The 2019 Hybrid Network Buyer's Checklist

Don't Trust Your Extraordinary Expectations to Ordinary Networks

How to Identify Network Service Providers Capable of Driving Your Digital Transformation

MASERGY

Digital transformation is required to outpace today's velocity of change. But transforming your network doesn't come with an instruction manual. With changing applications, fluctuating geographical footprints, and dynamic business objectives, an optimal network environment today may be suboptimal tomorrow.

Digital initiatives are the catalysts designed to propel companies light years ahead of the competition, and software defined IT architectures are fortifying these strategies, delivering new generations of network agility and empowering enterprises to remain nimble amidst the accelerated rate of change. Over the past 18 months, the networking industry has seen the software defined wide area network (SD-WAN) Gartner Hype Cycle climb to the peak of inflated expectations. Additionally, real-world SD-WAN deployments have demonstrated how and when broadband Internet should be leveraged for enterprise connectivity. For most enterprises, a software defined hybrid networking environment that combines private and public connectivity delivers the agility and performance required—both today and tomorrow. But, finding the right hybrid networking partner can be a challenge. As the driving thrust of the future, IT executives need partners who excel at both service delivery and technological revolution. Anything less may mean digital stagnation.

This buyer's guide explores the rising expectations of enterprise network services buyers, the seven areas of technical leadership your hybrid networking partner should have, and the key questions you should ask to identify the right partner for your business.

The New Network Buyer: Transformation Enablement

Innovative IT leaders are shifting their decision-making criteria for network services, elevating agility to the top of their needs list and placing it on par with leading criteria such as network performance and reliability. Agility is now viewed as a fundamental ingredient of digital transformation, powering companies to outpace today's velocity of change.

In 2018, the Gartner Magic Quadrant for Network Services, Global stated:

"In the past 12 months, Gartner has seen accelerated change in enterprise requirements and buying criteria for global networks. Enterprises are increasingly focusing on agility, their adoption of cloud services and greater use of the Internet as primary WAN transport."

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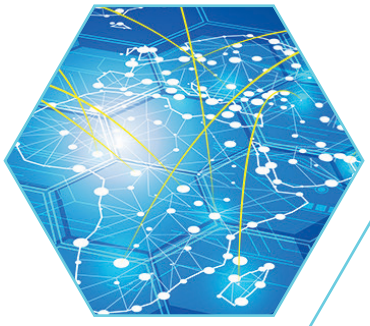


Don't trust EXTRAORDINARY EXPECTATIONS to ordinary networks

"Further, global enterprise evaluation criteria are placing less emphasis on larger providers, network scale and the availability of large numbers of provider staff to deliver customized capabilities to address site- or application-specific requirements."

SOURCE: Gartner, Magic Quadrant for Network Services, Global, Danellie Young, Katja Ruud, et al., 27 February 2018. G00346891

Masergy believes these findings demonstrate key shifts in buyer perspectives. The enterprise is drifting away from traditional network services to software defined solutions offered "as a service." Nimble networks are no longer a nice to have. Given today's pace of innovation, the rapidly expanding cloud application environment, and the dynamic nature of business requirements, enterprise agility is central to success. Most notably, agility is giving rise to a fresh approach for selecting network partners.

"Hybrid networking strategies backed by software defined platforms particularly help enterprises meet the requirements of broad and increasingly distributed cloud application deployments. Hybrid networks that seamlessly blend Internet, MPLS, and SD-WAN architectures enable agility and ubiquitous connectivity while minimizing latency between all branch offices and all applications."

Jason Harris, Director Network Engineering
Masergy

New Criteria Spawn a Fresh Set of Buyer Questions

As IT executives are hyper focused on their innovation journey, they need platforms and partnerships to help them form a bedrock for digital transformation and then remain agile in order to rapidly adopt newly released technologies that continue their metamorphosis.

But, how do you ensure your purchasing process will clearly distinguish a network transformation artist that is as forward leaning as you are? In part, by asking the right questions.

WHY THE BUYER SHIFT?

