-WAN, MetTel offers both MNS for LAN and WAN services that are targeted at all enterprises, while not targeting any specific vertical industries.

MetTel's multivendor options provide strong choices for enterprises, based on product breadth and feature choices. MetTel also offers multiple access support options as a wireline and wireless aggregator. MetTel delivers its core MNS for LAN and WAN with end-to-end visibility support through its Intelligent Process Automation (IPA) platform, which provides service context. It also focuses on customer experience, quality and automation for effective management of service components for enhanced customer experience. MetTel has made significant investments to provide greater granularity around application performance reporting and customized on-demand reporting for clients, which aligns with its automated and proactive ticketing platform. MetTel has also introduced an initial managed SASE stack starting with zero trust network access (ZTNA). While continuing to expand its footprint for support, approximately 95% of MetTel's sales success has been in the U.S. market, but it provides a global footprint for current and new customers as required.

MetTel has a strong track record for managed network services and should be considered for all scenarios and opportunities, as it scored well across all critical capabilities and use cases, especially in the U.S.

Microland

Microland is based in Bengaluru, India, and Gartner estimates it manages over 149,000 LAN and WAN endpoints globally across approximately 6,000 customer sites fairly distributed across North America, Europe and Asia. Microland is focused on manufacturing, energy and utilities, healthcare, and retail enterprises.

Microland offers complete managed network service offerings for enterprises across various LAN, as well as WAN edge OEM products and technologies, and markets its offerings as smartBranch, which covers enterprise WAN and LAN environments. The provider has excellent service management, automation and customer experience quality capabilities, undergirded by a very mature continual service improvement program. Microland's customer portal maintains consistent data accuracy for configuration management databases (CMDBs) and case management while leveraging high service quality assurance and management reporting. Microland has continued to invest in automations and artificial intelligence for IT operations (AIOps) to gain additional operational efficiencies for improved service assurance and transformation acceleration, especially for legacy to SD-WAN migrations.

Though smaller than others in terms of customer sites, Microland performs very well across all use cases and should be strongly considered for its MNS capabilities by enterprises of all types.

NTT

NTT is headquartered in Tokyo, and Gartner estimates it manages over a couple million LAN and WAN endpoints globally. NTT's managed network service offers an extensive geographic footprint coupled with a large, experienced, globally deployed workforce, and focuses across verticals including retail, healthcare and manufacturing opportunities.

NTT managed network services are available for both LAN and WAN, and provide the enterprise with a full range of services including design, deploy and management for multivendor environments. It offers strong LAN migration capabilities and management capabilities for remote workers. With strong portal capabilities, NTT offers a comparatively high level of automation and CMDB synchronization, with good first-call resolution statistics. The majority of its enterprise clients use standard managed services; relatively few are served by custom offers. It employs a combination of synthetic and real-time monitoring to assess network and application performance management. NTT remains a leader in terms of SLAs and consistently good customer satisfaction. NTT has expanded its artificial intelligence (AI) and deep-learning technology and methods to detect WAN and LAN network performance issues and enhanced its network analytics for deeper visibility into managed SD-WAN and LAN services. NTT also provides SD-WAN integrated with SASE and ZTNA to its customers.

Of the NSPs, NTT scores highest across all the use cases and should be considered by enterprises of all sizes and types. While SLA credits can be generous, the service credit estimation remains overly complex.

Optanix

Optanix is based in New York City, and Gartner estimates it manages over 76,000 LAN and WAN endpoints globally across approximately 21,000 customer sites. It remains highly focused on healthcare, financial, energy, manufacturing and retail opportunities, primarily in the U.S. and through its channel partners.

Optanix provides a leading, standardized, highly automated MNS platform for LAN and WAN edge, with further adjacency strengths for infrastructure supporting on-premises and private cloud voice and video platforms for unified communications, collaboration and contact centers. Its internally created SDP is a combination of real-time integrated tools, including IT service management (ITSM), IT infrastructure management, AIOps, and network performance monitoring and diagnostics capabilities. The provider's service delivery platform aims to maintain constant data accuracy, while its highly flexible portal includes real-time views of network state, topology and performance analytics. Enhancements to surveillance and real-time monitoring for performance analytics have been the primary focus. To further enrich its platform's monitoring capabilities, Optanix has made investments in forensic path analysis. It includes a Business Impact Monitoring dashboard used to match client vernacular in applications, services or business units for management insights.

