

Introduction

While software-defined wide area network (SD-WAN) and secure access service edge (SASE) solutions are rapidly becoming the go-to for enterprises looking to streamline their network infrastructure, bolster security and improve application performance, as an early SD-WAN adopter, you are in a different position. Your solution may be 3 – 5 years old and it is vitally important that your solution, when renewed, is as up to date as it can be.

With the increasing adoption of cloud services and digital transformation initiatives, organisations need to ensure that their SD-WAN and SASE solutions can still provide seamless connectivity, security and optimal performance. As organisations look to renew their SD-WAN and SASE solutions, it is essential to consider various factors that can impact network and application performance, scalability, security, and cost.

In this white paper, we aim to provide valuable insights into the important factors to consider when renewing an SD-WAN or SASE solution. We will explore the significance of 23 critical factors that organisations should consider when renewing their SD-WAN and SASE solutions.

Our goal is to help businesses make informed decisions by providing an overview of the critical factors that you should consider. We hope this white paper will help organisations choose the right solution and solution provider, that aligns with your business needs, provides maximum value and ultimately helps you achieve your strategic objectives and securing the best possible solution for you, your business and your users.

In this document we will address the following criteria to consider during renewal:

- 1. Network performance
- 2. Scalability & Flexibility
- 3. Security Integrations
- 4. Cost savings
- 5. Cloud compatibility
- 6. Application performance
- 7. Management options
- 8. Integration with new or additional infrastructure or systems
- 9. Vendor support
- 10. Connectivity technologies
- 11. Traffic shaping and prioritization
- 12. WAN optimization
- 13. Data assurance integration
- 14. High availability and redundancy
- 15. Reporting and analytics
- 16. Remote working integration
- 17. Vendor ecosystem
- 18. Licensing model
- 19. Compliance
- 20. Future proofing
- 21. Finance options



- 22. 3rd Party integrations
- 23. 24 x 7 x 365 support options

1. Network Performance

Network performance is one of the most crucial factors to consider when renewing SD-WAN and SASE solutions. Network performance refers to the ability of the network to deliver a consistent and reliable foundation underlay for all applications, irrespective of the location or device used. It is critical to ensure that the SD-WAN or SASE solution can provide high-quality network performance for all applications, including voice and video. Organisations should look to ensure the renewed solution offers the latest technologies available for intelligent traffic routing, load balancing and path selection capabilities to ensure optimal network performance. Additionally, solutions which offer network monitoring and analytics capabilities help organisations proactively identify and address performance issues before they impact end-users – again make sure that your renewed solution version is fully up-to-date and is able to use all functionality available today, as previous solution versions may not include the latest functions.

2. Scalability & Flexibility

Scalability and flexibility are other critical factors to consider when renewing SD-WAN and SASE solutions. Scalability refers to the ability of the solution to grow and adapt to the changing needs of the organisation. The renewed solution should be capable of accommodating new applications, users and locations which may or may not require significant hardware upgrades or network redesign. Flexibility, on the other hand, refers to the ability of the solution to support different deployment models, such as cloud-based, on-premise, or hybrid and integrate with different network technologies. Organisations should ensure that the renewed solution offers modular and flexible architectures that can scale up or down based on your needs and provide seamless integration with other network technologies.

3. Security Integrations

Integrations with the latest security frameworks must now be considered when renewing SD-WAN and SASE solutions. CASB, FW-as-a-Service, SWG and ZTNA may not have been widely accepted as security framework components when your original solution was implemented. The renewed SD-WAN solution should provide robust security features that can protect against a wide and everincreasing range of threats, many of which were not prevalent when the original solution was deployed. These include but are not limited to: malware, ransomware, phishing, and other cyberattacks. Organisations should consider renewed solutions that offer or integrate with advanced threat protection, such as intrusion prevention, firewall and web filtering, as well as encryption and authentication capabilities. Additionally, the solution should integrate with other security technologies, such as security information and event management (SIEM), endpoint security and cloud security, to provide a comprehensive security posture that is required right now.



