FAQ

FREQUENTLY ASKED QUESTIONS:
SOFTWARE DEFINED NETWORKING

Enterprise Wide Area Networks (WANs) are changing. The daily demands of adapting IT operations to meet complex digital transformation and 'cloud first' strategies necessitates an appropriate dynamic infrastructure.

This needs to be achieved within the constraints of minimising operational costs, delivering a good service and managing potential security risks.

Software Defined Wide Area Networks (SD WANs) delivers that dynamic approach. It does this by using secure cost-effective internet connectivity and offering supplier flexibility. The two together become the main drivers for reducing operational costs.

So, what exactly is SD WAN, why is this different to using internet with a traditional WAN service and why should you be thinking about SD WAN for your enterprise?

What is SD WAN?

An SD WAN is a multi-site network that is built using a single software controller to provision and manage all the WAN devices in your network. It greatly simplifies provision and management of devices compared to using the traditional command line interface (CLI) on each and every router, particularly when using internet virtual private networks (VPNs).

Effectively, this creates a software 'layer' on top of your network 'plumbing' using a set of predefined, easily deployable and error free site configuration templates for various application scenarios.

The SD WAN technology permits proactive routing around potential problem areas such as a capacity or performance issue in the network using predictive analytics.

One additional benefit is the option to unbundle the network provider bandwidth from the router hardware. This gives IT departments the freedom to choose appropriate WAN internet service providers based on price and capability, creating cost savings and greater network efficiency.

Why should I consider SD WAN?

Businesses should consider an SD WAN based on the numerous technological, commercial and business benefits that this delivers, such as:

- SD WANs are easier to change due to the way the routers are dynamically configured and how secure internet VPN tunnels are provisioned between remote sites/cloud providers.
- The SD WAN's technology delivers the ability to connect a new site via the internet in days rather than waiting weeks (and possibly months) for individual expensive MPLS circuits.
- SD WANs can be a mixture of appropriate network connections dependent upon the requirement of the users on-site and can therefore happily transmit normal inter-office traffic as well as voice and video.
- SD WANs will reduce your ongoing network costs. Rather than having expensive service provider MPLS connections with longer contractual lock-in, you have the flexibility to pick cheaper 4G, Wi-Fi or internet connections with lower installation and ongoing contractual commercials.
- The SD WAN technology can also be deployed on network function virtualisation (NFV) platforms creating multiple functions on the same network device. This can include not just network/security functionality but also compute and storage requirements, thus offering a scalable and cost-effective platform with a single CAPEX outlay and reduced ongoing OPEX.

What problems does an SD WAN solve?

The problems that a traditional enterprise WAN can create is inflexibility and expense. Enterprise MPLS networks are notoriously difficult, slow and expensive to add/move/change whereas other lower cost connections (where appropriate) using internet can be provisioned in a few hours or days, supporting business change and improving user satisfaction.

Also, with some smaller remote office sites, expensive MPLS connections are overkill and so having the ability to provision less expensive 4G, Wi-Fi or internet connection is a benefit. Additionally, if an existing site required a diverse network connection quickly to support DR planning, back-up internet circuits can be implemented quickly and inexpensively improving business continuity.

How do I migrate from my current WAN and how long typically can it take?

Migration to an SD-WAN takes the same time and follows the same methodology as a traditional WAN service migration.

My enterprise WAN is installed around the world. Does this prevent me from migrating to an SD WAN?

No.

At what point in my current WAN contract should I start to consider migrating to SD WAN?

Λ Ideally, if you are 12-18 months from your current contract expiry, this would be an ideal time to start considering if deploying an SD WAN would be of benefit. This will allow enough time for adequate planning, sourcing and migration.

Do I need to change all my current bandwidth providers?

Λ Not always, although some change may be needed to allow the existing bandwidth to be 'decoupled' from their existing customer premise equipment, which in turn, can be financially beneficial.

I have existing router hardware. Will I need to upgrade my entire hardware estate?

Λ The answer is probably. Some platforms can be upgraded with the appropriate software upgrades but if your platform is more than a few years old and/or is owned by the provider then it will need to be replaced.

I have a fully managed MPLS WAN which is monitored by the bandwidth provider. How will SD WAN improve what I currently have?

Λ With the right planning, the SLAs and service overall should ultimately be similar if not better, particularly if you can replace one expensive MPLS circuit with 2 less expensive internet circuits, ultimately improving your network reliability. However, there can be a trade-off on SLAs when comparing MPLS v internet circuits. At the planning stage this trade-off should be fully considered.

Is SD WAN secure?

Λ Yes, it is. It utilises highly encrypted VPN tunnels between locations.

Systal Technology Solutions can help you procure, deploy and manage your SD WAN. Read our Case Study and contact us for further information.

About Systal Technology Solutions

Systal Technology Solutions is an IT Services Integrator. We help our customers optimise IT to maximise the value of technology. We advise on IT strategy, deployment and integration of appropriate technologies, and managing elements of their infrastructure on their behalf. At every stage, we help our customers minimise the cost and maximise the business value of their IT expenditure.

We have experience delivering globally across a wide range of industry sectors. Our people strive to deliver excellent customer service, to exceed expectations and consistently go that extra mile.