Enterprise networks have evolved

Why the new way to flex is Network-as-a-Service

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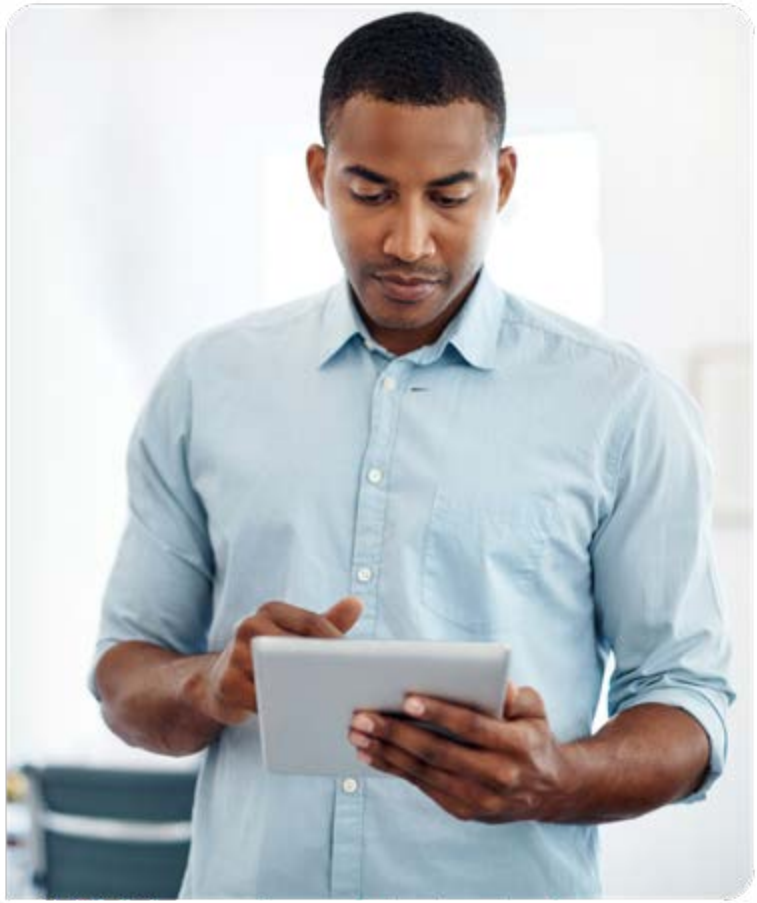

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Introduction

In today's fast-moving technology environment, it is vital to respond quickly to change. Whether that change is expanding your business to new locations or supporting a distributed workforce, every part of your enterprise network needs to be able to quickly scale up or down to deliver what you need, when you need it.

With traditional networking approaches, reconfiguring your network is slow and time-consuming. For example, opening a new branch office or retail site requires a series of manual tasks, including:

- Ordering internet connectivity
- Provisioning cloud resources
- Connecting the new location to your data centers
- Deploying and configuring applications
- Securing it all end-to-end

This process could take months or longer to complete and cause you to miss out on valuable business opportunities.

But if you could automate these tasks and deploy them with a few clicks—reducing a process that typically takes months to just a few minutes or hours—just imagine how that could help speed your time to market, improve customer experiences and, ultimately, grow your bottom line.

Network-as-a-Service (NaaS) is the alternative to slow, expensive, manual networks. It's a disruptive new approach that is revolutionizing the way businesses deliver and consume network functionality through a self-service model. And it can provide you with the flexibility your business needs to quickly adapt to change—so you can stay a step ahead of the competition.

This eBook is your guide to understanding NaaS, including what it is (and isn't), the IT and business benefits it can deliver, and how you can bring its cloud-like agility into your network environment.

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The trouble with legacy networks

An enterprise's competitive edge is based on its applications, and IT teams want to create an environment where those applications can run efficiently and meet their business needs. Today they're creating that adaptable, agile application ecosystem through a combination of their own private data centers, the centralized cloud, third-party data centers and, increasingly, edge compute.

