

# SD-WAN and SASE — EVERYTHING YOU NEED TO KNOW



**SD-WAN** (software defined wide area network) technology uses software to intelligently and dynamically route network traffic from A-B according to network conditions or set parameters, while using multiple sources of connectivity technologies. Traffic within an SD-WAN network is secured in encrypted tunnels and the SD-WAN vendor may offer a stateful packet firewall as standard.

### SERVICE ATTRIBUTES OF TRUE SD-WAN

- A secure, IP based transport independent overlay network
- Application driven and policy based dynamic packet forwarding
- Within service assured high availability tunnels
- Across multiple WANS
- And with service automation via centralised management
- Centralised control and orchestration
- May also offer WAN optimisation functionality

## THE MAIN BENEFITS OF SD-WAN

### **COST SAVINGS**

You can dramatically lower connectivity, equipment and network administration costs.

### **VISIBILITY AND CONTROL**

Customers benefit from unprecedented levels of visibility into both legacy and cloud applications and gain the unique ability to centrally assign business intent policies to secure and control all WAN traffic – all from a single location.

#### **PERFORMANCE**

End-user satisfaction is significantly improved due to consistent and enhanced application performance and prioritisation, full utilisation of installed bandwidth and intelligent traffic paths, especially important in multi-cloud environments.

#### **RAPID DEPLOYMENT**

Have a new branch office up and running within days not months, via zero touch deployment.

### **SECURITY**

All traffic flowing across the SDWAN Solutions designed SD-WAN network is encrypted with AES 256 IPsec.

### **FLEXIBILITY**

Customers can rapidly, and without disruption, augment or replace their MPLS networks with any form of broadband connectivity, 4G, LTE, or dedicated Internet access, all of which can be provided by SDWAN Solutions.

"SD-WAN and SASE, when deployed as a properly designed complete solution, becomes a powerful, secure network tool for any and every business – one technology does not replace but actually compliments the other, enhancing performance, productivity and security"



#### **CLOUD CONNECTIVITY**

Unlike MPLS, access to applications hosted in the cloud is direct without the need to be routed via a data centre or centralised HQ hub, thereby saving time and reducing the actual overall bandwidth that is required. **SDWAN CLOUD** further enhances the user experience and simplifies multi-cloud management whilst reducing costs too.

#### **BUSINESS CONTINUITY**

Our designs include multiple connectivity options, providers and technologies at every site on your network, ensuring downtime is avoided. New locations can be live within a few minutes using LTE while **SDWAN CLOUD** simplifies switching between multi-cloud environments, in under 60 seconds.

CONSULT | DESIGN | PROVE | DEPLOY | MANAGE | SUPPORT | RE-TECH



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Despite current myths purporting that SASE has in some way 'replaced' SD-WAN the facts are that an SD-WAN network & SSE security framework combined to form a SASE solution, is the ultimate secure edge network framework

**SSE** (Secure service edge) unifies all security services, including Zero Trust Network Access (ZTNA), Secure Web Gateway (SWG), and Cloud Access Security Broker (CASB), to secure Internet access, access to cloud hosted services, and access to private applications, but does not provide intelligent traffic routing.

**SASE** (Secure Access Service Edge) is a framework that combines SD-WAN (Access) with security services (Secure Service Edge) to offer a complete network and security solution.

"Working with SDWAN Solutions, means I get the best fit SD-WAN vendor integrated with either my existing security, or a new security solution – that's a win-win for me"



### SSE & SASE FRAMEWORK COMPONENTS

#### **ZERO TRUST NETWORK ACCESS**

Provides full visibility and control over users, both managed and unmanaged applications, and all devices that have access to your corporate network and services:

- Eliminate implied trust privileges
- Support 3<sup>rd</sup> party and BYOD access
- Secure access to cloud applications

#### SECURE WEB GATEWAY

An on-premise or cloud hosted security service that filters unwanted software or malware from user-initiated Internet traffic and enforces corporate and regulatory policy compliance:

- URL and content filtering
- · Threat detection and threat prevention
- Data loss prevention
- · SIEM, SOAR and EDR integration

#### **CLOUD ACCESS SECURITY BROKER**

An on premise or cloud-based security policy enforcement point between cloud service consumers and cloud service providers to enforce enterprise security policies when applications are accessed:

- Compliance
- Visibility
- Threat protection
- Data protection

#### FIREWALL-AS-A-SERVICE

A firewall solution delivered as a cloud-based service that allows companies to simplify IT infrastructure and supply Next Generation Firewall (NGFW) capabilities:

- Web filtering
- Advanced threat protection (ATP)
- Intrusion prevention system (IPS)
- Domain Name System (DNS) security











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The success of your project is determined even before the very first site is installed – selecting the correct SD-WAN and Security vendors, hardware and connectivity options as well as the infrastructure design and solution configuration, is as critical as selecting the best-chance-of-success partner to work with.

