

Network as a service:

Checklist for IT and Business Leaders

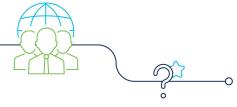
You've already adopted compute and software using a cloud-based service model. It's time you consider network as a service (NaaS) too.



NaaS: A step change for IT and business leaders

Key questions business leaders should be asking	Network as a service (NaaS) is a cloud delivery model that simplifies network operations for businesses. It facilitates significant flexibility and elasticity along with the ability to transition from CapEx to OpEx. This enables organizations to realize expected outcomes without the need to own, build, or maintain infrastructure.
Key questions from an IT perspective	The advantages NaaS promises to deliver are compelling in terms of value and agility. It's also paramount to recognize that it represents a step change across people, process, and technology.
Risk factors	For a successful transition to NaaS, IT and business leaders must collaborate to evaluate the potential benefits it will have on the business. To help initiate these discussions, we've created this short guide to cover some key questions you can begin to
Cost and accounting	consider in determining whether NaaS is the right fit for your organization's needs.
Talent	
Getting started	Cisco defines NaaS as a cloud model that enables users to easily operate the network and achieve the outcomes they expect from it without owning, building, or maintaining their own infrastructure.
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Q. Is our current network holding us back from delivering on our business initiatives?

Consideration: Over the last year it's estimated that 75 percent of organizations have accelerated their digital transformation initiatives. In many cases your network is an essential platform for these initiatives. If there are times when your network is not able to keep up with the initiative's implementation or is not capable of supporting its full potential, NaaS could be a good option.

Q. How would NaaS help us enhance our speed, agility, and scale?

Consideration: NaaS delivers on-demand consumption of networking that promises better scalability and greater elasticity, allowing your organization to quickly adjust capacity up or down in response to market conditions. NaaS enables you to focus on the outcomes you expect from your network rather than operating the network. Examples include securely connecting users to their applications, optimizing application experiences, and managing workloads in a hybrid world.

Q. How could a NaaS model improve our business?

Consideration: Applications are the business, touching everything from customer interactions, employee productivity, and operational efficiency. Consequently, your infrastructure needs to be responsive to the speed of applications. NaaS provides an ideal model with the ability to route application traffic to help ensure outstanding user experience and to proactively address issues that occur.

Q. For which use case should we consider a NaaS pilot?

Consideration: Multibranch networking, multicloud access, and securing the remote workforce are some of the more common use cases for NaaS implementation today. Benefits include the ability to rapidly deploy new sites, deliver a more secure and consistent application experience for customers and employees, achieve greater agility, and offload some of your network management tasks.



→ Key questions from an IT perspective

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Q. How manageable is our network complexity and is it sustainable over 3-5 years?

Consideration: Today, there are 20 billion devices connected to the internet. By 2023, this number is estimated to jump to 29 billion.² And "by 2023, 40% of all enterprise workloads will be deployed in cloud infrastructure and platform services, up from 20% in 2020."³ This means more strain on the network and more overhead in terms of monitoring and management in real time. Policies will need to be created, deployed, and maintained in an automated way, consistently, on the premises and across all your clouds. CIOs should make infrastructure transformation a priority, with the network and security at its core.

Q. Which area of our network would add the most value?

Consideration: Your network plays a central role in enabling key business initiatives. One of the first steps when considering NaaS adoption and prioritization is to assess how well each network area (LAN, WLAN, WAN, VPN, DDI, data center) is currently supporting your business strategy and which areas are most rapidly changing. The more dynamic the network area, the more NaaS can help.

Q. How much time and resources are required to manage our network?

Consideration: Many IT teams spend more than half their time managing and maintaining the network.⁴ NaaS can help apply these resources to tasks that deliver more business value. NaaS can automate multiple processes such as onboarding new users, provisioning and configuring new network devices, lifecycle management, and extending policies throughout the network for maximum performance and compliance. Most NaaS solutions also employ powerful, Al-driven, actionable insights to ensure fast identification and resolution of faults and to help IT improve services utilization, optimize workload traffic, and better protect the business from cyber threats, along with partner-delivered services for added speed, agility, and solution optimization.

