



In partnership with



How SD-WAN will Transform the Network

And lead to innovative, profitable business outcomes



By 2020, more than **50 percent** of WAN edge infrastructure refresh initiatives will be based on SD-WAN versus traditional routers.¹

The reason for moving to Software-Defined Wide Area Networks (SD-WAN) is that businesses in nearly every sector are seeking gains in productivity, efficiency and cost reduction won from cloud-based applications and the Internet of Things (IoT).

Existing wide area networks—based on Multiprotocol Label Switching (MPLS)—are unable to provide the flexibility to increase bandwidth, cloud connectivity optimisation, or enhanced security to achieve the benefits of cloud-based apps and IoT technology.

That's why companies are turning to Cisco and Telstra for enterprise-grade SD-WAN technology, with intent-based networking, to solve their challenges through a carrier- and transport-agnostic cloud-delivered overlay WAN architecture. Telstra managed SD-WAN networks, powered by Cisco, evolves your network to be more efficient, secure and agile.

SD-WAN can enable digital and cloud transformation.

On the following pages, we'll show how companies are benefiting by transforming the network through Telstra managed SD-WAN, powered by Cisco.

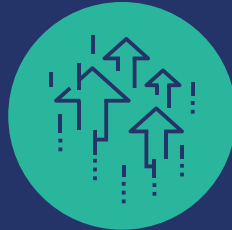


Benefits you can achieve by using SD-WAN

Examples of how organisations have achieved success include²:



5-fold improvement in Office 365 performance for an energy provider



100% application uptime during network failures for a national food distributor



4-fold improvement in application latency for a healthcare provider



12-fold improvement in change control time for a 3,000-site bank



M&A integration within 2 weeks for a Fortune 50 healthcare provider



Guest wireless deployment at more than 1,000 stores for a retailer



Securely isolated more than 100 business partners for a manufacturer with more than 1,000 sites in the US

Outcomes such as these illustrate why organisations are using SD-WAN. This shift—along with the surge in IoT, mobile devices, and media-rich applications—is enabled by the increase in bandwidth and the predictable and fast performance that SD-WAN can deliver.

And as employees and customers rely on mobile devices to run applications and watch video both on and off site, the need for a more optimised network continues to grow. SD-WAN can efficiently provide a high level of optimisation and bandwidth, whether at headquarters, branch offices or at other locations.

How important is SD-WAN?

- **80%** of organisations will primarily use public cloud by 2019
- **10 billion** mobile-connected devices by 2019

SD-WAN delivers on all fronts

Organisations need to provide users with dynamic access while achieving agility in responding to changing demands. SD-WAN powered by Cisco delivers on those ends as well as:



Provides optimised cloud access and a better user experience. Many networking cloud solutions offer a mixed bag of options, a lack of consistency and a poor user experience. SD-WAN—with its optimised performance for major SaaS applications—provides agile solutions to onboard public cloud access on Amazon Web Services® (AWS) and Microsoft Azure®, ensuring great user experiences.



Delivers reliable application performance and availability. Without dependable performance, business-critical applications can crash. SD-WAN meets tough service level agreements (SLAs), even during link outages and other network events.



Offers greater agility. Existing WANs lead to infrastructure sprawl with their complex amalgamation of devices and appliances. SD-WAN enables faster, easier WAN deployment and operation, as well as faster performance while using less bandwidth, and helps you deploy new revenue generating services in minutes—not months.



Provides advanced threat protection. Given the increased sophistication of cyber threats, traditional WANs can leave businesses unprotected. SD-WAN employs the zero-trust model. Every component mutually authenticates each other, all edge devices are authorised before they are allowed into the network, and every packet is encrypted using SSL and IP Security (IPsec) technologies.

Continued on next page

SD-WAN delivers on all fronts



Ensures a resilient network. Traditional WANs can be prone to faults, even during normal operations. SD-WAN is designed for fail over and to choose best or optimised path at all times.



Separates the control plane and data plane. Without SD-WAN provides a clear separation between management-plane, control plane and data plane. This enables each component to work independently and efficiently, as well as facilitates scaling of components based on the network needs.



Enables zero touch provisioning. SD-WAN routers are configured and managed using zero touch provisioning (ZTP), cutting device and maintenance operational expenses.

Why will SD-WAN make all the difference?

