Frontier BUSINESS

Frontier Managed SD-WAN

WHITEPAPER

Working Remotely: The Increasing Demand for SD-WAN

As the traditional Ethernet/MPLS network market ages and organizations are pushed into remote work as the new normal, many businesses need a network infrastructure that delivers more flexibility and visibility, and simplifies the management of their network. By virtualizing WAN connections, SD-WAN not only meets these needs, it delivers even more.

Remote Work Challenges Drive SD-WAN Growth

COVID-19 shifted most businesses to remote work almost overnight, significantly impacting legacy networks designed for on-site employees. This created issues that included:

Poor web conferencing video quality

Web conferencing requires high quality video to facilitate remote collaboration, and many businesses found their traditional networks weren't up to the task.

Expensive bandwidth increases

Remote work also accelerated bandwidth usage, but increasing bandwidth in a traditional network can be cost-prohibitive.

Remote network management

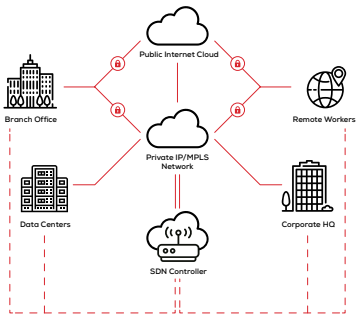
Remotely overseeing distributed networks might've been a five-year goal for some organizations, but the pandemic made it an immediate necessity.

Why are organizations transitioning to SD-WAN from more traditional Ethernet or MPLS networks? Because SD-WAN offers cost-effective solutions for all three challenges, helping organizations quickly pivot to remote-first operations.

What is SD-WAN?

What is SD-WAN? Software-Defined Wide Area Networking offers a transformational way to simplify branch networking and ensure optimal application performance. Unlike traditional WANs, SD-WAN increases network agility at significant cost savings.

How does it work? SD-WAN virtualizes traditional WAN connections, moving network management into the cloud. This means IT staff can see and manage the entire network (regardless of service provider) via cloud-based software, prioritize traffic and applications, even configure hardware and devices remotely. This creates the flexibility today's organizations need to adapt and grow in a remote-first environment.



SD-WAN Criteria

According to TechTarget[1], most forms of SD-WAN technology meet these criteria:

- Features a virtual overlay that is transport-agnostic and abstracts underlying private or public WAN connections like MPLS, Internet broadband, fiber, wireless, or Long Term Evolution (LTE).
- Centralizes network control and enables agile, real-time traffic management.
- Is managed by a centralized controller, and the software enables IT staff to remotely program edge devices and educe provisioning times, minimizing or eliminating the need to manually configure traditional routers in branch locations.

Solving the 3 Most Common Remote Work Growing Pains

SD-WAN solves addresses three common issues experienced by businesses using other network configurations.

Improves quality of cloud-based services

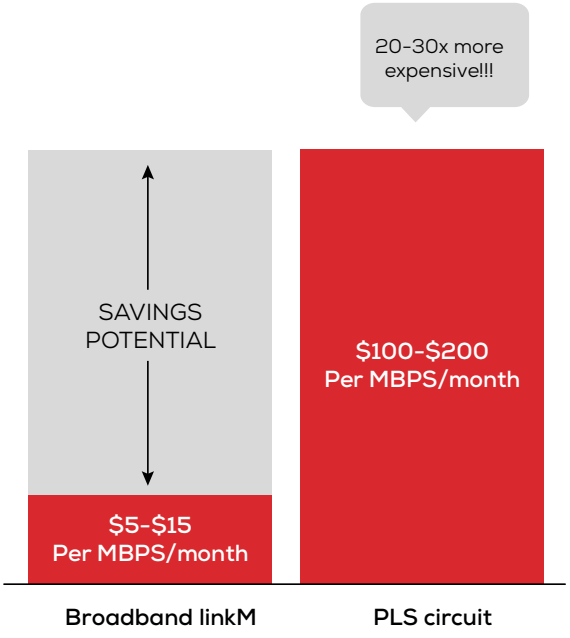
Businesses relying on broadband for cloud services like video calling and web conferencing can struggle with quality issues. SD-WAN eases this issue in multiple ways including prioritizing application traffic to improve video call quality and mitigating other cloud service issues like latency.

Increases bandwidth cost-effectively as needed

Instead of relying on solely on MPLS, SD-WAN can scale with Internet bandwidth which costs 80 to 90 percent less than MPLS. This gives businesses the flexibility to increase bandwidth as needed and pay only for what is used (versus paying for a set amount of data monthly regardless of use).

Delivers completely remote network visibility and management

The remote-first workplace means organizations need the ability to oversee their entire network, regardless of location or multiple service providers. SD-WAN makes it possible not only to see a complete network but also make global and local changes, configure hardware and software remotely, and review network performance metrics in real time.



WHAT DOES THIS MEAN IN BUSINESS TERMS? SAVINGS, FLEXIBILITY, SIMPLIFICATION, AND OPTIMIZATION.

Business Advantages of SD-WAN

SD-WAN delivers four significant advantages to businesses of varying sizes:

Application optimization

SD-WAN provides direct, secure access to enterprise and cloud applications regardless of users' location. It consolidates network management and performance monitoring across multiple WAN links and service providers to help ensure uniform oversight and a higher quality user experience.

Increased flexibility

Because SD-WAN network oversight is cloud-based, it's possible to apply a single network profile to all locations. This typically occurs via a provider's orchestration layer that brings together all services and applications including third-party networks and private and/or cloud apps.

Cost savings

SD-WAN can eliminate potentially expensive routing hardware by provisioning connectivity and services via the cloud. It can also reduce hardware delivery costs with deployment options such as a virtual machine on a commercial-off-the-shelf (COTS) device or an existing x86-based router.

Easier provisioning

SD-WAN makes provisioning branch offices faster with features such as automated, zero-touch deployment and streamlined configuration of hardware and software.

Whether digital transformation has been on a business's radar or is driven more recently by necessity, SD-WAN offers significant advantages that bring flexibility, responsiveness, cost savings and performance optimization to any network.

About Frontier Business

Frontier Business provides enterprise customers with connectivity, voice, security & networking solutions, **including Managed SD-WAN**. Frontier Managed SD-WAN delivers the network flexibility businesses need in today's fast-moving marketplace along with a customized design and implementation process, proactive monitoring, and 24/7 customer support.

1. https://devops.com/the-biggest-motivators-and-barriers-for-sd-wan-adoption-in-2021/#:~:text=As%20we%20head%20into%202021,%2Dto%2Dback%20Zoom%20calls.