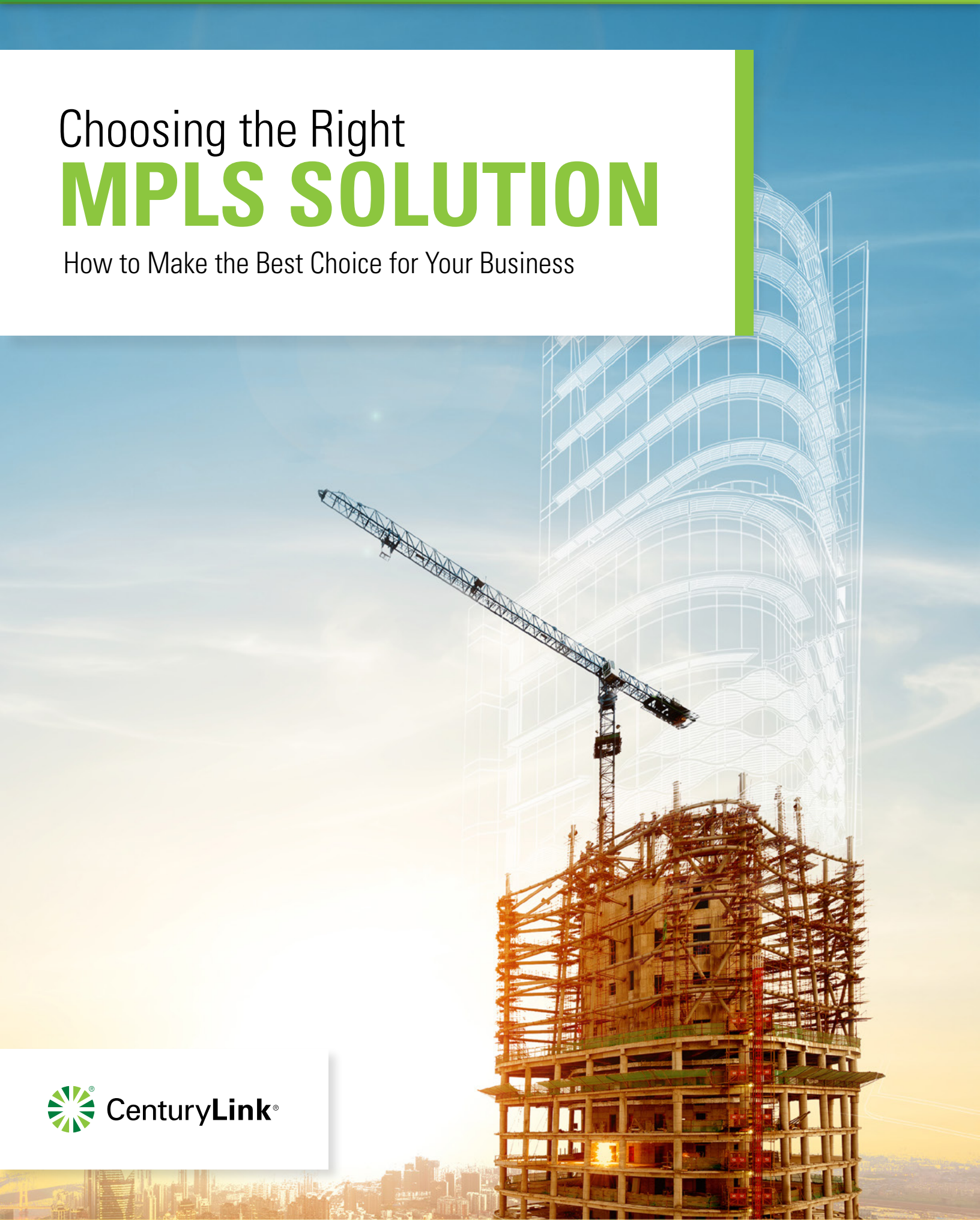
HOW-TO GUIDE

Choosing the Right MPLS SOLUTION

How to Make the Best Choice for Your Business



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Introduction

For more than a decade, companies have relied on Multiprotocol Label Switching (MPLS) to create secure, private networks using IP technology. Packets are routed securely across the service provider owned MPLS network to connected users. Companies can reach that network across the U.S. or internationally using virtually any access type, while the service provider manages routing and application prioritization.