4. Cost Savings

Cost savings are always a consideration when renewing SD-WAN and SASE solutions. The solution should provide the latest cost-effective network connectivity technologies that can reduce the overall cost of ownership and improve ROI. Organisations should look at renewing solutions that offer flexible pricing models, such as pay-as-you-go or subscription-based that can align with your budget and scale as your needs change. Additionally, the renewed solution should help organisations reduce the cost of network management and administration by providing centralized management, automation, and orchestration capabilities.

5. Cloud Compatibility

Cloud compatibility is another factor that must be accounted for when renewing SD-WAN and SASE solutions. With the growing adoption of cloud services, the solution should be capable of providing secure and reliable connectivity to cloud applications and services. Organisations should look at renewing solutions that include seamless integration with different cloud platforms, such as AWS, Azure, and Google Cloud and provide optimized and secure access to cloud applications. Additionally, the solution should offer cloud-native capabilities, such as cloud-based management, automation and orchestration, to simplify network administration and improve agility.

6. Application Performance

Application performance - and hence user satisfaction - is one of the most critical factors to consider when renewing SD-WAN and SASE solutions. The renewed solution should ensure optimal application performance, irrespective of the location or device used. Organisations should ensure that their renewed solution offers the latest application-aware routing and optimization, quality of service (QoS) policies, and traffic prioritisation capabilities to ensure that critical applications receive the necessary bandwidth and performance. Additionally, the renewed solution should provide visibility and control over application traffic, enabling organisations to proactively monitor and troubleshoot application performance issues.

7. Management Options

Choice of management options should be reviewed when renewing SD-WAN and SASE solutions. The solution should provide a comprehensive and intuitive management interface that enables administrators to monitor, configure and troubleshoot the network easily. Organisations should look for renewed solutions that offer centralized management and automation capabilities, allowing administrators to manage the network from a single pane of glass. Additionally, the solution should provide role-based access control, enabling administrators to assign different privileges and access levels to different users based on their roles. When looking for a renewal partner, renew with a provider that offers co-management of the solution, allowing your team full access to your solution, but with 24 x 7 support of the provider. Look for a provider who will train and upskill your team as part of their service.



8. Integration with New or Additional Infrastructure or Systems

Integration with new or additional infrastructure or systems must be considered when renewing SD-WAN and SASE solutions. The renewed solution should integrate seamlessly with different network technologies, such as routers, switches, firewalls and cloud platforms, to provide a unified and consistent network experience. Organisations should look for solutions which offer open APIs, enabling your solution to integrate with different systems and applications easily. Additionally, the solution should provide pre-built integrations with different security, cloud, and application vendors, enabling organisations to leverage your existing investments.

9. Vendor Support

Vendor support quality is often overlooked when renewing SD-WAN and SASE solutions. The solution and the provider should offer robust and timely vendor support, including 24/7 technical support, software updates, and 4 hour or NBD hardware on-site replacements. Organisations should look for renewed solutions which offer different support options, such as phone, email, and chat, and provide clear service level agreements (SLAs) that guarantee response and resolution times. Additionally, the solution should provide access to a knowledge base and community forums that can help organisations troubleshoot common issues.

10. Connectivity Technologies

Connectivity technologies are the foundation of every SD-WAN and SASE solution. The solution should support a wide range of connectivity technologies, such as broadband, 4G/LTE, dedicated Internet Access (and to a lesser extent MPLS) to provide maximum flexibility and availability. Organisations should look for solutions which offer intelligent traffic routing and active / active capabilities, enabling your solution to dynamically select and use the best available path based on traffic needs and conditions, ideally per packet. Additionally, the solution should provide support for different transport protocols, such as TCP and UDP, to optimize application performance.

11. Traffic Shaping and Prioritisation

Traffic shaping and prioritisation are essential factors to consider when renewing SD-WAN and SASE solutions. The renewed solution should provide granular control over application traffic, enabling organisations to prioritize critical applications and enforce QoS policies. Organisations should look for solutions which offer application-aware routing and optimization, traffic shaping, and packet inspection capabilities, allowing you to shape and prioritize traffic based on its type, source and destination. Additionally, the solution should provide dynamic QoS policies that can adjust to changing network conditions and traffic patterns.



