

Enterprise Network Edge

# The solution for high- performance, low-latency modern networking



## Bringing modernization within reach

IT teams frequently have to support performance demands and complexity well beyond what was envisioned when their networks were first designed. Locations, internet traffic and applications in the cloud have all proliferated. But many organizations still use older network technologies like MPLS, which has a difficult time keeping up with today's needs.

Despite the lower costs, improved flexibility and simpler management of a modern, software-defined wide area network (SD-WAN), decision makers are often reluctant to replace the network that supports their operations. In many cases they postpone SD-WAN adoption because they want to preserve some of their private network for business-critical traffic, which may raise concerns about managing two networks at the same time.

Any modernization initiative requires guidance. Selecting the right hardware takes effort and due diligence. Project coordination and network downtime have operational impacts. Once the implementation is complete, IT teams will also need to decide whether it makes sense to maintain the network internally or adopt SD-WAN as a managed service.

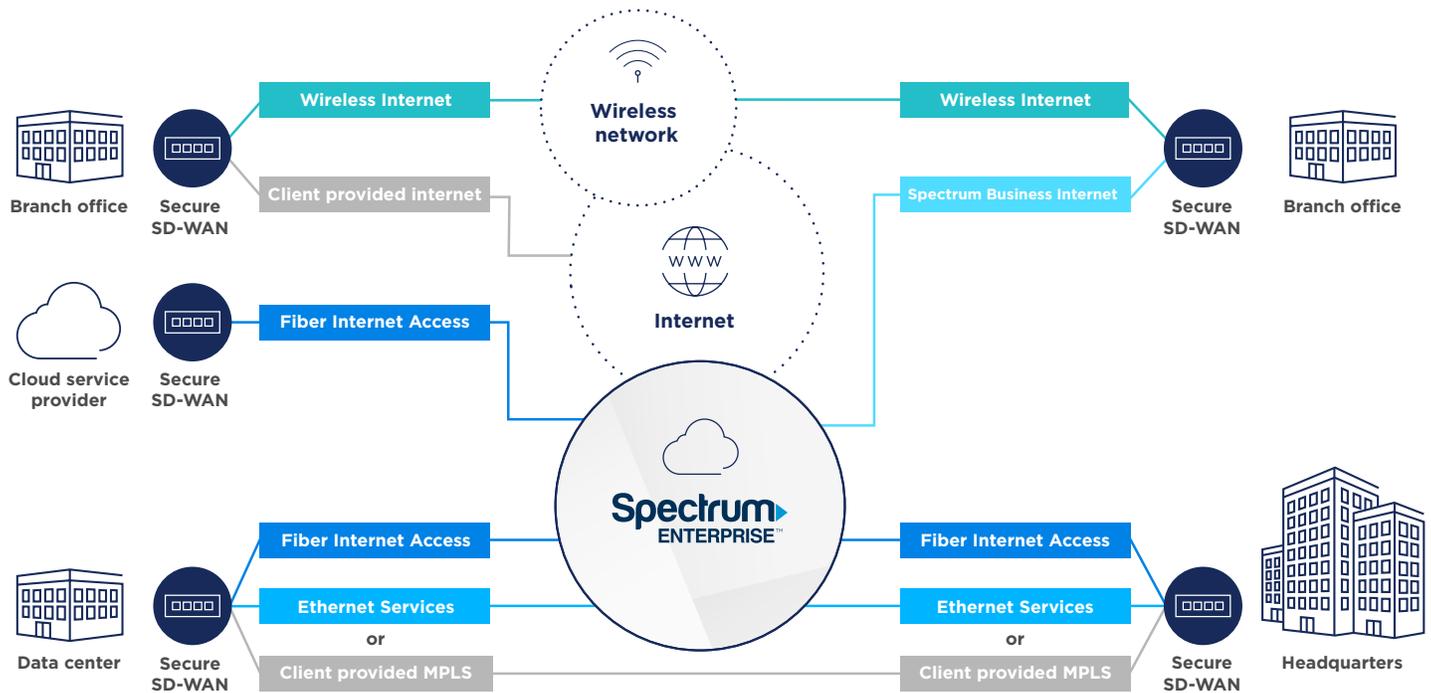
This white paper explores how Enterprise Network Edge from Spectrum Enterprise™ can simplify the transition to a more effective network, allowing you to overcome the challenges that stand between your organization and a high-performing, adaptable SD-WAN solution.

## Enterprise Network Edge

For large enterprises, or businesses with demanding requirements, the transition to SD-WAN calls for a solution that can rapidly scale. The network must also meet demanding requirements for traffic throughput, latency management, application support and other factors critical to organizational success. Powered by Fortinet, Enterprise Network Edge can support up to 10,000 locations, provides access to multiple cloud service providers at the same time and can handle throughput speeds up to 100 Gbps. Offered as a managed or co-managed service, it delivers a better digital experience for your teams and allows you to adapt quickly as your needs evolve.

With Enterprise Network Edge, network performance can improve dramatically compared to many legacy MPLS configurations that are not optimal for cloud applications and modern IP security that benefit from direct access to the internet. Not only does SD-WAN support faster internet-based connectivity, Enterprise Network Edge continuously monitors network capacity and performance to select the best route for high-priority traffic such as applications and data. Application-aware routing also reduces latency for time-sensitive applications like voice and video, increasing your teams' productivity.

Enterprise Network Edge simplifies the transition to a hybrid architecture and creates a secure SD-WAN environment throughout your public network.