But more recently, network innovations have kick-started, providing greater security, control and visibility into public virtual private network (VPN) routing using software-defined WAN (SD-WAN). This software-based network management overlay supports any connection type, automated dynamic path selection, a simple interface for managing WAN, application policy management, and lower cost, more efficient bandwidth management.

Given these new innovations, it might seem like common sense to move away from MPLS. **Not so fast.**

MPLS still provides private routing and full QoS for applications which are valued by IT pros. With business-class Internet services, no one can guarantee performance or availability. And while network engineers can implement quality of service on their edge routers to give some Internet-bound traffic priority over others, they can't match the privacy and control provided across the WAN by MPLS. MPLS providers offer service level agreements that typically specify uptime metrics, performance benchmarks, and trouble-ticket response time.

Rather than discarding MPLS, applying a SD-WAN overlay on top of an MPLS network with broadband connections enables the best of both technologies.

In this guide, we'll explain why MPLS may be a good fit for your company. We'll also look at why choosing the right vendor—one that not only offers great service and solutions but also asks the right questions for your business—will help ensure your organization's success.

> "MPLS helps maximize our ROI and productivity—it makes it easy to interconnect sites with each other to handle voice and video traffic patterns and MPLS is operationally simpler than managing a large routed network."
>
> **IT professional**, Spiceworks survey respondent[1]

CH. 1

Why Organizations Choose MPLS

While new technologies and business models are giving organizations more options for their network, the priorities stay the same: making the most of their network and IT investments to improve operational efficiency while ensuring security of enterprise applications.[2] In a recent Spiceworks survey, 72% of respondents cited MPLS as critical for network functionality, with improved security, reliability, and performance identified as top benefits.[1]

For these requirements, there's no better network tool than MPLS.

While MPLS may not be the best option for cloud-based applications, it remains a great tool for on-premises applications. Plus, it allows companies to connect geographically dispersed locations through a robust, high-performance WAN solution.

MPLS allows businesses to:

- Take the burden of network routing off IT resources
- Add previously unsupported remote locations easily with any-to-any access connectivity
- Enable national to global secure IP network routing with reduced off-net hops
- Assign top prioritization to your most delay-sensitive packets with multi-tiered quality of service (QoS)
- Avoid network congestion and security breaches with managed routing

As more applications move to the cloud, increased bandwidth becomes ever more important. Extending your MPLS network with SD-WAN can be the perfect solution—blending speed, security, bandwidth, and cost.

> "The top benefits for us with the new MPLS network certainly are the increase in speed, the decrease in latency, improved IP phone connectivity, improved phone quality, and faster processing times."
>
> **Dan Osby,** Vice President of IT, First Southwest Bank[3]

CH. 2

What Types of MPLS Solutions Will Help Your Organization?

In the search for a better solution for accessing cloud applications, SD-WAN, broadband and the Internet can help. But by themselves, each have limitations for enterprises.

MPLS can power through those limitations. MPLS can work with broadband, the Internet, and SD-WAN to complement each other and provide that strong, secure, private network that is necessary in most industries. MPLS VPNs enable enterprises to procure high-speed, cost-effective, and reliable bandwidth to run voice, video, Internet, and data applications.

When organizations want to add bandwidth, they can put SD-WAN on top of MPLS with broadband Internet access.

No matter where organizations want to go with their network, no matter where the future leads, MPLS provides a solid backbone for your WAN—and no new technology has changed that.

MPLS isn't going anywhere. Companies are increasingly moving to a hybrid WAN model with both MPLS and high-speed Internet or carrier Ethernet in a single location or alternates between them throughout the WAN.

