



# Turning SD-WAN to Your Advantage

## A strategy for service provider success in the changing WAN market.

The software used in a software-defined WAN (SD-WAN) dynamically routes network traffic across a mix of WAN links according to customer policies. Among enterprises, interest is mounting in using this capability to bypass IP MPLS VPNs for direct branch-to-cloud traffic—traffic for which some enterprises can't cost-justify MPLS's enhanced features and service guarantees.

With IDC predicting that the SD-WAN market will grow to \$6 billion<sup>1</sup> by 2020, alternative WAN services could take a significant bite out of providers' IP MPLS VPNs revenue streams. Providers are understandably concerned.

Fortunately, options exist to give service providers the power to exploit the SD-WAN opportunity while also protecting their customer bases. Success in this area requires strategic service positioning and an open virtualization platform that can support SD-WAN and other high-value managed virtual network services.

### Capitalizing on the Trend

At Juniper, we believe that providers will triumph by integrating SD-WAN with their IP MPLS VPN services. SD-WAN runs on virtualization-ready CPE at a branch or other customer site. Customer-specified policies determine how to best route traffic over a WAN that might contain IP MPLS VPN, broadband Internet, wireless, and other connectivity services.

If you're an incumbent service provider, you can proactively embrace SD-WAN and position it as an enhancement to IP MPLS VPN. Offer transport service bundles of tightly integrated WAN circuits and deploy SD-WAN services to allow dynamic routing among them. Then, take the initiative to approach existing customers with the full solution.

This strategy will help protect some MPLS revenue and generate incremental business from the SD-WAN before a competitor can infiltrate existing accounts. Just as important, the virtual CPE on which you deploy your SD-WAN service will provide a modern, automated platform for delivering the many other managed services that enterprises are demanding.

### Incremental Business Opportunities

Enterprise customers will continue to require IP MPLS VPNs in certain segments of their networks, such as data centers. The most basic opportunity for providers, then, is to add incremental SD-WAN business and protect some MPLS revenue. SD-WAN adds value in the form of dynamic,

# Turning SD-WAN to Your Advantage

application-aware routing to what otherwise might be a conglomeration of independent WAN links—and service providers can charge for that value.

From a pure bandwidth standpoint, imagine that an enterprise customer has a 20-Mbps IP MPLS VPN service in place with a given service provider for data center connectivity to its main branch offices. The service provider could augment that business with SD-WAN capabilities and an additional 100-Mbps broadband service that connects the customer's branch location to the cloud. This solution translates into a substantial bandwidth increase and also higher customer satisfaction. No more YouTube buffering, and no more traffic congestion for critical applications.

With the technology enablement and new cost structure, the same enterprise customer might now consider connecting smaller branches, also using SD-WAN, with purely broadband connections. The customer company gets the connectivity it needs at an attractive price, and the provider gets more incremental business.

What would be the outcome in that situation if the provider continued to offer IP MPLS VPN without SD-WAN capabilities? Enterprises that want a mix of WAN services that includes SD-WAN dynamic routing might shop their whole bundle of requirements elsewhere. The provider stands to lose not only potential new SD-WAN revenue, but the entirety of that customer's business.

## Agile Platform for High-Revenue Services

At Juniper, we see service provider SD-WAN strategies as encompassing more than just network transport revenues. We believe they also hinge on deploying a variety of lucrative services, of which SD-WAN is one type. In addition to dynamic path selection, the SD-WAN could also deliver customers greater visibility into their WAN performance and network analytics, perhaps through an intuitive customer portal, for increased customer engagement and loyalty.

The opportunities don't stop there. Business customers require managed security and other network infrastructure services along with connectivity. Research from IDC<sup>2</sup>, for example, indicates that within 12 months, more than 50 percent of IT departments will be in the market for managed firewall services, and 30 percent will be ready to buy WAN acceleration services. Service providers can use [Network Functions Virtualization \(NFV\)](#) to layer these services onto the virtual CPE platform alongside the SD-WAN.

Building additional managed enterprise services is an important way for incumbent and new service providers to differentiate their SD-WANs. With NFV, providers can achieve this differentiation quickly, using automation to turn up services and features for their customers upon request. Without such additional enhancements, SD-WAN alone could quickly become a "me, too" commodity service.

# Turning SD-WAN to Your Advantage

Open [virtual CPE platforms](#) are key to delivering the services that customers demand. Some CPE platforms limit you to deploying the SD-WAN and NFV services offered only by the virtual CPE vendor. At Juniper, we believe that service providers need the ability to run a mix of vendors' virtual network functions (VNFs) so they can offer a choice of services that meet their customers' preferences.

## Embracing Change

New network requirements and trends let service providers shape their own destinies. Consider how some service providers succeeded in the voice market by embracing, rather than fearing, voice over IP when it arrived to displace legacy voice revenue. Like them, today's providers can come out on top with virtual services that add value over their competitors' offerings.

Offloading IT complexity in favor of services is an enterprise trend, and business customers want simple solutions that deliver affordable branch-to-cloud links plus new managed services and analytics. For high-priority data center traffic, they'll want to keep their business-grade MPLS links with end-to-end service-level guarantees.

Providers that can deliver all these aspects of networking in an integrated, managed solution give their customers reasons to deepen relationships with them. And that helps cement loyalty and future revenues.

Juniper has invested heavily in SD-WAN technology development in anticipation of the next-generation enterprise WAN. We believe that the most powerful solution a service provider can offer is one that's open, with very high performance and embedded security, and can be integrated into your current IP MPLS VPN offering.

Learn more about how to develop this solution in the [resources](#) for this article.

Publication Date: October 17, 2016

<sup>1</sup> IDC, [Cloud and Drive for WAN Efficiencies Power Move to SD-WAN](#), Doc # US41101416, Mar 2016.

<sup>2</sup> IDC Worldwide SD-WAN Survey Special Report, May 2016.