While small in size in comparison to other providers in this research, and less known, Optanix scored near the top for all the use cases. Its customers are mostly in the U.S., though it has demonstrated some delivery and management of sites in both Europe and Asia. Optanix should be strongly considered for its MNS capabilities by enterprises of all types.

Orange Business Services

Orange Business Services (Orange) is based in Paris, and Gartner estimates it manages over 900,000 LAN and WAN endpoints globally across approximately 41,000 customer sites, while 90% of managed LAN and WAN sites are in Europe.

Among providers in this report, Orange scores near the industry average on all five use cases. On product attributes, Orange scores near the average on service delivery, service management and operations automation, as it primarily uses commercial off-the-shelf tooling, primarily from network product providers, with integrations to its internal ITSM tool. Robotics operations and AIOps analytical tools are available options to select managed services.

On key product criteria, Orange scores below average on customer experience management, professional services, managed WAN and managed LAN/WLAN. Like most other NSPs in this report, Orange's focus on its core network services business has impeded its ability to keep pace with non-MSPs in modernizing its ITSM platform. For example, it has a low percentage of incidents that are resolved entirely via automation (absent any human touch). Managed SD-WAN service relies on uCPE and NFV; in addition to fully managed service, co-management is an option. Orange is a good fit for enterprises whose endpoints are predominantly in Europe.

Sify Technologies

Sify Technologies (Sify) is based in Chennai, India. Gartner estimates it manages nearly 135,000 LAN and WAN endpoints globally across approximately 36,000 customer sites. Over 95% of MNS customer sites are located in the Asia/Pacific region, with a special focus on the Indian market.

Sify's MNS portfolio centers around its Managed SD-WAN services, Managed Network Operations Center (NOC) services, Secure RoamConnect for a managed work-at-home solution for remote workers and Edge Connect for managed Wi-Fi services. While heavily successful with its Asia/Pacific customer base, it can deliver service throughout the global market. The research also uncovered highly competitive prices in comparison to others. Among providers in this report, Sify scores near the industry average on all use cases. On product attributes, it also scores near the average on all critical capabilities.

Among the providers in this report, this provider has a low percentage of incidents that are resolved entirely via automation (absent any human touch). Sify is a good fit for clients looking for managed services predominantly in the Asia/Pacific region.

Tata Consultancy Services

Gartner estimates that Tata Consultancy Services (TCS), which is based in Mumbai, India, manages nearly 2.7 million LAN and WAN endpoints globally across approximately 20,000 customer sites. Its customer base is fairly evenly divided between Europe, Asia/Pacific and the Americas across varied industries and vertical markets.

The TCS managed network services portfolio includes a number of solutions, highlighted by its MNS for LAN/WAN, SD-WAN, managed SASE and network as a service (NaaS), including adjacent environments. The TCS Network as a Service (TNaaS) platform can connect to multiple SD-WAN platforms, provide a correlative view across the enterprise and present single-pane-across-network elements. Rules are designed to eliminate any noise or duplicate alerts and events. Customers can also create custom rules to identify the correlated events. The vendor's capacity management capabilities are mature and exhibit a proactive approach that is configurable for different industry verticals. And while TCS MNS pricing is among the lowest compared to other vendors' standard offerings in this research, the portal functionality and reporting lags its peers. Currently, TCS does not support co-managed SD-WAN services.

Among providers in this report, TCS scores near the industry average on all five use cases. On product attributes, it also scores near the average on service delivery platform, service management functions, operations automation, professional services, managed WAN and managed LAN/WLAN services. Compared to other providers in this report, TCS scores below average on customer experience management. Among the providers in this report, it reports a high percentage of incidents that are resolved entirely via automation (absent any human touch). Due to its farther-reaching geography experience, TCS is a good fit for enterprises spanning many geographies.

Telefónica

Telefónica is based in Madrid, Spain. Gartner estimates it manages over 2.6 million LAN and WAN endpoints globally across approximately 330,000 customer sites. Its managed WAN installed base is the largest of providers studied in this report, and its managed LAN base is one of the largest. The vast majority of managed LAN and WAN sites are located in the Americas and EMEA; there are very few sites in Asia/Pacific. Telefónica focuses on priority sectors like retail, manufacturing, travel and banking, and more recently, education and health.