The enterprise network is the common thread running through all these components. But too often, businesses rely on decades-old legacy network technology that wasn't built for our digital, cloud-centric world. These systems, typically offered by traditional telecom providers, create challenges for several reasons.

They're hard to buy

Businesses need fast provisioning of data center connections, but the buying experience for new connections and ports is non digital—and it can take up to 90 days to complete.

They're hard to manage, limiting flexibility and control

Customers are forced to pay standard monthly rates regardless of how they use the service.

They're hard to use

Connectivity isn't always reliable, and interfaces often don't integrate well with other apps and solutions.

NaaS solves for these challenges by providing the same level of agility in networking that enterprises currently enjoy within their on-demand, cloud-centric app environments. This cloud-like agility enables businesses to keep pace with innovation, meet rapidly changing business needs and optimize network performance and user experiences.

Let's take a closer look at what NaaS is and what it means for your business.

Too often, businesses rely on decades-old network technology that wasn't built for our digital, cloud-centric world.

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Network-as-a-Service is revolutionizing enterprise networking

There isn't a standard definition of NaaS because it is more of an experience or an approach to enterprise networking than a specific product or set of products.

In essence, NaaS uses a cloud-like model to simplify network services from start to finish, outsourcing onsite equipment and making compute and application services as easily and conveniently accessible as cloud services. Instead of buying network equipment, installing it and operating it, your Network-as-a-Service provider owns, installs and operates the equipment, and you pay a monthly fee for the turnkey service.

NaaS is a game-changer that fundamentally transforms the networking experience. Imagine if you could expand or decrease your capacity in real time to respond to changing circumstances, such as traffic spikes, seasonal demands or workforce fluctuations. This degree of scalability could eliminate the need for manual provisioning and allow your business to adapt quickly to change—boosting your operational efficiency, productivity, and both customer and employee experiences.

Now imagine that you no longer need to invest in infrastructure capacity that goes unused—or worse, proves inadequate for your needs. Unlike other approaches—such as WAN, IP VPN and MPLS—NaaS is not limited to devices such as switches, routers, gateways, firewalls and servers. It encompasses a comprehensive suite of digital offerings you can dynamically provision and manage through a centralized platform, including virtual devices, software defined networking (SDN) and network function virtualization (NFV).

> At its core, NaaS delivers ease of use and flexibility; it changes the networking experience.

And NaaS doesn't just streamline your infrastructure needs. It relieves your IT team from many time-consuming, mundane tasks—freeing them to focus on innovation instead of managing the network.

In short, NaaS is a way to make your entire enterprise more scalable, secure, cost-efficient and adaptable.

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A new way to consume network services

Much more than just a pricing strategy, NaaS represents a fundamental shift in how network services are consumed and paid for. One of its most compelling benefits is that it provides financial flexibility and predictable monthly costs.

NaaS uses an elastic, consumption-based pricing approach—a model that is becoming increasingly popular in the cloud services world, and for good reason. Also known as usage-based pricing, these models offer greater control over your spending.

From CapEx to OpEx

Unlike the traditional capital expenditure (CapEx) model, which requires substantial upfront investments in your network infrastructure, NaaS customers pay only for the resources they use. Hourly billing rates offer maximum flexibility and are comparable to monthly rates.

CapEx models also usually require you to predict your long-term capacity needs, which can result in overprovisioning your network. NaaS, on the other hand, can grow with your business to meet future capacity demands, eliminating the guesswork of trying to determine how much bandwidth your business will need next week, next month or next year.

Metered pricing is another key feature of the NaaS OpEx model. Instead of billing based on individual network devices or appliances, NaaS providers calculate charges based on metrics such as bandwidth and users.

This approach offers businesses several key advantages:

- **Cost efficiency —** organizations are charged only for what they consume.
- **Flexibility —** enterprises can easily adjust network resources as needed.
- **Scalability —** businesses can seamlessly expand their network capabilities as they grow.

Consumption-based pricing models offer greater flexibility and control over your spending.

