IMPROVE BUSINESS CONTINUITY WITH SD-WAN

Proactively prepare your network for the unexpected

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The world is full of uncertainties from natural disasters and a global health pandemic to economic and political disturbances. These are all things that can disrupt organizations and increase demands on wide area networks (WANs). Tens of millions of people are now working from home and need to connect to work-related collaboration, communication and productivity applications.[1]

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Since the spring of 2020, remote user traffic has shot up nearly 900 percent and video conferencing has increased threefold.[2] As those applications increasingly strain bandwidth, IT professionals say they plan to increase their spending on cloud applications by roughly 50 percent in the next year.[3] Add to that 1.6 million gig economy workers who are disrupting traditional networking environments.[4] Meanwhile, there's a continuing trend toward lean IT departments, which means fewer in-house resources and tighter budgets.[5]

What's truly needed to support these changes are agile networks that can ensure business continuity. Your network needs to be flexible enough to adapt to change quickly, securely and reliably.

A reliable network is critical to business continuity planning and needs to be deliberately designed and implemented to minimize network issues or failures. In this white paper we examine how a software-defined wide area network (SD-WAN) solution can help keep your organization up and running. Now is the time to leverage your internet infrastructure to build an SD-WAN — before the next unexpected event occurs. Continue reading to learn why.

Current network architectures are no longer enough

In years past, networks were built with equipment and services from many different vendors. A patchwork of technologies, these networks are challenging to manage and change quickly, while also making it difficult to rapidly add or drop branch locations as needs shift.

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The sheer volume of equipment makes network survivability an issue as older parts of a network, such as routers and switches, age and fail over time. Simply replacing the equipment can be challenging as it was often installed by IT professionals who may have left the organization without leaving a blueprint for the next person to follow.

Current networks can also be difficult to manage remotely, requiring staff to be on site to troubleshoot issues due to the amount of equipment supporting a network. This type of IT support, especially for distributed locations that require travel, can be difficult or impossible during a health crisis or natural disaster.

Additionally, networks that performed well when everyone was working on site may not perform as well when staff must work from home all at once. Critical applications used by employees may not perform as well as workloads compete for bandwidth when they try to access the network. From a security standpoint, networks can also be more susceptible to a data breach when remote employees don't understand how to correctly connect to VPNs.

Even during normal operations, the stability of legacy networks can be threatened when key staff leave and take essential institutional knowledge with them.

SD-WAN answers these challenges

SD-WAN acts as an overlay on top of your WAN, enabling efficient, centralized management of network resources and bandwidth while contributing to business continuity. In essence, SD-WAN makes changes in real time to keep your network at peak performance no matter what's happening in the world.

SD-WAN eliminates the need for many physical networking components by moving their functionality to the cloud. That means fewer points of failure, with hardware issues becoming even less of a concern when they are upgraded in a timely fashion as part of a managed service.

If a piece of customer premises equipment (CPE) does fail, SD-WAN can automatically transfer traffic to a standby unit in a high-availability configuration that ensures uninterrupted service. The same is true for internet connections. If a connection goes down for any reason including natural disaster, SD-WAN can automatically reroute traffic over the remaining available connections to keep your organization up and running.

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SD-WAN can automatically reroute traffic during network outages while continuing to efficiently allocate bandwidth in real time.

The virtual network architecture of SD-WAN also helps better optimize the bandwidth you already have by seeking out underutilized connections. This not only increases network performance during good times, it plays an important role in making sure critical applications have priority when staff suddenly work from home in times of crisis such as a pandemic. This helps remote workers stay as productive as possible.

A cloud-based management portal that provides real-time data can give you visibility and insight into your network at any time, from anywhere. This visibility improves daily network administration and can inform larger technology initiatives. It also makes outage resolution easier during times of crisis by giving IT insight into the status of individual network components.

Another advantage of SD-WAN is ease of deployment. Since SD-WAN hosts many premises-side functions in the cloud, deployment is simplified and CPE is reduced. This streamlines routine IT maintenance and expedites the process of bringing new or existing sites into the network. Regardless of internet access type, multiple locations can be centrally managed in a single, unified network fabric. SD-WAN deployments are also flexible and can utilize, extend or replace existing WAN solutions.

Should additional bandwidth be needed, you can procure it on a site-by-site basis, tapping in to lower-cost options for sites that have less demanding requirements for performance, uptime or security. Cloud applications and cloud-hosted infrastructure and workloads stay available and work as intended, based on the priorities you define for the network.

SD-WAN can also be implemented as a provider-managed service, simplifying the complexity of maintenance and ongoing management. When you partner with a trusted provider to manage your network, you are in turn extending the capacity and capabilities of your team. This reduces the strain on your IT staff and ensures your network stays operational in the event of an on-premises disaster that prevents your staff from being on site. It also adds a layer of protection if key IT personnel leave your team since a provider is managing the network for you.

The hardware included with a managed SD-WAN solution offers another important safeguard for business continuity. In addition to eliminating up-front capital costs for related networking equipment, managed SD-WAN:

- Keeps network components standardized.
- Includes configuration and installation.
- Allows technical personnel to modify settings remotely from the cloud, requiring less expertise on site to manage hardware.
- Enables fast equipment replacement.

A managed SD-WAN solution can also make networks more resilient to cyberattacks. For organizations that don't have a purpose-built solution in place or that are seeking to upgrade their security, some providers offer a network firewall and unified threat management (UTM) with their service. In many cases, managed security may improve that of an organization's existing network, providing enhanced protection.

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Proactive planning tops reacting in the moment

The first step to beginning successful business continuity planning is to move beyond reactive plans of the past that were geared solely toward restoring a network after a disruption. Instead, focus on an agile and scalable plan that includes a solution to keep your network running at full operational capability no matter the conditions. SD-WAN can make that happen and we can help.

Spectrum Enterprise brings more than two decades of managed services experience to our collaboration with your team. As one of the largest facilities-based network service providers in the U.S., we are uniquely qualified to be your single networking partner and can tailor a complete solution to meet your needs.

Spectrum Enterprise was one of the first providers to achieve MEF 3.0 SD-WAN services certification as our SD-WAN solution passed a rigorous set of tests based on the requirements defined in MEF 70 SD-WAN service attributes.[7] We have a history of helping organizations equip their networks to meet the emerging demands of cloud-based applications and workloads. Our team will work side-by-side with you on your migration path, assisting with the planning, design, implementation, management and connectivity of your SD-WAN solution — ensuring it meets your needs today and tomorrow.

To learn more about the benefits of SD-WAN and how to create an actionable migration plan, read our eBook, "Migrating to SD-WAN."

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About Spectrum Enterprise
Spectrum Enterprise, a part of Charter Communications, Inc., is a national provider of scalable, fiber technology solutions serving 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. Spectrum Enterprise's industry-leading team of experts works closely with clients to achieve greater business success by providing solutions designed to meet their evolving needs. More information about Spectrum Enterprise can be found at enterprise.spectrum.com.

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