### WE USE ONLY BEST OF BREED SERVICES TO TAILOR YOUR SOLUTION

















Consultancy

Design

**Proof of Concept** 

Hardware

Software

Connectivity

Security

Support

### BENEFITS OF WORKING WITH SDWAN SOLUTIONS GLOBAL

- ASSIST 100% online Automated Solution Scoping & Intelligent Sales Tool
- Complete suite of SD-WAN services from 9 of the world's top vendors
- SASE and Integrated security solutions from 4 top vendors
- uCPE equipment to run both SD-WAN and security on a single device
- Bespoke solution design according to YOUR exact requirements
- Full Solution design diagrams and detailed solution proposals
- Connectivity technologies connecting any place on the planet
- Full access to our technical and sales expert resources
- Services delivered in over 190 countries
- Proof of concept and Pilot services
- Research and Development laboratory testing of all solutions
- Full solution management options, incl co-management
- 24 x 7 technical support helpdesk
- Local field engineer services in 190 countries
- Orchestrator hosting and management options
- · Layer 4 additional encryption services
- Internet middle mile optimisation replaces backbone connectivity
- SDWAN REMOTE deviceless SD-WAN for home working
- SASE REMOTE deviceless SD-WAN with integrated security
- SDWAN CLOUD and public and private cloud integration
- · Rescue and recovery of failed projects
- Re-Tech Guarantee keeps your solution up-to-date

"There is not a single off-theshelf SD-WAN or SASE solution that is suitable for all customers – that is why it's important to work with a provider that aligns the correct vendor technologies to create a solution tailored to your



# CERTIFIED EXPERTS





- The UKs only SD-WAN Subject Matter Experts
- The only company in the world with 2 SD-WAN SMEs
- Over 35 vendor certifications





# COMPARISON BETWEEN MPLS AND SD-WAN

	MPLS	SD WAN
Connection	Single link (no resilience) or active link & passive back-up connection (Double the costs with 1 link remaining idle)	Multiple connectivity methods - leased line, ADSL, FTTC, 4G aggregated to create a virtual circuit.
Installation timescales	90 days +	5 minutes to a few days, ability to utilise existing on-site connections regardless of type, add and remove connectivity on demand.
Installation	Disruptive.	Hybrid overlay built on existing infrastructure with sub 5min disruption on switchover.
Telecoms provider	Single provider limited to their network presence in each location, and connection to their own Points of Presence.	Access to 1000's of providers networks worldwide ensuring yo always have the best connectivity option in each location.
Multiple provider solutions	Requires NNI connection between all providers adding latency and cost.	Makes use of any provider connections.
Deployment	Via Telco only.	Zero touch deployment of pre-configured devices is available, operational within a few minutes.
Design	Hub and Spoke.	Dynamic fully meshed network, with conduits that are automatically created on demand and then automatically closed when no longer required, reducing overhead.
Visibility	Third party monitoring.	Complete visibility down to application and user via SD WAN monitoring software for every site on the network.
Security	Closed network, vulnerable to physical link hack.	AES 256 encryption - end to end security.
Performance	Fixed route, subject to degradation.	Application performance consistently monitored & enhanced. Adjustable prioritization for application, file and bulk traffic. Intelligent traffic paths, including mid-session line disruption around line loss with zero impact to the conduit (aggregated lines). Ultimately allowing your packets to travel as Pure liquid data based on the priory of those packets.
Cloud connectivity	Via a data centre.	Direct thereby reducing latency and bandwidth required at DC or hub locations.
Business continuity	Double cost.	Inherent due to multiple bandwidth types used.
Disaster recovery	Additional facility and connectivity required.	SD-WAN devices can be moved to a new facility and begin using on-site connectivity instantly with minor configuration o a virtual instance can be loaded at a new facility.
Commercials	Costly.	Savings of 15% - 60% compared with MPLS.
Routers	Required.	Not always required.
IT staff	Required on site for most installations.	Remote zero touch installation, can be managed by a single resource, without the need for technical staff on location.
Policy changes	Require Telco to make policy changes per router, charged per router, 10-day timescale.	Policy changes can made to all sites instantly and simultaneously.
Technology	MPLS is expensive and outdated technology, no longer fit for purpose for cloud applications.	Commercially attractive, fit for purpose advanced WAN technology, flexible, scalable and resilient.
Real time applications	Predictable.	Slight variance.
Fit for Video and voice applications	Yes.	Yes.
Upgrades	Via MPLS Telco only.	Via any connectivity option, from any Telco.
Proof of concept available	No.	Yes.
Routing	Static per session.	Intelligent routing per packet.
WAN Optimisation	Additional vendor solution required.	Yes.
Security	Additional vendor solution required.	Virtual instances of leading security products from Check Poin Palo Alto, Netskope and Zscaler can be integrated with and hosted on the SD-WAN device, further reducing hardware required onsite. Most SD-WAN software includes a built-in stateful firewall.
		Stateful lifewall.