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More than repackaged managed services

Some IT decision makers are under the misconception that NaaS is simply a rebrand of managed networking services. There are similarities between the two approaches, but true NaaS offerings go well beyond basic managed services.

While managed services involve outsourcing network management to a third-party provider, NaaS is built on a self-service model that gives you greater control and flexibility over your network resources. You won't need to rely on or wait for service providers to perform mundane tasks.

Combined with dynamic scaling and consumption-based billing, the self-serve aspect of NaaS offers a far more customized and cost-effective solution than managed services. With so many advantages, it's easy to see why NaaS is a compelling option for organizations seeking to optimize operational efficiency, drive growth, deliver enhanced experiences—and maintain a competitive edge.

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Placing customer needs first

At Lumen, we've taken a pragmatic approach to understanding the evolving needs of the Network-as-a-Service market and matching user experience with capabilities. That's why we've made enterprise network services as easy to buy, manage and use as the cloud.

Lumen® Network-as-a-Service offers radical flexibility—fire up any installed port, with any available service, at any time, in minutes not months—so you can do everything digitally in just a few clicks. Turn up new services for a day, a week, a month or for as long as you want and deprovision them instantly when you no longer need them.

We also understand that you want a dynamic, dedicated internet connection—but you want it from a reliable, flexible and secure network. Unlike many NaaS players, we can deliver on this promise because we own and manage one of the largest and most connected, secure fiber networks in the world. Coupled with our 30+ years of network management expertise, this capability enables us to build a purely digital experience across the entire networking stack.

Lumen NaaS launched in 2024 with the rapidly deployable Lumen® Internet On-Demand and has since expanded to more on-demand services—including security, SASE and edge services—creating a cloud-like experience for buying, consuming and managing all your network services in one place.

Our commitment to providing a flexible, effortless operational experience and customer-centric approach is driving improved business outcomes across industries. For example, Fox Sports brought its live sports content to AWS by using an on-demand connection aligned with the Lumen Network-as-a-Service platform to help AWS customers achieve their live cloud production goals.

> "We're building a digital platform on top of a rapidly expanding fiber network to help CIOs design, control, configure and consume network services in a multi-cloud, AI-first world."
>
> **— Kate Johnson**
> President and CEO, Lumen

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Modernize your network in minutes, not months

Lumen is introducing a new and efficient way for businesses to buy, use and manage networking services.

Lumen Internet On-Demand is the first and flagship service available on Lumen Network-as-a-Service. What makes it different? It's easier and much faster than how you have traditionally dealt with telecom companies. With a few clicks on our intuitive customer portal, your service will be ready to use. Or use APIs to automate your connections to Lumen for more control with less effort.

One-click scalability makes it easy to upgrade capacity from 100 Mbps to 10 Gbps in minutes, with real-time visibility into service performance and network usage. Plus, you can skip the long-term contracts* and avoid paying for unused peak bandwidth thanks to consumptionbased billing you control—all while enjoyingthe peace of mind that comes from knowing your connections are protected on the secure Lumen Network.

With Lumen Internet On-Demand, we're setting a new standard for customer experience and expectations. It's truly your network, your way.

Ready to transform your entire networking experience? Learn more about the dynamic network that adapts to real-time business demands: https://www.lumen.com/en-us/networking/internet-on-demand.html

Traditional Networks	Lumen Internet On-Demand
Negotiate a contract for each service	Accept terms and conditions
Manual quoting and service contracts	Cloud-like buying experience with transparent pricing
Service activation can take weeks or months	Less than 5 minutes to buy and activate service
Standard monthly rates no matter how you use your service	Hourly billing rates start with service activation
Multiple human touchpoints	API or user interface touchpoints

Figure 1
Comparison of traditional network purchasing models and Lumen Internet On-Demand.