12. WAN Optimisation

WAN optimisation may be another factor to consider when renewing SD-WAN and SASE solutions. The solution should be able to provide WAN optimisation capabilities, such as data deduplication, compression, and caching, to improve application performance and reduce network bandwidth utilization. Organisations should look for solutions which offer WAN optimisation capabilities for both TCP and UDP traffic, enabling you to optimize different types of applications, such as voice, video, and data. Additionally, the solution should provide real-time monitoring and reporting capabilities, allowing organisations to measure the impact of WAN on network performance and application delivery.

13. Data Assurance Integration

Data assurance integration is a new factor to consider when renewing SD-WAN and SASE solutions. With individual C-level executive now being held personally liable for data breaches, it has never been more relevant to secure your important data, including data in transit. Layer 4 crypto-segmentation is the only technology available that can do this, and will make your data worthless to any cyber-criminal due to the end-to-end encryption. It is important that you, the customer, holds the security keys to your solution for true zero trust integration.

14. High Availability and Redundancy

High availability and redundancy are essential factors to consider when renewing SD-WAN and SASE solutions. The renewed solution should be able to provide high availability and redundancy capabilities, ensuring that the network can continue to operate even in the event of hardware or software failure. Organisations should look to renew solutions that offer active-active or active-passive failover modes, enabling you to achieve maximum availability and resilience.

15. Reporting and Analytics

Reporting and analytics are other critical factors to consider when renewing SD-WAN and SASE solutions. The renewed solution should provide comprehensive reporting and analytics capabilities, enabling organisations to gain insights into network performance, security threats, and application usage. Organisations should look to renew solutions which offer real-time and historical reporting and analytics, enabling you to monitor and analyse different network metrics, such as bandwidth utilization, packet loss and latency. Additionally, the solution should provide customisable dashboards and alerts that can help organisations proactively identify and address network performance and security issues.

16. Remote Working Integration

Remote working integration is a recently added factor to consider when renewing SD-WAN and SASE solutions. The renewed solution should provide seamless and secure connectivity for remote



workers, enabling them to access corporate resources and applications from any location or device. Organisations should look for solutions which offer deviceless SD-WAN access without the need to manage VPNs, enabling you to provide secure access to different types of applications, such as webbased, client-server and cloud-based. Additionally, you should require all remote users to use multifactor authentication and other security features, such as device compliance checks and data loss prevention (DLP), to ensure that remote workers can access corporate resources securely whilst complying with security policies.

17. Vendor Ecosystem

Vendor ecosystem is a factor to consider that is often overlooked, when renewing SD-WAN and SASE solutions. The solution provider should offer a broad and diverse vendor ecosystem, enabling organisations to choose from a wide range of hardware, software and service providers. Organisations should look for solution providers who offer open and interoperable architectures, enabling you to integrate with different vendors and technologies easily. Additionally, the solution provider should provide access to a vibrant and active community of partners, customers and developers that can help organisations learn, share, and innovate.

18. Licensing Model

Licensing model is a new factor to consider when renewing SD-WAN and SASE solutions. Providers continue to evolve and may now offer alternative service consumption models to consider. The solution should still provide a flexible and transparent licensing model that aligns with the organisation's needs and usage. Organisations should look for solutions which offer different licensing options, such as perpetual, subscription, and usage-based, enabling you to choose the most cost-effective option. Additionally, the solution should provide clear and predictable licensing terms and conditions, enabling organisations to avoid unexpected costs or restrictions. Be wary of renewing solutions that require you to pay again for hardware.

19. Compliance

Compliance is becoming a more relevant factor to consider when renewing SD-WAN and SASE solutions. The solution should comply with different industry and regulatory requirements, such as HIPAA, GDPR and PCI DSS, to ensure that the organisation's data and operations are secure and compliant. Organisations should seek solution vendors who provide compliance certifications and reports, enabling you to demonstrate your compliance posture to auditors and regulators. Additionally, the solution should provide built-in security features and controls, such as encryption, access controls and audit trails, that help organisations meet their compliance requirements.