Q. Which use case would we most likely start with?

Consideration: Because the WAN is transforming to support multicloud strategies, many consider it one of the most logical places to start their NaaS journey. Secure Access Service Edge (SASE) is one type of NaaS offering that combines SD-WAN with cloud security. SASE lets you move access controls closer to the user and the cloud edge. It simplifies deployment, management, and policy enforcement across all environments, and it delivers seamless, scalable, secure internet and cloud access anytime, anywhere.



→ Risk factors

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Q. What about security and performance?

Consideration: You may have hesitation about transitioning some control over security and performance, especially in terms of your ability to identify and remediate network issues fast enough. Most NaaS offerings give you an option for greater or lesser control over day-to-day policy management. You have the flexibility to choose.

Q. What are our data security and compliance considerations?

Consideration: Data is the lifeblood of an organization. Gone are the days when your data resided safely behind the corporate firewall in your data center. It's now traversing the internet, being generated in SaaS applications, at the edge, and stored in multiple clouds across multiple geographies. With data governance and privacy regulations increasing, you must be sure your NaaS provider has the capabilities and global presence to ensure data security and compliance everywhere.

Q. Are we missing market opportunities because our network does not have the latest technical capabilities we need?

Consideration: The pandemic has driven significant change in every respect. Many institutions that were previously reluctant to change have embraced digital. NaaS brings together the core networking capabilities needed to provide your organization the agility and flexibility to respond to dynamic market conditions. Make sure your NaaS service is being regularly updated to the latest capabilities you require to run your business effectively

Q. How do we choose the right NaaS partner?

Consideration: Selecting the right partner is a critical step. Partners should be able to assess your NaaS readiness and offer solutions tailored to your unique requirements and desired outcomes. This means deploying NaaS solutions into your environment, ensuring end-to-end security, and delivering and operating your solutions and security via managed services.



Cost and accounting

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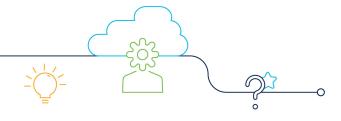
Q. How does our IT model align with our procurement and licensing model?

Consideration: Historically, network infrastructure has been a capital expenditure whereby assets are depreciated over time. In contrast, NaaS is an operating expense because both the hardware and software are delivered via a subscription model where you only pay for the networking resources you consume. This can provide for more predictable costs and efficiencies, while reducing the upfront investment. Billing options can include per device, per user, amount consumed, or can be based on service levels.

Q. How does the cost of a NaaS solution compare to our traditional network?

Consideration: Growing complexity and cyber risk results in rising IT management costs. NaaS can help by offloading some of this complexity by automating some of your network operations tasks and by integrating security. You may also be able to reduce capital and operational expenditure by reducing your reliance on MPLS, consolidating network and security tools, and only paying for networking resources consumed while avoiding the risk of overprovisioning.





→ Talent

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Q. If NaaS allows us to automate some of our network tasks, how will that impact our talent?

Consideration: IT complexity is trending upward with distributed users and applications and the expansion to cloud. NaaS simplifies. By delegating some of your network provisioning, configuration, and lifecycle management, NaaS may allow you to free up time for your networking experts to focus on higher-value projects that deliver more innovative services to the business.

Q. How valuable are other projects we could support if we spent less time managing the network?

Consideration: We've all had to delay significant projects due to a lack of resources or the upfront initial capital investment. Often though, it isn't always about a lack of budget, but rather the lack of availability of internal subject matter expertise to plan, accurately estimate the initiative, and execute. It's important to factor the opportunity costs of these projects, which is sometimes overlooked, especially if the complexity of the current networking model is an accepted status quo. When business unit executives choose to "go to the cloud", NaaS can help ensure that they are not lacking the appropriate network to support them.

Q. Do we anticipate an infrastructure automation or security talent shortage?

Consideration: With talent shortages in networking on the rise, NaaS may help you simplify your network operations and lifecycle management. This result has the potential to allow your IT team to manage more of the network without the need to add resources.