The change in buyer behavior is largely a reaction to macro-level movements that cross all industries, including:

- Cloud migration and the proliferaation of SaaS apllications
- Artificial intelligence (AI), the Internet of Things (IoT), and big data
- Increasing and advancing cybersecurity threats
- Mobile, global workforce strategies that enable productivity across any device
- Frictionless business process automation

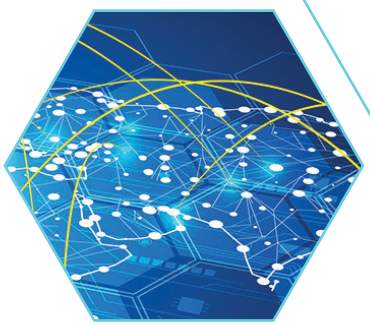
Identify Network Providers Capable of Driving Your Digital Transformation Agenda

1. USER EXPERIENCE: APPLICATION PERFORMANCE

Above all else, the application user experience rules. As you evaluate providers, identify those who not only understand your current and future application environment, but also those who have a platform that easily allows you to strike a balance between performance, price, and risk tolerance. Because not all applications require the same level of network support, understanding performance attributes per application is fundamental to resource allocation and network design. Get to know how different providers create solutions around your application environment by posing these questions:

- How can you provide me with a consistent user experience around the world?
- How do your network service level agreements (SLAs) map to my application environment, and are your SLAs consistent around the world?
- Can you guarantee jitter values globally? If so, what is that guarantee?
- For my real-time applications, can you guarantee global in-sequence packet delivery?
- Do you support secure local Internet breakouts and split tunneling of services for my public cloud applications?
- Do you provide real-time visibility into application performance?
- How easy is it to add new applications with full visibility?

Seven areas of technical leadership identify partners who can help you remain nimble in the face of change



Discover partners who will perform beyond your expectations and deliver reliability worldwide

2. NETWORK AGILITY: SOFTWARE DEFIND PLATFORM

Most legacy telecommunications companies have grown through acquisitions, piecing together various networks and systems from the acquired companies throughout the years. This strategy yields a nice portfolio of physical assets, but fails to deliver a ubiquitous global network fabric. As a result, legacy providers must maintain large teams of technical staff to design, implement, and manage their enterprise solutions. By contrast, next-generation providers have built single global network platforms with interoperable components using software defined networking principles. The difference in these underlying substructures directly relate to the agility, flexibility, visibility, and control of the services provided. Before you sign a contract, make sure you are aware of the provider's infrastructure, level of integration, and change management processes, as they will dictate the agility of your network solution. These questions will help you understand what type of network is under the hood and which one is most likely to give you a competitive edge:

- Can you provide insight into the network architecture that you will be provisioning for our network?
- Do you leverage Network-to-Network Interconnects (NNI) as part of your solution? If so, where and with whom?
- Do you have the ability to deliver services in the same model with the same SLAs on a global scale?
- Will I be able to segment applications by user group, business unit, or workflow?
- Will I have centralized policy management that aggregates all WAN appliance performance data and makes it available for analysis and reporting?
- Will I be able to check and monitor service delivery, uptimes, latency/jitter values, tickets, issues, and usage in real time? If so, how?
- Will you provide tools to let me check actual and historic data per location?
- Can I see a visual map of my network connectivity?

Services delivered via a patchwork of different legacy network systems not only lack agility, they tend to cost more in the long run.

Most require payment when the customer wants to add, change, or remove connectivity. Added to each monthly invoice, these fees can be substantial.

CRAFTING YOUR NETWORK AROUND BUSINESS NEEDS

"When whiteboarding or brainstorming your network, don't lead with a technology platform. Lead with applications. Start with a list of your apps, user groups, workloads, and workflows and design from there without boundaries. Ask yourself: "In an ideal world, what would each location, business unit, and app use as a connectivity method to reach my end users?" You want your network design coming from a whiteboard–not from a 'speeds and feeds' spreadsheet or a predefined technology."