- Up to **50%** is expected as the annual increase in enterprise bandwidth and video adoption
- **30 billion** IoT devices will be connected to the internet by 2020

Intent-based networking takes SD-WAN into the world of machine learning. [See next page.](#)

SD-WAN with intent-based networking constantly learns, adapts and protects the network

The advantages of intent-based networking include:

- **Simplifying policy management** across all your remote sites through machine learning and advanced orchestration with centralised cloud managed fabric to improve scale, performance and monitoring of your WAN, while reducing the complexity of managing network policies
- **Securely connecting users to applications** over any type of connection including MPLS, Internet and 4G LTE
- **Automating the provisioning** of new branch locations and network services in minutes rather than months
- **Offering end-point flexibility** to support any type of end-point (physical or virtual) to deliver rich services including WAN Op, firewall or basic WAN connectivity as well as branch, WAN aggregation and cloud
- **Enforcing multi-layer security** for hybrid cloud-based and on-premise infrastructure including encryption, authentication, segmentation and service chaining
- **Enhancing application quality of experience** through real-time application optimisation for productivity and SaaS applications, and intent-based dynamic path control for network and application performance optimisation
- **Using data analytics** to optimise the application experience

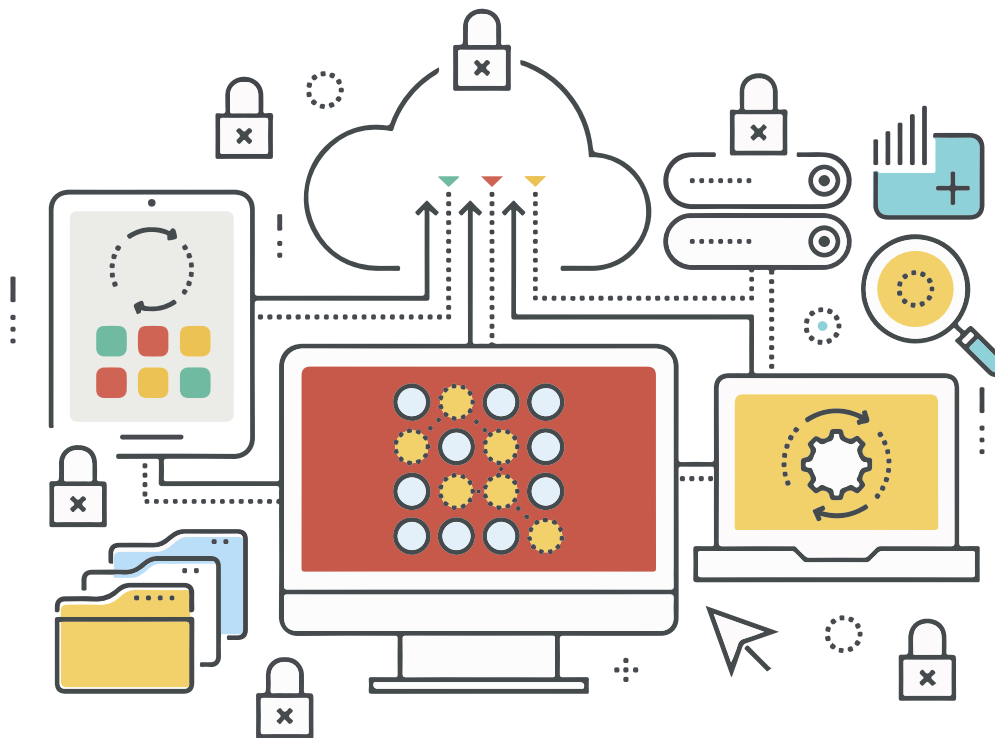
More reasons why SD-WAN is important

- **20-50%** increase in enterprise bandwidth per year through 2018
- **73%** growth in mobile devices from 2014-2018

Need to help your organisation transform the network? [See next page.](#)

SD-WAN delivers an end-to-end secure platform across the access, WAN, data center and cloud for the digital business

SD-WAN simplifies how organisations move workloads to any cloud, consume cloud hosted applications or enable new services in remote locations. By providing the strongest security and the flexibility to support any platform, SD-WAN ensures that your users always have the best possible experience with the highest protection over any type of WAN connection. Using advanced analytics, SD-WAN makes your WAN smarter by continuously optimising application performance and providing protection from the sophisticated threats.



Three more reasons why your business needs SD-WAN

- **90%** of revenue is generated in the branch
- **80%** of users are served by the branch office

Want to know more? [See next page.](#)



Get the most out of your network

Whether fixed or mobile, private or public, your network connects your people, resources, products, services and customers. That makes it as fundamental to the success of your business as the products and services you create. Your business needs a network that enables you to seize opportunities quickly in both local and global markets, while maximising resources.

Telstra enables you to evolve your network to be more efficient, secure and agile to keep up with a dynamic business environment.



Learn More

Call us today to schedule a meeting, and we'll answer your questions.

Telstra

 1300 835 787

 insight.telstra.com.au/sdwan

Find out more about SD-WAN here.

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¹Skorupa, Joe; Lerner, Andrew; Canales, Christian. Forecast: SD-WAN and Its Impact on Traditional Router and MPLS Services Revenue, Worldwide; November 7, 2016. <https://www.gartner.com/doc/3505022/forecast-sdwan-impact-traditional-router> (accessed December 19, 2017)

²Cisco Enterprise Grade SD-WAN, <https://www.cisco.com/c/dam/en/us/solutions/collateral/enterprise-networks/sd-wan/nb-07-enterprise-grade-wp-cte-en.pdf> (accessed December 19, 2017)