Organizations that don't need multisite SD-WAN capabilities adopt Enterprise Network Edge as a security solution because it supports applications requiring high-capacity throughput and low latency.

### Security that scales

While a private network is inherently secure, the protection of a next-generation firewall can relieve concerns associated with using an internet-based technology to connect your locations. Enterprise Network Edge tightly integrates cybersecurity from the edge to the cloud. Its unified threat management includes antivirus, intrusion prevention, application control and URL filtering. Deep packet inspection offers an additional layer of visibility and protection for inbound traffic, including the encrypted data required by many essential applications. And automated updates help ensure the network is always ready to meet emerging threats while also reducing the routine upkeep often needed from your IT team.

Fortunately, this level of security doesn't come at the expense of network speeds. Thanks to an application-specific integrated circuit, Enterprise Network Edge hardware provides network protection at throughput speeds up to 100 Gbps without affecting performance. Even organizations that don't need multisite SD-WAN capabilities adopt Enterprise Network Edge as a security solution because it supports applications requiring high-capacity throughput and low latency.



of employees consider cloud resources essential to their jobs.<sup>2</sup>

### A better cloud experience

Many systems with the biggest impact on employee success and the customer experience lie outside of your network. Cloud service providers (CSPs) now support resources that 97 percent of employees consider essential to their jobs.<sup>1</sup> Cloud applications improve efficiency, enable collaboration and give distributed teams instant access to data that increases productivity. From your customer's perspective, loyalty often hinges on the performance of public-facing applications, service platforms and other solutions that depend on fast, reliable connections between your network and the cloud.

Enterprise Network Edge creates a better digital experience for employees and customers alike by securely connecting to multiple CSPs simultaneously, providing direct access to cloud-based resources from each branch location. The result is better performance for applications that support revenue growth — all with a solution that can decrease networking expenses while making the organization more agile.

Even off-site employees can benefit. Enterprise Network Edge supports up to 50,000 remote employees and thousands of endpoints with no additional licenses to buy. It provides fast and secure VPN access to your internal network and the internet so all team members can reliably use the resources they need to do their best work.

### Transition at your own pace

The cloud-based architecture of Enterprise Network Edge allows for a seamless implementation that minimizes disruption to your operations. It also gives you the option to deploy the new network in different locations at your pace, and if needed, utilize private networks such as Ethernet or MPLS for use cases in a hybrid network.

Organizations that want to replace their legacy network completely can have an SD-WAN solution configured while their existing network stays in place. In this instance, Spectrum Enterprise could deploy the hardware and connectivity for the new public network, set its policies and conduct testing. Once the new network is operational and configured through the portal, SD-WAN immediately begins to route traffic based on the policies you have set. This allows you to turn the network over to the new solution in a tightly choreographed fashion with minimal downtime.

This approach is also possible for organizations that want to retain parts of their private network. The same installation, configuration and testing takes place, but the policies ensure certain traffic stays on your current private network. This hybrid approach allows you to keep more critical data on MPLS or Ethernet while transitioning your mainstream traffic to the internet-based SD-WAN. This strategy reduces the footprint — and IT workload — of your remaining private network, while moving the rest of your organization to a solution that is much easier to manage.

### Multiple connectivity options

Meet requirements for performance, security and cost with capabilities that align with your locations' needs.



Fiber Internet Access



Spectrum Business Internet



Wireless Internet



Ethernet Services

With Enterprise Network Edge, organizations can also bring their own internet connectivity and MPLS.

SD-WAN provides better control and visibility of performance, routing, policy management, firewall settings and network components in a single portal, saving time and making it simple to upgrade additional locations. Compared to MPLS, there is also less premises-based equipment to maintain and lower-cost access can be utilized. The resulting network can reduce routine maintenance while trimming expenses. For example, one study found that enterprises using MPLS can save up to 25 percent of recurring network costs by implementing a hybrid SD-WAN.<sup>3</sup>

### A solution you can trust

Complex challenges call for a partner that can build a network that matches your specific goals, timelines and performance requirements. Spectrum Enterprise removes the uncertainty of SD-WAN adoption, whether using a standard or hybrid architecture. Our technical teams work closely with your organization to plan, design and implement Enterprise Network Edge alongside your existing private network to minimize disruption of your operations. Branch offices can transition from their private networks to SD-WAN technology at a pace you choose. You decide whether Spectrum Enterprise fully manages the solution, or you can co-manage it with us, which establishes your level of control over network operations, and allows your IT team to focus on higher priorities.

Discover how Enterprise Network Edge and our consultative approach to modernization can help your network reach its full potential through scalable performance that improves the daily experience of customers and employees.

1. ["Ride the Remote Revolution to Future-Proof Your Business,"](#) Lenovo, March 22, 2021.
2. Ibid.
3. ["Enterprise Networking, Building the Network of the Future with SD-WAN,"](#) Deloitte, 2021.

### About Spectrum Enterprise

Spectrum Enterprise, a part of Charter Communications, Inc., is a national provider of scalable, fiber technology solutions serving many of America's largest businesses and communications service providers. The broad Spectrum Enterprise portfolio includes [networking and managed services solutions](#): [Internet access](#), [Ethernet access and networks](#), [Voice](#) and [TV solutions](#). The Spectrum Enterprise team of experts works closely with clients to achieve greater business success by providing solutions designed to meet their evolving needs. For more information, visit [enterprise.spectrum.com](https://enterprise.spectrum.com).

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