Chris Werpy
Senior Vice President, Masergy

Dynamic customers harnessing today's velocity of change may prefer more predictable cost models with programmatic software defined networking platforms that offer scalability, easily spinning up or down new locations and virtual environments. This flexibility helps you maintain an optimal solution after initial implementation—enhancing user experience, bandwidth, quality of service (QoS), and enabling a dynamic, virtual private network (VPN) environment. Will your service come with restrictions, or is it extensible and scalable, evolving with your enterprise? To find out, ask these questions:

- Can I create limitless virtualized environments?
- What is your add/change/delete fee schedule for making modifications to the network?
- How do you plan for and verify the impact of new applications within an environment?
- What is your process for day-two empirical data gathering to ensure the success of new technologies?
- Does the ability to run virtualized network functions ease the deployment of new locations for company growth, helping me avoid stacking multiple devices at every location?
- Can you describe the deployment schedule flexibility?
- Can I mix and match network function (routers, firewalls, WAN Optimization, etc.) deployment models including premise-based, cloud-based, and vCPE-based?

Drive toward a programmable enterprise with these questions

3. BALANCE PERFORMANCE, PRICE, AND RISK: ACCESS AGNOSTIC

With digital transformation objectives focusing more on agility, providers are giving enterprise customers the freedom to use multiple connectivity types across the WAN. You should be able to mix and match connectivity types and last-mile vendors to strike the optimal balance between performance, price, and risk tolerance. An agnostic approach to access enables network designs based on the application environment and on the location type—as opposed to a specific technology.
Make sure your solution is access agnostic with these questions:

- Am I limited in the types of connectivity to access your WAN platform?
- Can I use multiple types of connections per location? (i.e. dedicated private access, dedicated Internet access, and/or broadband Internet access)
- For your access methodology or connectivity, are you provider-independent?
- How do you manage third-party, last-mile providers?

You should be able to mix and match connectivity types and last-mile vendors

- What are my redundancy options that will make my network more resilient?
- Do I bring my own access/connectivity or do you deploy and manage that for me?
- Can I switch access types at a given location, if my needs change?
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Additionally, the last mile is an important consideration when drawing up the service level agreement. Its impact on changes, tickets, and mean time to repair (MTTR) can be significant. It's smart to ask these additional last-mile questions:

- Will your SLA include the last mile? If not, where do you draw the line?
- Are your SLAs application based or next-hop based?

Finally, when leveraging broadband or public Internet access for WAN connectivity, security features are critical. Ask these additional questions to identify tools that make public access simple yet secure:

- Does your SD-WAN solution include a next-generation firewall with Unified Threat Management (UTM)?
- Do you offer secure local Internet breakouts, and if so, how?
- Does SD-WAN include an integrated router and firewall, making it easy to directly and securely route traffic to the Internet without stacking multiple devices at a given location?

4. PREDICTABLE PUBLIC CLOUD ACCESS: DIRECT CLOUD CONNECTIVITY

Years ago, the leading cloud providers insisted that the public Internet was the only manner in which enterprises would access their compute and storage platforms. As the enterprise moved beyond test-development environments to material production environments within public clouds, the need to deliver a predictable user experience changed the design parameters. These days every major provider has interconnected their global platform with leading cloud providers like Amazon Web Services (AWS) and Microsoft Azure to give you private, secure connections. As a result, evaluation questions should now focus on the quality of connectivity to understand if the service is just "plumbing" or if there is intelligence wrapped around it. To achieve this, ask these questions:

- What performance guarantees do you offer for cloud connectivity? Can you provide a cloud SLA that guarantees 99.99% service availability?
- What tools do you provide to manage direct cloud connections? Can I manage these connections as extensions of my WAN?
- Will I be able to have quality of service (QoS) capabilities? If so, which service classes will I be able to implement on the virtual routing and forwarding (VRFs)? Will your management and control portal let me do that?
- Do you have any security capabilities or sensors for monitoring the traffic that has direct access into the dedicated Internet access (AWS or Azure) environment?
- Once the traffic is inside the dedicated Internet access environment or AWS cloud, do you offer security configuration and monitoring activities? Can you collect security data that can then be ingested and monitored?