Q. Do we have the skill sets needed to support a transition to a NaaS model?

Consideration: Because NaaS touches multiple capabilities across network operations, security, and cloud access, you'll want to assemble the right team of NetOps, SecOps, and CloudOps to manage the relationship with your NaaS vendor. Together, they can ensure SLAs and SLOs are being met and you can achieve better networking outcomes faster.



Getting started

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Q. What is the best way for us to start our NaaS journey?

Consideration: The easiest place to start is with a greenfield deployment, such as establishing new branch offices or new edge projects. For a brownfield deployment, however, you will likely want to identify a low-risk area of your network to begin. An IT partner-supported NaaS readiness assessment and a deployment roadmap will help facilitate your success.

Q. Which kinds of networking and security functions would be most beneficial to offload?

Consideration: The growth in distributed users, applications, and sites means your cyber threat attack surface is growing exponentially. With NaaS, you can offload your hardware and software firmware updates. After that, you can delegate more advanced functions to your NaaS provider, such as setting security policies and troubleshooting with either guided or semi-automated remediation, subject to your approvals.





Choosing a vendor

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Q. What capabilities do we need?

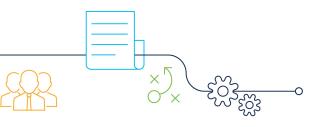
Consideration: There are many criteria for selecting the best vendor and this will depend primarily on your desired outcomes.

Business considerations include:

- Partnership for the future. You're looking not only for a vendor you can trust to deliver outcomes today, but also one that
 has the capital to invest in delivering continuous innovations so that the service continues to serve your organization into
 the future.
- A partner ecosystem for value-added services. Some NaaS vendors will have more established technology
 partnerships that can provide specialized services for industries. For example, although a NaaS vendor may not have a
 solution tailored for specific verticals or regional IT specifications, their partners may be able to offer integrated, valueadded services to enhance solution results.
- Data and compliance. You should choose a vendor that provides robust security and a global presence to meet local regulatory and compliance requirements.
- The ability to deliver on SLAs or SLOs. It's helpful to think about which service levels are the most important for your strategy. For example, what are your unique connectivity, bandwidth, latency, and security requirements? NaaS with advanced Al-driven capabilities can help ensure service-level agreements (SLAs) and service-level objectives (SLOs) are met or exceeded.

Technical considerations include:

- Integrated security. Some vendors "piece together" network security, relying on third-party capabilities.
 For example, a SASE vendor may offer SD-WAN, but not own security as part of their portfolio so they use a third party for security. Your chosen NaaS solution will ideally be based on fully-integrated on-premises and cloud-based security.
- Flexible management options. NaaS services are delivered via a cloud model to offer greater flexibility and customization than conventional infrastructure. Changes are implemented through software, not hardware.
 This is typically provided using self-service. IT teams can, for example, reconfigure their corporate networks on demand and add new branch locations in a fraction of the time.
- End-to-end visibility, including the internet, cloud, and SaaS. NaaS provides proactive network monitoring, security policy enforcement, advanced firewall and packet inspection capabilities, and modeling of the performance of applications and the underlying infrastructure over time. Organizations may also have an option to co-manage the NaaS.
- Streamlined troubleshooting with AI/ML guided remediation. NaaS solutions with advanced capabilities deliver Aldriven actionable insights to provide closed-loop issue resolution and can help IT improve utilization of services, optimize workload traffic, and protect the business by integrating networking with cloud security.
- Access to the right APIs. In order to get the most benefit from your NaaS deployment, it is essential that your provider
 offers an extensive range of APIs to integrate into your existing IT processes, as well as legacy business applications
 and platforms.



NaaS to support your strategy

To learn more about NaaS from industry experts, read this <u>IDC InfoBrief.</u>



Cited resources:

- 1. Fortune 500 CEO survey: How are America's biggest companies dealing with the coronavirus pandemic?, May 14, 2020
- 2. Cisco Annual Internet Report, March 3, 2020
- 3. Gartner, <u>Predicts 2021: Cloud and Edge Infrastructure</u>, John McArthur, Arun Chandrasekaran, Thomas Bittman, Tim Zimmerman, 8 December 2020
- 4. 2020 Global Networking Trends Report, Cisco

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