20. Future proofing

Futureproofing is a must-consider factor when renewing SD-WAN and SASE solutions. Change and adoption of new technologies is accelerating, therefore, the solution should provide a scalable and



adaptable architecture that will accommodate future growth, changes and innovation. Organisations should look for renewed solutions that offer modularity, flexibility and extensibility, enabling you to add new capabilities, features and services easily. Additionally, the solution should provide support for emerging technologies, such as 5G, IoT and edge computing, that help organisations future-proof your network infrastructure.

21. Finance Options

Finance options are an essential factor to consider when renewing SD-WAN and SASE solutions. The renewed solution should provide flexible and affordable finance options that align with your organisation's budget and financial goals. Organisations should look for solutions which offer different finance options, such as leasing, financing and pay-as-you-go, enabling you to choose the most cost-effective option. Additionally, the solution should provide predictable and transparent pricing and billing, enabling organisations to avoid unexpected costs or charges.

22. 3rd Party Integrations

Current and future 3rd party integrations must be considered when renewing SD-WAN and SASE solutions. The solution should integrate seamlessly with different 3rd party technologies, such as cloud providers, security vendors and application vendors, to provide a comprehensive and cohesive network infrastructure. Organisations should look for solutions which offer pre-built integrations, APIs and SDKs, enabling you to integrate with different 3rd party systems and applications easily. Additionally, the solution should provide a vibrant and active partner ecosystem, enabling organisations to leverage the expertise and innovation of different partners and developers. Solutions that use a single device for SD-WAN, security and 3rd party integrations will become the norm in the future, so look for providers that already offer this.

23. 24 x 7 x 365 Support Options

 $24 \times 7 \times 365$ support options are paramount to consider when renewing SD-WAN and SASE solutions. The solution provider should provide round-the-clock technical support, ensuring that organisations can get help and assistance whenever they need it. Organisations should look for solutions which offer different support options, such as phone, email, chat, and self-service portals, enabling you to choose the most convenient and efficient option. Additionally, the solution should provide global support coverage, enabling organisations to get support from different time zones and regions. Your solution runs 24×7 so your provider's support must too!

Conclusion

Renewing a solution is the perfect time to reset the clock and eliminate problems that you may have experienced during the initial solution term. Renewing SD-WAN and SASE solutions is a critical decision for organisations looking to improve their network infrastructure, enhance security, and optimize application performance. By considering the 23 critical factors outlined in this white paper,



you will help ensure that you select the right solution; one that aligns with your business needs and provides maximum value. With the right SD-WAN and SASE solution, you can achieve network simplicity, security, agility and performance, enabling you to stay competitive in today's digital age.

Opinion

"The first thing you may want to know is what's in it for me? That's easy — with SDWAN and SASE Solutions, you get a fit-for-purpose, future-proof solution renewal provided to you at the best possible cost, with a quick turn-around and without you having to do very much at all — it's all done for you by a team that knows what they are doing. POCs shouldn't take months, quotes shouldn't take weeks — You should not have to accept below par or reactive service, delayed implementation and poor solution and account management"

Anthony Senter, CEO of SDWAN and SAE Solutions and double accredited SD-WAN Subject Matter Expert

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TO HELP YOU COMPARE YOUR EXISTING SOLUTION PROVIDER WITH WHAT'S POSSIBLE WHEN YOU RENEW YOUR SOLUTION WITH SDWAN AND SASE SOLUTIONS, WE HAVE INCLUDED A PROVIDER COMPARISON CHECKLIST