Focus on the quality of cloud connectivity to understand if there is more than just "plumbing"

5. SECURITY: MANAGED DETECTION AND RESPONSE

Security is always a concern, but when enterprises transition to hybrid networking strategies that combine private, public, and cloud access, security practices once again come under the microscope. Hybrid networking providers that also deliver managed security services often create the perfect marriage for customers, helping them build a comprehensive approach with technologies, processes, and network and security analysts all working together. When your prospective network provider also offers managed detection and response (MDR) services, be sure to ask them:

- What managed security solutions can complement my network?
- Do you offer 24/7 security monitoring by certified security analysts? How is it customized for my business?
- Does your service come with a single-pane-of-glass customer portal?

When the provider also offers managed security ask these question

- Explain how you handle alert monitoring as well as incident response and mitigation?
- Explain your log monitoring capabilities. Is there any correlation between disparate log/event sources?
- Do you have on-site data storage, processing, and monitoring to meet regulatory requirements? (PCI, HIPAA, GDPR, etc)?
- Do you offer a comprehensive managed detection and response tool suite that includes:
    - Machine learning and behavior analytics (analyzing every packet) for detecting both known and unknown threats
    - Intrusion detection system/intrusion prevention system
    - Integrated vulnerability scanning
    - Managed endpoint detection and response (EDR)
    - Microsoft Office 365 security monitoring
    - Software-as-a-Service application monitoring (i.e. Salesforce, Amazon Web Services, Dropbox) via Cloud Access Security Broker (CASB) or Cloud workload protection (CWP)
    - Single sign-on monitoring
- Can you ingest flow data and monitor it from network devices (virtual and physical)?
- Do you have integrated threat intelligence at no additional cost?
- Does your network solution offer SD-WAN security monitoring capabilities?

If Unified Communications is also an option ask these questions

6. MOBILITY AND PRODUCTIVITY: UNIFIED CLOUD COMMUNICATIONS

Digital transformation initiatives include mobile workforce strategies and seek to upgrade voice communication transport methods from traditional private branch exchange (PBX) models to unified cloud communications with powerful video conferencing, instant messaging, and collaboration tools. Some hybrid networking providers can also help here, giving you an extensible and scalable communications platform that keeps mobile employees connected and productive on any device, anywhere in the world. When this is the case, be sure to ask them:

- What efficiencies can I gain if I run my unified cloud communications solutions over my network?
- How is your unified communications platform embedded in your network platform?

- Does your service provide global availability and localization in country?
- What is your migration path to convert from SIP trunking to a hosted solution?
- Do you provide management portals and real-time analytics that accompany the service?
- Do you offer APIs and the ability to integrate with popular SaaS or cloud applications?
- Do you bundle your unified communications features and related fee structures?
- Do you include failover capabilities for your unified communications products?
- Do you offer a bring-your-own-device (BYOD) solution?

7. EXPAND YOUR RESOURCES: IMPLEMENTATION, SUPPORT, AND OVERALL CUSTOMER EXPERIENCE FROM A TRUE PARTNER

Network providers should be more than a service. True partnerships will help reduce the workload on your internal resources, freeing them to focus on more strategic initiatives. To evaluate the strength of your future relationship, be sure to dive into these additional areas of leadership.

As-a-Service Models and Total Cost of Ownership

Digital transformation buyers are replacing the capex vs. opex conversation with a narrative focused on solutions provided "as-a-service." Cloud-based cost models are favorable, because they offer "pay-as-you-consume" models. As a result, buyers want to ensure they are paying only for what they use and are not being overbilled while still crafting a customized solution that flexibly scales up and down as needed. Ask these questions to find out if your provider focuses on maximizing the effectiveness of your spend:

- What are my contractual obligations during my contract terms?
- Will I need to purchase hardware in addition to monthly services?
- What is the change management process, and are there related fees?
- What services or features are included vs. billed separately? (VPNs, multicast, quality of service (QoS), visibility tools, application performance management tools, etc.)
- Will you whiteboard a customized solution that is relevant to both my technology needs and my business/budgetary needs?
- How will my network flex as my enterprise footprint and virtual network environment grows or shrinks?