Telefónica has positioned its offering around managed LAN/WLAN, WAN and SD-WAN. Its focus has most recently been with enhancements for WAH capabilities, including remote access service, corporate Wi-Fi and SD-WAN. Its services include a robust web portal for a full range of monitoring and reporting, service management, and application visibility through a single pane of glass.

Among the providers in this report, Telefónica is consistently among the lowest in both critical capabilities product attributes and subsequently in supporting use cases. Its default go-to-market strategy includes multiple managed SD-WAN, though customers in need of nonstandard elements may end up with higher costs and risk, and lower service delivery. It is one of the few NSPs in this report to embrace over-the-top management offers. Telefónica has a very high first call resolution rate, but at present it has a low percentage of incidents that are resolved entirely via automation (absent any human touch). Telefónica is a good choice, especially for enterprises with sites well within the Americas and EMEA.

Verizon

Verizon is based in New York City and Gartner estimates it manages over 1 million LAN and WAN endpoints globally across approximately 353,000 customer sites in varied industries and vertical markets.

Verizon offers a wide range of management options for clients — from fully outsourced end-to-end management to a co-management option (SD-WAN only). It offers a comparably wider array of adjacencies for other services not included in this report, such as managed security services. Verizon's large geographic footprint is complemented by an equally large and experienced, globally deployed workforce in support of its MNS portfolio. It employs a combination of synthetic and real-time monitoring to assess network and application performance management, and offers mature professional services, service delivery and service management functions. Verizon has made strides in developing its NaaS and co-managed models to increase options available to its customers. It has also increased automation to deliver a consistent experience with configuration and policy management, in addition to incorporating AI and machine learning for improved operational efficiencies.

Verizon scores at the overall industry average on all use cases, though higher than most of the NSPs. Enterprises looking for a provider with a strong global network should consider Verizon's managed services.

Wipro

Wipro is based in Bengaluru, India, and Gartner estimates it manages over 380,000 LAN and WAN endpoints globally across approximately 27,000 customer sites spread around the world. Its target market stands to be broader than most, as it is focused on banking, financial services and insurance, consumer, energy, natural resources, utilities and construction, manufacturing, healthcare, and technology opportunities.

Wipro's delivery platform supports a wide range of LAN and WAN edge devices, in addition to adjacent market network elements. Its differentiated platform automation uses cognitive and machine learning for incident resolution efficiency. Wipro also offers co-management capabilities with use case support for enhancing user experiences on Wi-Fi. Wipro's automation use cases for driving network self-healing are enabled by its HOLMES platform bots, which also maintain CMDB accuracy and inform network life cycle management methods. Wipro's HOLMES capabilities also provide strong end-to-end monitoring of user experience and self-healing of services running at endpoints. Wipro has also added a SASE framework to its SD-WAN offering.

Wipro's customer portal remains a highlight, with ease of navigation and real-time insights to observe and manage service delivery quality across service management functions and self-service use cases. It makes extensive use of automation bots, including support for application-based SLAs, for detection, triage and reporting on application performance. Wipro's scores are in the top quartile across all use cases, and should be considered by all.

Context

This research assesses managed network services for a range of use cases. Providers covered in this research are either network service providers or non-NSPs. Ideally, an MNS solution should be available to the enterprise without the requirement to buy any other products or services from the MNS provider, including any networking hardware/software or any network transport services.

Gartner estimates that over 70% of the global market subscribes to MNS for WAN, though there are regional differences in adoption of MNS for WAN. For example, Gartner estimates that 40% of the North American market subscribes to MNS. This contrasts with other regions, such as Europe and Asia/Pacific, that bring up the global average, since we estimate 80% MNS for WAN adoption in those markets. This has not changed over the last two decades, and we expect it will continue for the next five years. Overall, there is small growth for the total managed services space — compound annual growth rate (CAGR) of 2% through 2024 — but varies across traditional MNS for LAN and WAN compared to managed SD-WAN. In fact, the market opportunity and competition around managed SD-WAN services grow in parallel and will show a 53.1% CAGR through 2024, or doubling from its 2021 revenue of $3.9 billion to an $8.3 billion market.