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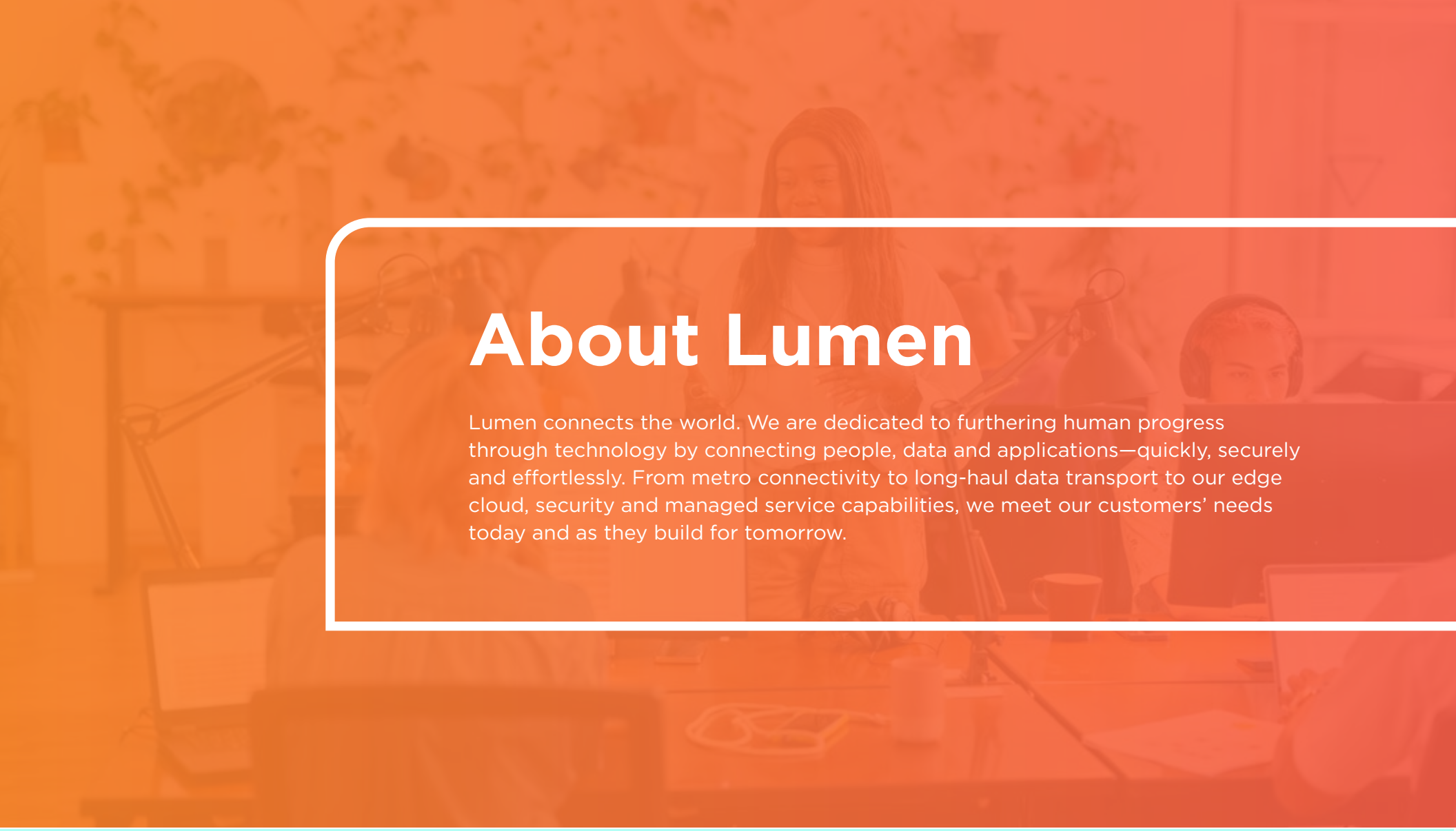

About Lumen

Lumen connects the world. We are dedicated to furthering human progress through technology by connecting people, data and applications—quickly, securely and effortlessly. From metro connectivity to long-haul data transport to our edge cloud, security and managed service capabilities, we meet our customers' needs today and as they build for tomorrow.

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*Lumen Internet On-Demand requires a Lumen Internet port under a minimum term agreement with early termination fees.

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