> "MPLS is not dead. It's still a backbone of most WANs."
>
> **Andrew Lerner,** Research Director at Gartner[2]

3 What Should You Look for in a Provider?

It's important to pick the right provider for your MPLS solution—one who looks at your whole system and listens to your goals and plans to determine the best total solution. It should be a carrier who not only provides great performance and service for your MPLS, but who also understands how to integrate it with other options for an effective hybrid network.

Look for a provider who has a proven track record of:

- Reliable performance with guaranteed QoS to support business-critical, VoIP, and multimedia applications, with SLAs for network performance
- Flexibility and security designed around your specific needs and offering private networking with any-to-any connectivity, along with the ability to add secure Internet connection and direct cloud connections
- Universal access to extend connectivity to remote workers, business partners, suppliers, and customers around the globe
- Centralized management and minimal hardware devices, saving time on management and costs on maintenance
- Exceptional local scale with connectivity to secure cloud-based data center services
- Established hands-on experience designing, operating, and maintaining large enterprise networks

YOUR BUSINESS IS ONLY AS STRONG AS ITS CONNECTIONS.

CenturyLink has had extensive discussions with companies about what they envision for their network—for now and the future. In fact, companies nationwide trust CenturyLink to connect their business information securely with employees and customers every day.

CenturyLink understands how to help move companies toward the future of cloud applications and dramatically changed network configuration.

It brings technology together to meet organizations' changing needs:

- Comprehensive business productivity solutions, with multiple options for voice, networking, cloud, and applications—**all from a single, trusted partner**
- Innovation building blocks, from hosted application environments to software-defined networks that support anytime, virtually anywhere access
- Scalable hybrid networking solutions that never hold business back and outsourcing arrangements with industry-leading partners
- Affordable managed services with assets CenturyLink owns for true investment protection

CenturyLink Networking is a converged networking service based on leading technologies. Companies can build comprehensive networks using a customizable variety of legacy ATM and Frame Relay protocols, advanced Internet protocol, (IP)-centric MPLS, Ethernet and virtual private LAN service (VPLS)-based solutions.

CENTURYLINK MPLS OFFERINGS

CenturyLink® MPLS ENABLES YOU TO:

- Add local or remote employees, partners, or customers to your secure managed network, backed by SLAs
- Free up IT staff by letting CenturyLink handle secure transport of sensitive data
- Leverage a single, dynamic network platform for the transport of voice, video, Internet, data and cloud-based applications

CENTURYLINK MPLS SERVICE FEATURES:

- End-to-end performance metrics with monitoring
- Flat-rate and usage-based billing options
- A broad portfolio of services for data traffic applications
- Disaster recovery built into the network
- An easy-to-use portal for orders, changes, visibility, and control
- Eight templates for quality of service, customizable for varying applications

CenturyLink MPLS solutions are an excellent resource for companies that want to enhance their existing network, as well as those who already have MPLS through a different provider but want to switch to CenturyLink to improve the breadth and secure availability of their applications.

Conclusion

As networking technology evolves, it's important to remember that there are existing solutions that provide the benefits and business outcomes companies are striving to achieve. No matter your organization's current or future networking requirements, MPLS provides an IP layer 3 alternative backbone for that network—keeping it upright and functioning longer and more reliably than public VPNs can provide on their own.

So when it's time to update your network, give it a strong foundation with an MPLS solution from CenturyLink. With a flexible portfolio of technology and services, CenturyLink can be your single, trusted provider for years to come.

Discover the full value of CenturyLink MPLS solutions.

LEARN MORE

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[1] Spiceworks survey of 250 U.S. IT decision-makers on behalf of CenturyLink, June 2017.

[2] "2016 Enterprise WAN Adoption Trends: Ethernet & EPLS Usage Study, Hybrid WAN on the Rise," *Frost & Sullivan's Telecommunications Strategic Forecasting*, May 2017.

[3] "First Southwest Bank Lays Foundation for Growth with CenturyLink," *CenturyLink*, 2015. http://www.centurylink.com/asset/business/medium-business/documents/first-southwest-bank-cs150698.pdf

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