

WHITEPAPER

Unlock the value of network modernization



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EXECUTIVE SUMMARY

The pandemic accelerated digital transformation strategies across organizations and industries. Many IT managers were asked to accomplish a decade's worth of digitization within a year or two. In a survey conducted by Celerity, 49 percent of executive leaders indicated that digital transformation was not a strategic priority prior to the onset of COVID-19, but it has become one since.¹

Organizations that never conducted business online before were forced to figure it out. Companies that considered themselves technically advanced learned about areas in which their technology is lacking. Now, as enterprises adapt to new ways of working that are here to stay, organizations are reevaluating, and many are doubling down on investments to modernize their networks.

Modernizing a network is the most efficient path to digital transformation. Workloads can be better supported when the network infrastructure is software-driven. New business initiatives can launch as digital capabilities, leveraging connections to suppliers and customer networks as well as cloud-based services. The network becomes a true business tool and the organization can collaborate with clients on their terms without worrying about bandwidth availability, network security or workforce distribution.

Ethernet, software-defined wide area networks (SD-WANs), private cloud connections and voice solutions are all elements of network modernization. Ethernet brings to enterprises the network speed and bandwidth needed to support business-critical demands. SD-WAN delivers the flexibility to optimize a network in real time as business priorities evolve. Public cloud connections are table stakes for many enterprises today, since cloud-based workloads are now foundational to many operations. And with many organizations now supporting distributed workforces, voice applications and collaboration tools are also a necessary component of a network modernization strategy.

Integrating all of this with an existing IT infrastructure can be a challenge. IT decision makers who manage multiple networks and technologies are turning to Spectrum Enterprise to streamline the network modernization journey. The right partner can update network architectures to simplify many of the tasks that currently consume IT's time. These can include patching and firmware updates, network traffic management and proactive security measures. A single service provider can build a strategy to meet growing demands and increase flexibility, allowing organizations to quickly add applications and locations when needed.

WHAT THE ENTERPRISE NEEDS NOW

The march to the cloud became a stampede during the pandemic, and now organizations need to enhance the performance of their cloud platforms. Indeed, 59 percent of organizations plan to focus on cloud migration according to the Flexera 2021 State of the Cloud Report.² Video conferencing and other real-time collaboration tools are essential, and demand for these and other cloud-based applications is straining network bandwidth.

Ethernet services provide a scalable, high-bandwidth connection to accelerate the capabilities of mission-critical applications and deliver an SLA-backed service to integrate the network to public and private clouds. The Cloud Connect service from Spectrum Enterprise offers a high-performing, secure fiber connection, allowing organizations to confidently access cloud-based compute, storage and applications from any location on a wide area network. It also allows for easy management of multi-cloud environments. Today's enterprise applications are dynamic business tools that integrate content and capabilities from the network edge and the cloud, which makes dedicated, high-bandwidth connectivity a key to performance.

According to IDC, 75 percent of organizations will implement tools for multi-cloud data logistics by 2024, using abstracted policies for data capture, migration, security, and protection.³ Spectrum Enterprise streamlines efficient and reliable access, enabling clients to scale innovations and leverage new cloud-based technologies across an organization. With Spectrum Enterprise as a network partner, cloud-first strategies can better deliver on their promise.

Some network traffic has heightened security requirements and needs to be safely routed over private connections. Ethernet with high-capacity circuits can securely transmit large files and critical workloads between key locations. For the most demanding applications,



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Wavelength Services from Spectrum Enterprise provides a dedicated, point-to-point private connection, which eliminates switching delays, provides very low-latency bandwidth and encapsulates data inside a wavelength frequency to ensure fast data transfer.









Spectrum Enterprise delivers speeds up to 100 Gbps so the network can grow as the business evolves. Organizations need to move fast when business opportunities or commitments require them to light up new networks or turn on new network functionality. Spectrum Enterprise can provide cost savings by delivering and managing a lit service for a client that might otherwise need to self-manage dark fiber.

Large enterprises and public sector organizations are increasingly dependent on remote workers and virtual private networks (VPNs). Often, employees, suppliers and customers need to access the corporate internet from a remote location, and they need access to a myriad of applications. With an increasing number of remote workers using corporate VPNs, robust connections that enable VPNs to access the cloud are more important than ever.

Organizations are accelerating digital transformation to drive long-term growth .

TOP REASONS FOR INVESTING IN DIGITAL TRANSFORMATION

According to Deloitte, the top reasons for investing in digital transformation: 1) To enable faster innovation. 2) To modernize and keep up with the times. 3) Changes in industry requirements.⁵

Top rationale for digital transformation	Corporate	Government
 To enable us to innovate faster	#1	#2
 We need to modernize/keep up with the times	#2	#1
 Changes in our industry require it	#3	n/a
 To become more resilient	#4	#5
 Competitor moves require it	#5	n/a
 To comply with regulations	#6	#4
 Delivering on agency's mission	n/a	#6
 Meeting citizen demands/expectations	n/a	#3

Note: Rankings based on percentage of respondents identifying each factor as the main rationale for digital transformation investment.

Source: Deloitte Digital Transformation Executive Survey 2021.

The demands placed on networks by these new initiatives and applications emphasize the need for flexible, reliable networks that make optimal use of bandwidth. Spectrum Enterprise offers Managed SD-WAN to help meet these requirements by dynamically managing network traffic to optimize performance. The service continuously monitors and evaluates the usage of network resources, routing traffic intelligently across all available connectivity options. Because Managed SD-WAN is application-aware, it can prioritize specific traffic flows for preferential routing treatment. This ability helps organizations deliver on responsiveness, security and other requirements for critical applications.