Once again, several key observations emerged from providers' responses, Gartner analysis and MNS customer feedback. As a result, scoring across the critical capabilities reflects a keen eye to the relative maturity as well as innovation and competitiveness relative to the group of respondents. What is clear is that the value, differentiation and focus have shifted from watching hardware to improved service portals, timely responsiveness and multivendor integration for the enterprise considering an MNS supplier. Therefore, this research should be carefully weighed both to inform an understanding of what "good" looks like and to provide evaluation criteria for choosing the optimal provider.

Product/Service Class Definition

Providers covered in this research provide managed network services to enterprise organizations. These service management functions for the operation of enterprise networks for managed network services are specific for both the LAN and the WAN. Furthermore, providers have continued to extend network policy, responsiveness, visibility and management capabilities into network infrastructure for increased differentiation.

Critical Capabilities Definition

Service Delivery Platform

Service delivery platforms are the application tool infrastructure and integrations supporting service delivery of the provider's MNS offerings. An MNS provider's SDP is designed to allow the standardized, high-quality and scalable delivery of MNS to enterprise customers.

The SDP comprises the multitenant architecture consisting of hardware, software, applications, security and scalability components of the provider's infrastructure for delivering MNS. The platform's core purpose is the delivery of service management and service assurance capabilities to support the provider's MNS offers.

Service Management Functions

MNS service management refers to the entirety of life cycle functional process activities supported by tool-based workflows, automation and customer support mechanisms performed by MNS providers. The service management functions are typically aligned to the ITIL framework.

Operations Automation

For MNS, automation is the key to the efficiency and quality of service delivery platform at scale. Importantly, automation is critical to maintaining service delivery quality and positive customer experience from provider MNS offerings.

As a result, operations automation includes the automation of tasks and activities related to the service delivery platform, service management functions and customer experience management to achieve consistent MNS delivery quality.

Customer Experience Management

High-quality MNS customer experience is possible when supported by the appropriate SDP with high degrees of automation and response time frames.

Customer service portals (delivered in near real time) and associated capabilities remain instrumental for the providers. Therefore, portals must comprise all customer support management functions and business impact reporting, such as customer portal functions, customer management, service requests, network performance, case management, customer co-management, provider and network operations performance (including KPIs and SLAs).

Professional Services

Professional services include labor or nonrecurring project fee-based services for MNS nonproject work (such as move, add, change or delete) that may not already be included in device-based monthly recurring fees and statement-of-work-based networking project work supporting MNS delivery.

Services include design consultation, service request management, migration support, and proactive process and service improvements throughout the life of the contract.

Managed WAN Services

Managed WAN services include the management of all in-scope site edge networking CPE. These services include managed router and managed SD-WAN services, and SPOC for all WAN transport services connecting these sites.

Leading network product OEMs are readily supported by all MNS providers, and all included providers offer MNS support for at least two or more OEM site-edge products. In the cases of MNS provider-developed and integrated appliance or universal (virtual) customer premises equipment (uCPE)-based platforms, multiple technology combinations are possible on the same platform for routing, SD-WAN and firewalls. All providers offer some breadth of management options, while some offer co-management.

Managed LAN/WLAN Services

Managed LAN/WLAN services are inclusive of a single point of contact for the management of all in-scope LAN CPE OEMs.

Managed LAN/WLAN services offered by the providers include all common LAN components, including access points, switching and wireless LAN controllers (WLCs). Beyond these core components, most any LAN-connected IP networking device can be monitored and maintained by many MNS providers.

Use Cases

Multicarrier WAN Environment

This use case is most common for those with high-availability requirements for mission-critical sites where two different carriers are used for the WAN transport connections.

This enterprise utilizes more than one network service provider for its network connectivity. This enterprise requirement is most common for, but not limited to, SD-WAN deployments where sites use two or more carrier transport connections to the customer site. The connections can be any two combinations of internet, Multiprotocol Label Switching (MPLS) and/or wireless for transport. In these environments, there are commonly one or two primary NSPs across the enterprise for one transport type (such as MPLS or internet), then the second circuit is most commonly an internet circuit where an enterprise often has many ISPs across the WAN estate for access diversity purposes. This use case includes multicarrier troubleshooting SPOC capabilities for incident management and service operations performance and visibility in the assurance of overlay/underlay WANs, in addition to the MNS provider customer portal capabilities.