Maximize the effectiveness of your spend with these questions

Network Configuration and Project Managment

Network configuration and professional project management services can become points of conflict between provider and customer partly because automation may cause a gray area. Many assume that zero-touch provisioning means no effort is needed on the customer's behalf, but resources are still needed to design the network configuration and perform initial programming before the customer setup process takes place. Ask these clarifying questions:

- How do I set up my global network configuration? Is that included in your service or is that a separate professional services contract?
- Do I have a dedicated project manager? Is this included in the fee or billed separately?
- Does my service include ongoing professional project management services?
- Can you implement the services I need on a timeline that meets my objectives?
- How often will our teams review, evaluate, and optimize our network architecture and performance?

Support and Overall Customer Experience

With application user experience at the core of any digital transformation effort, you'll want a managed service backed by high-quality service and deep customer relationships. These questions will help analyze if your partner keeps customer centricity at the top of their priority list:

- How do you measure customer satisfaction and who conducts this research?
- What is your Net Promoter Score (NPS) (or customer satisfaction rating) and what are you doing to improve your score?
- What is your annual customer churn rate?

Digital Change Agents and Industry Mainstays

Beyond connectivity uptime and customer experience, your hybrid networking provider should continuously offer you more value, delivering new tools, service offerings, integration opportunities, and ideas to help drive your digital transformation to the leading edge. Additionally, the network services industry is ripe with acquisitions and market consolidation, which can cause disruptions in both service and relationships. Ask these questions to get a sense of whether your provider is a leader, industry visionary, and a mainstay in the market:

- When did your company start developing a software defined platform, and how long has your company been delivering SD-WAN solutions?
- What's on your product roadmap and solution development plan?

How will your team help me take our digital transformation to the next level, bringing us fresh perspectives and helping us drive a competitive edge?

NET PROMOTER SCORE

Many service providers use the Net Promoter Score (NPS) to determine customer satisfaction. The survey, typically executed by a third party, presents this question: How likely are you to recommend our company to a friend or colleague? Customers answer this question on a scale of 0 to 10, with 0 meaning not at all likely to recommend and 10 meaning extremely likely to recommend. A company's total NPS is then calculated by subtracting the percentage of Detractors (those who gave a score of 0 to 6) from the percentage of Promoters (those who gave a score of 9 or 10). IT service providers are often in the range of 10-20 points; some telecommunications companies score even lower.

Conclusion

Digital transformation requires the right mix of technical ability and leadership—otherwise your efforts will culminate in digital disruption without the critical metamorphosis. Transformation requires more than introducing a given technology. It starts with laying a foundational network infrastructure that paves the way for reliability, optimization, and innovation. That foundation is often a software defined platform that empowers the enterprise to remain nimble in the face of accelerated change. Finding the right partner means identifying a digital change agent who brings together forward-thinking strategies with tenured experience and nothing shy of operational excellence. In the end, those who succeed in network transformation will outpace the velocity of change and thrive in the new digital age. Those who fail will be replaced by more nimble competitors.

Transformation starts with laying a foundation that paves the way for agility and reliability

Pilots of the digital journey will empower enterprises to fill IT gaps, infuse agility into the infrastructure and quickly adopt new technologies. Their partnerships will be marked by activities well beyond simply evaluating network performance and forecasting usage. Networking transformers will future-proof IT architectures and design networks to safely experiment on the cutting edge.

Digitization guides will educate companies about intent-based networking and the self-driving networks of the future. Seek and find the visionary who will champion your organization through the investments needed today to reap the brightest advantages of tomorrow.

About Masergy

Masergy owns and operates the largest independent Software Defined Platform in the world, delivering hybrid networking, managed security, and cloud communication solutions to global enterprises. Our patented technology, customizable solutions, and unmatched customer experience are why a growing number of leading organizations rely on Masergy to deliver performance beyond expectations.

ADDITIONAL SUGGESTED READING

Conversational SD-WAN: What SD-WAN Is, How It Works, and Deciding If It's for You

The SD-WAN Wave: Cost Savings Hype and MPLS Misconceptions

Digital Transformation: Selecting a Managed Service Provider

The New Era of Software Defined IT: Where We're Headed Next

Resources and Footnotes

Gartner, Magic Quadrant for Network Services, Global, Danellie Young, Katja Ruud, et al., 27 February 2018. G00346891