With distributed workforces becoming the new normal, today's employees expect to be able to communicate and collaborate effortlessly and securely, across digital platforms and devices, wherever they are located. The growth of communications channels gives employees, customers and partners more ways to interact than ever before. Unified Communications (UC) from Spectrum Enterprise provides a complete end-to-end services wrap that includes performing an assessment of on-premises networks and cabling; designing call flows; deploying any required network hardware; provisioning the IP phones, and proactively managing both the network and the communications services. Organizations deploying UC will have peace of mind knowing their solution is provisioned to meet their collaboration requirements and is supported by local technicians and service management personnel.



THE BENEFITS OF A HOLISTIC APPROACH TO NETWORK MODERNIZATION

Network modernization is an evolving target – one that is constantly shifting as organizations undergo transformation and new technologies continue to be developed. Taking a holistic approach to network modernization enables organizations to more efficiently implement and support these transformative strategies. Spectrum Enterprise brings a holistic approach to network modernization for data, security and voice.

Spectrum Enterprise can help reduce the complexity of network modernization, which is critical to improving reliability and security for users. Whether an organization is looking to add new capabilities and services or needs to modernize and optimize an existing network infrastructure, Spectrum Enterprise can help reduce the burden on corporate resources.

In addition, network updates can be automated, ensuring that the network always has protection from emerging security threats. To increase efficiency, IT leaders need to know which solutions and processes are most effective. Spectrum Enterprise assists by partnering with major security leaders, such as Fortinet and Netscout, to review, verify and apply measures proven to keep internet service and networks secure.

To navigate the network modernization opportunities associated with voice platforms, organizations need a partner with the expertise to manage the technology. Spectrum Enterprise Unified Communications (UC) with Webex is a holistic, end-to-end UC solution that includes everything from the core-cloud network where services are managed, all the way to the wiring and IP phones inside office locations. This single-vendor approach simplifies the implementation, maintenance and support of UC services.

The different elements of network modernization should be synergistic and should add value to an organization by enhancing efficiency and enabling business teams to move faster. To accomplish this, organizations find it advantageous to work with a single network service provider who understands the big picture.



THE VALUE OF ONE NETWORK SERVICE PROVIDER

According to IDC, by 2026, 70 percent of CIOs will require cloud and telco partners to deliver secure cloud to edge connectivity solutions that guarantee performance and consistency in data collection.⁶

Every business wants the best technology at the best possible price, but organizations that understand and embrace network modernization want more than that. They look to their service provider for expertise and network management, enabling their IT staff to focus more fully on the business.

Spectrum Enterprise customizes client networks for today and tomorrow. With one partner to plan, design, implement and operate the network, organizations can be confident that the vision of efficient network modernization is fulfilled. Spectrum Enterprise offers 99.99 percent service availability with a four-hour mean time to restore (MTTR) - not just respond.

For all its network clients, Spectrum Enterprise provides continuous network monitoring. If a problem manifests, no time is lost trying to retrace steps or assign blame. A single network service provider takes responsibility and corrects problems expeditiously.

With one provider, network performance is no longer the haphazard outcome of multiple system interactions. A single network provider frees an organization from managing multiple vendors and systems. One provider for seamless connectivity, access, security and communications means only one number to call for personalized support. A single provider results in true partnership, increasing the value of the technology investment.

Security is clearly improved with a single network provider who understands the impact of any vulnerability or breach across the entire network, and knows what steps to take. This saves countless hours for IT staff and could save an organization from a dangerous data breach.

With Spectrum Enterprise as the network provider, experienced technical experts can help plan the network's future. We combine our broad and deep visibility into developing technologies with a focused understanding of each client's unique needs and roadmap.



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CONCLUSION

Like most forms of change, network modernization is exciting but can be complex. Don't go it alone. Spectrum Enterprise guides organizations through each step and facilitates the transition so that they can leverage the value of 100 Gbps Ethernet, SD-WAN, private cloud connections and voice, all with exceptional security. With the right network partner, challenges become opportunities and the network becomes an enabler of improved business outcomes.

Discover how to partner with Spectrum Enterprise to unlock the value of your network. [Learn more](#)



Endnotes

- 1 "What we know now: The state of digital transformation today." Celerity. [Digital Transformation Report - Celerity](#)
- 2 "Flexera 2021 State of the Cloud Report." March 9, 2021. [Flexera 2021 State of the Cloud Report Press Release](#)
- 3 "IDC FutureScape: Worldwide Cloud 2022 Predictions." (Doc # US47241821), by Dave McCarthy, Phil Goodwin, Rob Brothers, Jennifer Cooke, Al Gillen, Chris Kanaracus, Peter Rutten, Andrew Smith, Lara Greden and Mickey North Rizza, October 2021.
- 4 Ibid.
- 5 Putting digital at the heart of strategy." Deloitte Insights, April 22, 2021. [Digital acceleration and strategy | Deloitte Insights](#)
- 6 "IDC FutureScape: Worldwide Cloud 2022 Predictions." (Doc # US47241821), by Dave McCarthy, Phil Goodwin, Rob Brothers, Jennifer Cooke, Al Gillen, Chris Kanaracus, Peter Rutten, Andrew Smith, Lara Greden and Mickey North Rizza, October 2021.
- 7 Ibid.

Spectrum ENTERPRISE

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.

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