Heavy Cloud End Users

This use case addresses the hybrid distribution of workload placement (public or private) typical of today’s enterprise networks.

The enterprise has designed the WAN around heavy cloud applications (40% or more of its workloads are in the cloud). Applications may be accessed across multiple service providers in addition to considerations of on-premises or private cloud-based applications. This use case includes key LAN and WAN performance monitoring and automation capabilities, in addition to end-user experience monitoring capabilities and provider visibility into cloud service provider platforms.

Heavy Work-at-Home End Users

This use case addresses the growing requirement for work-at-home network connectivity.

An enterprise that has a critical percentage (50% or greater) of its workforce working from home requires support of these remote configurations. Gartner's most recent remote worker forecast sees 20% to 25% of teleworkers permanently at home by 2025 (pre-COVID-19 was 6%); the rest (75% to 80%) will be hybrid. This use case includes a focus on end-user experience monitoring and management, in addition to capabilities to monitor home-site edge CPE performance.

MNS Overall Competency

This use case is focused on the management and service quality attributes related to MNS and includes all weighted scores associated with the five management elements.

This use case is a measurement of overall provider competency for delivering MNS for LAN/WLAN and WAN.

Managed Network Services for LAN/WLAN

This use case is focused on the management and service support of the LAN or WLAN environment.

Therefore, the scoring/weighting is primarily for the actual managed network services for LAN/WLAN, but also includes the service elements that can be customized to the enterprise requirements. This use case typically includes a single point of contact for the management of all in-scope LAN CPE OEMs.

Providers Added and Dropped

Added

HCL Technologies, Lumen, Orange Business Services, Sify Technologies, Tata Consultancy Services and Telefónica were added.

Dropped

IBM reported that it does not have MNS offers that meet enterprise requirements for this market specifically related to standardized offer packaging. As a result, IBM was dropped.

Inclusion Criteria

Providers in this report had to meet the following criteria:

- Providers in this Critical Capabilities must provide generally and globally available enterprise MNS as of 1 June 2021, including any new offerings related therein.

- Providers must provide MNS to enterprises for networking products and related network services on a 24/365 basis for customer locations.
- Providers must provide MNS for network operations and life cycle management operations of networking hardware/software in support for both LAN and WAN technologies as defined by the MNS market definition.
- Providers must operate a multitenant service delivery platform for customers of the MNS.
- Providers must offer services for customer's existing LAN and WAN environments (for example, in "brownfield" environments, or a managed takeover), in addition to evolving LAN and WAN customer environments adopting updated networking technologies.
- Providers must offer both MNS for LAN and MNS for WAN on a global basis in at least three of these six regions: North America, Europe, Asia/Pacific, Middle East, Africa and Latin America.
- Providers must offer and provide a fixed monthly subscription fee for each device managed for enterprise customers of both MNS for LAN and MNS for WAN offerings.
- Providers must have a minimum of 500 customer sites for MNS for LAN and at least 1,000 customer sites for MNS for WAN (under active MNS contracts). Specific site-level customer data (for example, quantities of devices) is required to be included in this research.
- Providers' MNS service management processes and tools must achieve a minimum average of 70% first-contact resolution for all incidents, regardless of whether manual or automated. Specific percentage attainment and underlying methods details are required to be included in this research.
- Providers' MNS service management processes and tools must achieve a minimum average of 10% first-contact resolution for all incidents via automation (no manual touch). Specific percentage attainment and underlying methods details are required in order to be included in this research.

Table 1: Weighting for Critical Capabilities in Use Cases

(Enlarged table in Appendix)

Critical Capabilities	*Multicarrier WAN Environment*	*Heavy Cloud End Users*	*Heavy Work-at-Home End Users*	*MNS Overall Competency*	*Managed Network Services for LAN/WLAN*
Service Delivery Platform	15%	15%	15%	20%	10%
Service Management Functions	15%	10%	10%	20%	10%
Operations Automation	20%	30%	30%	20%	10%
Customer Experience Management	15%	25%	25%	20%	10%
Professional Services	10%	5%	5%	20%	10%
Managed WAN Services	25%	15%	15%	0%	0%
Managed LAN/WLAN Services	0%	0%	0%	0%	50%
As of 1 October 2021					

Source: Gartner (November 2021)

This methodology requires analysts to identify the critical capabilities for a class of products/services. Each capability is then weighted in terms of its relative importance for specific product/service use cases.

