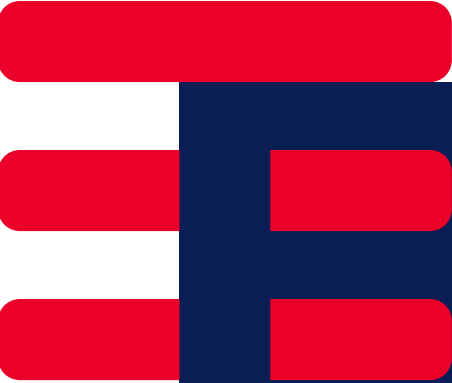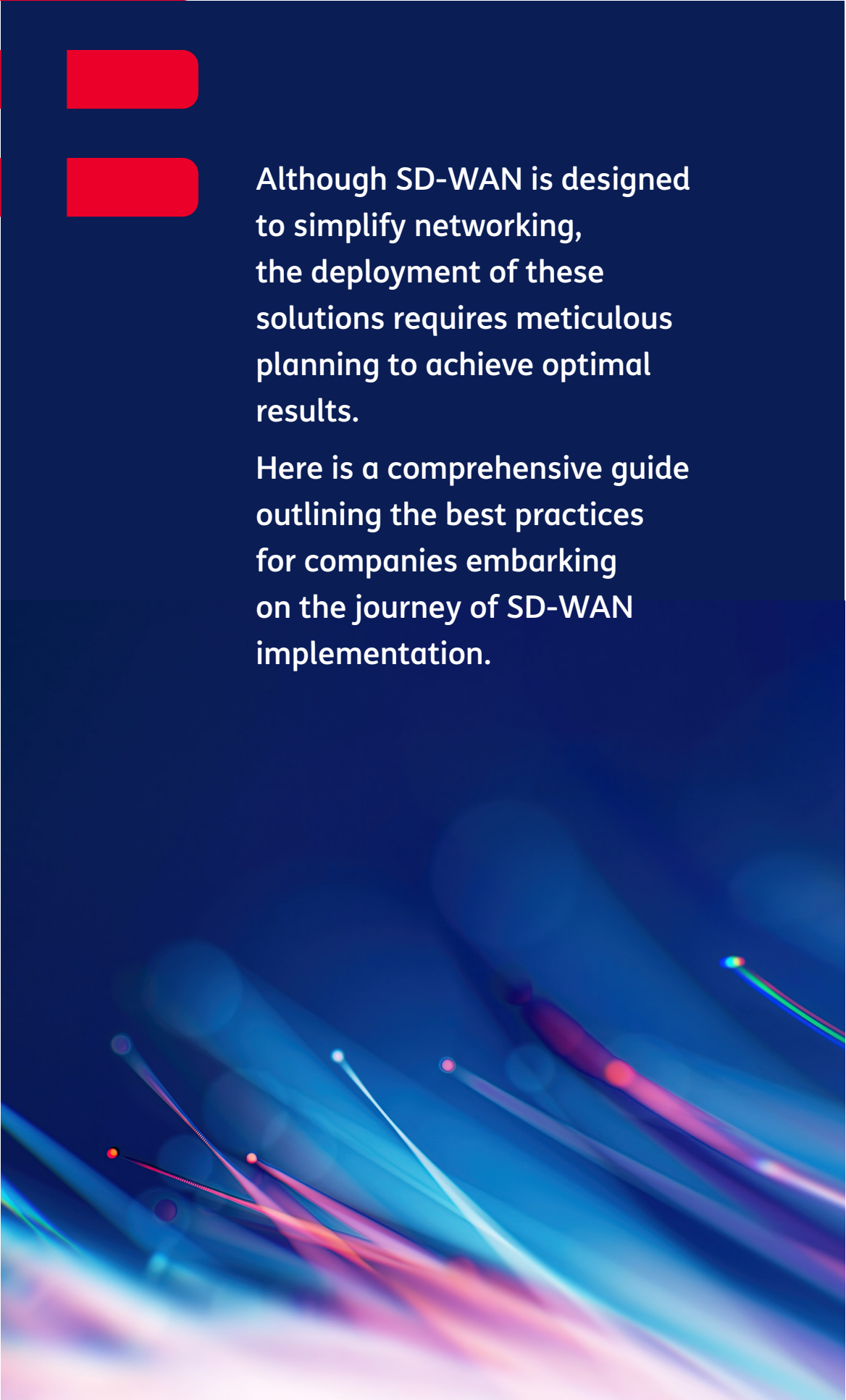# 5

Best Practices to Follow When Deploying SD-WAN

Although SD-WAN is designed to simplify networking, the deployment of these solutions requires meticulous planning to achieve optimal results.