PROVIDER COMPARISON

#	Supplier Competency	SDWAN SOLUTIONS	Your Provider	Why it's important to you
1	Certified SD-WAN Subject Matter Experts (We're DOUBLE accredited)	2		The provider should have the experience, knowledge, official certifications and the respect in the industry behind them to be properly considered subject matter experts
2	SD-WAN vendor certifications	35+		The provider must fully understand their own services and solutions as well as other vendor solutions to be able to propose the best possible solution to you
3	Solutions designed to suit customer requirements	YES		There is not a single off the shelf solution that is suitable for everyone - your requirements are unique to your business and your network solution needs to satisfy these requirements
4	Only offers True SD- WAN technologies and solutions from certified and tested vendors	YES		Some vendor solutions are SD-WAN in name only and do not offer the functionality that true SD-WAN delivers
5	Proven SD-WAN vendor technologies	9		The provider aligns your business requirements to the most suited SD-WAN vendor technology, not to the only one on offer
6	World leading Security vendor technologies	4		Your business needs to be protected by the best security available, and your provider should have the ability to change security provider without changing SD-WAN vendor or replacing hardware
7	Connectivity providers	1953		Network provider choice ensures every site has the best available connectivity installed to maximise resilience, redundancy and performance and is not dependant on a single provider
8	Universal CPE hardware with VNF capability	YES		Universal CPE ensures that SD-WAN and security software are not tied to the hardware, allowing you change elements without replacing the hardware. Running multiple applications on a single device reduces cost and management
9	24 x 7 x 365 support	YES		The provider and their support experts should be available to you 24 x 7 x 365
10	Number of Access technologies available	6		The provider ensures all of your sites have access to all available connectivity options at all times, without limitation
11	UK, EU and APAC Headquarters	YES		The provider is able to support business requirements locally and globally without restriction
12	Countries where local field engineers are available	190		You have access to your provider's field engineer services across the globe, in your local language
13	Number of countries where solutions can be deployed, managed and supported	190		Solutions should not be limited to specific countries or regions, now and in the future. Ensures a single global solution and increased performance, reduced cost and centralised management
14	Mix and Match solution components	YES		Best in class technology vendors make up your solution - You are not forced to settle for a single vendor suite of products when you only want one element
15	Number of installation options available to customers	3		Installation options should be available to suit your requirements or preferences
16	Number of management options available	3		Management options should be available to suit your requirements or preferences

#	Supplier Competency	SDWAN SOLUTIONS	Your Provider	Why it's important to you
17	Short term connectivity contracts available	YES		Ensures no contractual tie in for technologies that may become out-dated during your contract
18	SASE Options	YES		The provider offers integrated security options, either on the physical edge device or supplied via Cloud as part of a tailored solution design, deployment and management
19	Access to SDWAN Cloud, in 50 locations globally	YES		Allows seamless access to every IaaS, SaaS, private Cloud and public Cloud instance as well as connection to nearly 700 global DC locations on a PAYU, as part of your SD-WAN solution. Also enables you to operate separate SD-WAN vendor solutions in a single network, particularly relevant during acquisitions and mergers.
20	Simple Multi-Cloud Access	YES		Access to multiple Cloud instances for resilience and redundancy as standard with your SD-WAN solution.
21	Online solution design option	YES		Convenient, tailored multi-vendor solution design, at your own time and pace, without having to physically meet with dozens of suppliers, could save you months of investigation
22	Enhanced layer 4 encryption is available as an option	YES		The option of including enhanced layer 4 encryption so that your traffic remains completely invisible even to the SD-WAN provider - suitable for MOD, Govt and financial organisations
23	Solution Re-Tech guarantee	YES		Keeps your solution as technically optimised as possible, through-out the contract, replacing technologies as and when new options become available.
24	Seamless multi-vendor solution integration	YES		The provider can support different SD-WAN vendor solutions and allows seamless communication between them when mergers and acquisitions result in different provider networks
25	Complete suite of SD- WAN and SaSe services	YES		The provider offers every possible SD-WAN related professional service including consultancy, to design, POC, implementation, management, expansion, consolidation, RFP process and many more
26	100% focus on SD- WAN and SaSe	YES		The provider offers focused attention and expertise on SD-WAN and SaSe technology - not a jack of all trades
27	Multi-Award winning company	YES		The provider has earned Industry and peer recognition for SD-WAN and SASE products and services
28	Engineer-As-A-Service	YES		The provider has the ability to supply engineering resource where you do not have IT teams, in 190 countries world-wide
29	Deployment-As-a- Service	YES		The provider has the ability to deploy services and solutions for you, where you do not have IT teams, in 190 countries world-wide
30	Proof of Concept trials	YES		The provider is able to demonstrate the solutions and technologies within your live environment, thereby proving real-time capabilities and benefits
31	Research and Development laboratory	YES		The provider has the ability to test the proposed solution, in a live simulation environment, before POC or deployment
32	SD-WAN vendor training for customers	YES		As part of your solution, the provider ensures that you become confident and certified in the vendor technology, important for co-managed and self-managed solutions
33	Solution Co- management option	YES		The provider allows you to make changes to your network, once certified, as and when you need to, knowing that the provider is available 24 x 7 to make these changes for you also.
34	Orchestrator-As-A-	YES		The provider is able to host and manage the solution