Each of the products/services that meet our inclusion criteria has been evaluated on the critical capabilities on a scale from 1.0 to 5.0.

Critical Capabilities Rating

Table 2: Product/Service Rating on Critical Capabilities

(Enlarged table in Appendix)

Critical Capabilities	AT&T	BT	HCL Technologies	Hughes	Lumen	MetTel	Microland	NTT	Optanix	Orange Business Services	Sify Technologies	Tata Consultancy Services	Telefónica	Verizon	Wipro
Service Delivery Platform	3.2	2.9	3.8	3.5	2.7	3.6	3.6	3.3	3.5	3.2	3.4	3.3	2.6	3.3	3.4
Service Management Functions	3.2	2.8	3.8	3.7	2.7	3.9	3.5	3.2	3.7	3.0	3.1	3.0	2.6	3.3	3.6
Operations Automation	3.2	2.9	3.9	3.8	2.5	3.9	3.4	3.3	3.7	3.0	3.0	2.9	2.6	3.2	3.6
Customer Experience Management	3.3	2.9	3.8	3.8	2.7	3.9	3.5	3.4	3.7	3.0	3.1	3.0	2.7	3.4	3.6
Professional Services	3.1	2.8	3.4	3.3	2.6	3.3	3.1	3.4	3.8	2.8	3.2	3.0	2.9	3.2	3.6
Managed WAN Services	2.8	2.8	3.5	3.5	2.9	3.5	3.4	3.3	3.4	2.9	3.5	3.5	3.1	3.2	3.2
Managed LAN/WLAN Services	2.9	2.7	3.5	3.5	2.9	3.4	3.4	3.3	3.4	2.9	3.5	3.5	3.1	3.2	3.2
As of 1 October 2021															

Source: Gartner (November 2021)

Table 3 shows the product/service scores for each use case. The scores, which are generated by multiplying the use-case weightings by the product/service ratings, summarize how well the critical capabilities are met for each use case.

Table 3: Product Score in Use Cases

(Enlarged table in Appendix)

Use Cases	AT&T	BT	HCL Technologies	Hughes	Lumen	MetTel	Microland	NTT	Optanix	Orange Business Services	Sify Technologies	Tata Consultancy Services	Telefónica	Verizon	Wipro
Multicarrier WAN Environment	3.11	2.85	3.71	3.62	2.70	3.70	3.43	3.31	3.61	2.99	3.24	3.15	2.77	3.26	3.47
Heavy Cloud End Users	3.16	2.87	3.77	3.68	2.67	3.77	3.45	3.32	3.63	3.01	3.18	3.09	2.72	3.28	3.51
Heavy Work-at-Home End Users	3.16	2.87	3.77	3.68	2.67	3.77	3.45	3.32	3.63	3.01	3.18	3.09	2.72	3.28	3.51
MNS Overall Competency	3.20	2.86	3.74	3.62	2.64	3.72	3.42	3.32	3.68	3.00	3.16	3.04	2.68	3.28	3.56
Managed Network Services for LAN/WLAN	3.05	2.78	3.62	3.56	2.77	3.56	3.41	3.31	3.54	2.95	3.33	3.27	2.89	3.24	3.38
As of 1 October 2021															

Source: Gartner (November 2021)

To determine an overall score for each product/service in the use cases, multiply the ratings in Table 2 by the weightings shown in Table 1.

Evidence

- Research drew from Gartner client inquiries on the topic of networking, network operations and managed network services for LAN and for WAN, between 1 August 2020 and 1 August 2021.
- Market size forecast sources are from Forecast Analysis: Enterprise Managed Communications Services Growth Trends, Worldwide.
- In 2021, all providers (except one) included in this research responded to an extensive questionnaire regarding their current/future managed network service offerings.
- We reviewed all end-customer Peer Insights for quality purposes. All providers in this research had the opportunity to encourage customer peer reviews, though some vendors had zero reviews.
- Gartner reviewed public-facing materials from providers, including websites, financial statements, blogs and technical spec sheets.