#	Supplier Competency	SDWAN SOLUTIONS	Your Provider	Why it's important to you
	Service			orchestrator as part of your solution
35	SD-WAN functionality testing process	YES		The provider ensures and confirms that the SD-WAN technology is suitable and will provide the expected benefits accordingly, with no surprises
36	Application enhancement	YES		The provider designs the solution around application requirements and performance to boost business productivity
37	Is able to utilise satellite as a connectivity option	YES		The provider is able to use satellite connectivity successfully in conjunction with lower latency connections,
38	Solutions scalable to thousands of edge devices	YES		No limitation on the number of edge devices that can be installed as part of a larger deployment
39	Physical and virtual appliances are available	YES		The solution is able to run on physical and virtual appliances, or a mixture of both
40	Solution provides per packet traffic steering	YES		The provider solution reacts sub second to changes in conditions and applications are NOT pinned to links requiring them to failover to secondary links
41	Project management	YES		The provider has experienced PM services available for your solution deployment
42	PAYU access to over 900 global DC locations	YES		The provider solution enables you to connect to global DC locations and only pay for the bandwidth you use, as part of your SD-WAN solution. No need to maintain point to point links globally
43	4G private APN network option	YES		The provider solution separates your traffic from consumer LTE networks in congested areas
44	OPEX or As-A-Service pricing model	YES		The provider offers zero installation fees with a set monthly payment option
45	Full account management with quarterly reviews	YES		Your account is fully managed with a single point of contact, by the provider
46	Clear escalation path	YES		Complete escalation path for 24 x 7 support right through to CTO and CEO level
47	Free of charge Proof of Concept	YES		The provider does not charge a fee or cost for the POC
48	Sub-second failover after link failure	YES		The provider ensures that your solution reacts sub- second to link failure or link brownout, preventing dropped calls etc
49	Independent solution advice, always	YES		You receive the best solution for your requirements, and not the only solution that your provider can supply
50	SD-WAN and / or Security components can be replaced without replacing the hardware	YES		Change SD-WAN or security without replacing the hardware as is the case with a single provider SaSe
51	All available bandwidth is used within a solution	YES		The provider solution makes use of all installed connectivity ensuring that secondary lines are used and not sitting idle, waiting for a main link failure.
52	LTE can be used as a main connection technology	YES		Some providers only permit the use of LTE services as a link of last resort or as a dedicated back-up solution, thereby limiting your connectivity choices
53	Seamless integration with 3rd party software and services, often on	YES		The provider should be able to enhance your solution and security with seamless, non-disruptive integration with 3rd party services without needing to replace hardware

#	Supplier Competency	SDWAN SOLUTIONS	Your Provider	Why it's important to you
	a single device			or add additional hardware.
54	Optional Data Assurance	YES		The provider should be able to Include Layer 4 encryption to secure your data, even during transit, making your sensitive data worthless to any cyber-criminal
55	IOT device enhanced integration	YES		The provider can ensure that your IOT devices are intelligently connected and protected, and integrated into your network and security environment, regardless of where they are located