Critical Capabilities Methodology

This methodology requires analysts to identify the critical capabilities for a class of products or services. Each capability is then weighted in terms of its relative importance for specific product or service use cases. Next, products/services are rated in terms of how well they achieve each of the critical capabilities. A score that summarizes how well they meet the critical capabilities for each use case is then calculated for each product/service.

"Critical capabilities" are attributes that differentiate products/services in a class in terms of their quality and performance. Gartner recommends that users consider the set of critical capabilities as some of the most important criteria for acquisition decisions.

In defining the product/service category for evaluation, the analyst first identifies the leading uses for the products/services in this market. What needs are end-users looking to fulfill, when considering products/services in this market? Use cases should match common client deployment scenarios. These distinct client scenarios define the Use Cases.

The analyst then identifies the critical capabilities. These capabilities are generalized groups of features commonly required by this class of products/services. Each capability is assigned a level of importance in fulfilling that particular need; some sets of features are more important than others, depending on the use case being evaluated.

Each vendor's product or service is evaluated in terms of how well it delivers each capability, on a five-point scale. These ratings are displayed side-by-side for all vendors, allowing easy comparisons between the different sets of features.

Ratings and summary scores range from 1.0 to 5.0:

1 = Poor or Absent: most or all defined requirements for a capability are not achieved

2 = Fair: some requirements are not achieved

3 = Good: meets requirements

4 = Excellent: meets or exceeds some requirements

5 = Outstanding: significantly exceeds requirements

To determine an overall score for each product in the use cases, the product ratings are multiplied by the weightings to come up with the product score in use cases.

The critical capabilities Gartner has selected do not represent all capabilities for any product; therefore, may not represent those most important for a specific use situation or business objective. Clients should use a critical capabilities analysis as one of several sources of input about a product before making a product/service decision.

Document Revision History

Critical Capabilities for Managed Network Services - 10 November 2020

Recommended by the Authors

Some documents may not be available as part of your current Gartner subscription.

How Products and Services Are Evaluated in Gartner Critical Capabilities

Magic Quadrant for Managed Network Services

Magic Quadrant for Network Services, Global

Critical Capabilities for Network Services, Global

Use SD-WAN to Drive Increased Flexibility in Managed WAN Services

How to Cut WAN and Internet Costs During a Crisis Such as COVID-19

Toolkit: RFP Template for Managed and DIY SD-WAN Products and Services

Toolkit: RFP Template for Managed Network Services

Five Ways to Save Money and Improve Performance When Sourcing Managed Network Services

5 Options to Secure SD-WAN-Based Internet Access

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Customer Experience Management	15%	25%	25%	20%	10%
Professional Services	10%	5%	5%	20%	10%
Managed WAN Services	25%	15%	15%	0%	0%
Managed LAN/WLAN Services	0%	0%	0%	0%	50%
As of 1 October 2021					

Source: Gartner (November 2021)

Table 2: Product/Service Rating on Critical Capabilities

Critical Capabilities	*AT&T*	*BT*	*HCL Technologies*	*Hughes*	*Lumen*	*MetTel*	*Microland*	*NTT*	*Optanix*	*Orange Business Services*	*Sify Technologies*	*Tata Consultancy Services*	*Telefónica*	*Verizon*	*Wipro*
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Operations Automation	3.2	2.9	3.9	3.8	2.5	3.9	3.4	3.3	3.7	3.0	3.0	2.9	2.6	3.2	3.6
Customer Experience Management	3.3	2.9	3.8	3.8	2.7	3.9	3.5	3.4	3.7	3.0	3.1	3.0	2.7	3.4	3.6

Professional Services	3.1	2.8	3.4	3.3	2.6	3.3	3.1	3.4	3.8	2.8	3.2	3.0	2.9	3.2	3.6
Managed WAN Services	2.8	2.8	3.5	3.5	2.9	3.5	3.4	3.3	3.4	2.9	3.5	3.5	3.1	3.2	3.2
Managed LAN/WLAN Services	2.9	2.7	3.5	3.5	2.9	3.4	3.4	3.3	3.4	2.9	3.5	3.5	3.1	3.2	3.2
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Managed Network Services for LAN/WLAN	3.05	2.78	3.62	3.56	2.77	3.56	3.41	3.31	3.54	2.95	3.33	3.27	2.89	3.24	3.38
As of 1 October 2021															

Source: Gartner (November 2021)