Here is a comprehensive guide outlining the best practices for companies embarking on the journey of SD-WAN implementation.

1 DEFINE YOUR NEEDS

Before starting SD-WAN deployment, it is essential that the company assigns a dedicated project team tasked with defining its needs and identifying the benefits of this innovation. To choose the most suitable solution and guarantee successful implementation, the project team must ask the right questions.

Firstly, what are the objectives of the transformation?

Is the aim to enhance performance, security, and scalability ?	To reduce costs?	To overcome an existing architecture challenge?	To streamline internal processes, resulting in significant business impact?

It is also necessary to assess whether the current network topology relies on MPLS or Internet connections to ascertain any new requirements around access technology, bandwidth, and the «Go to Cloud» strategy.

To comprehensively analyze all these aspects, the project team should not just be formed by technical experts (e.g., network, IT, and security professionals), but also by marketing, sales, and HR managers, who must be included and involved in the conversation.

This is because the new SD-WAN infrastructure could have an impact on production, business, and employee processes and procedures that must be evaluated in advance.

2 CONSIDER YOUR OPTIONS

Following the initial phase, the project team must explore available technologies on the market. These options should be evaluated against the objectives identified in the previous phase, and potentially field-tested with a proof of concept.

Recognizing that there is no «one-size-fits-all» solution, the optimal choice should be capable of adapting the best mix of functionalities to specific use cases.

A good SD-WAN solution must be able to provide a wide range of functionalities, including support for different connection types, advanced security features, and centralized management capabilities, as well as traffic optimization tools and performance monitoring dashboards.

According to current best practices, the SD-WAN solution must also provide a high level of security to protect the network from threats.

It is important to verify the solution's security features and their compliance with security standards. It should also be easy to administer through a simple management console and ensure ease of use through automation tools.

Finally, the cost of the SD-WAN solution should align with its objectives.

> **There is no «one-size-fits-all» solution, the optimal choice should be capable of adapting the best mix of functionalities to specific use cases.**

3 ENSURE A SMOOTH DEPLOYMENT PLAN

Once the solution has been selected, it is time to plan its deployment. This includes setting a schedule and providing the necessary human and financial resources.

A successful implementation phase must ensure business continuity and a smooth transition to the new SD-WAN paradigm through an accurate high and low-level solution design and a feasible GANTT diagram for the implementation plan.

The best way forward is therefore to evaluate the new SD-WAN architecture at selected company sites – preferably branch offices – and test performance, security, and reliability aspects before scaling the solution to data centers, headquarters, and the global production network.

4 KEEP YOURSELF SAFE

SASE (Secure Access Service Edge) is a cloud-native security architecture that integrates connectivity, security, and management services into a unified access point. This technology is becoming more closely linked with SD-WAN, particularly where the access technology relies on the Internet.

Indeed, the interoperability between SASE and SD-WAN enables companies to leverage the advantages of both technologies. While SD-WAN delivers flexible and efficient connectivity, SASE, being cloud-based, provides robust security and enhanced visibility over applications and data. This ensures the appropriate level of coverage and geographic distribution across SASE PoPs worldwide.

5 MANAGE EVOLUTION AND THREATS

To get the most out of your SD-WAN infrastructure post-installation, you will need to ensure that the team managing the solution has in-depth knowledge of both the technology and the vendor's management platforms.

Consequently, obtaining technology certification is necessary. But there is more: networks, applications and threats are becoming increasingly complex, requiring continuous updates to knowledge and skills. At the same time, the domains of business solutions are becoming broader and borderless.

In some cases, it may be beneficial for companies to adopt a co-management approach, letting experts take care of network management, performance, and security issues, so they can focus on their core business activities.

Take the journey with an expert!

Following these five best practices can help your organization better prepare for the SD-WAN transformation, but taking the journey with an expert ensures efficiency and success.

Sparkle is among the top global operators, making it the ideal partner to support organizations during this landmark transition, as evidenced by the hundreds of clients they serve worldwide. As the SD-WAN concept has been developed by vendors with different approaches and architectures to suit different types of businesses and their needs, Sparkle has adopted an **agnostic approach**, building a managed SD-WAN offering that includes many complementary technologies. Its experts can manage SD-WAN architectures from the simplest to the most complex, providing value-added services from design to implementation, operations, and service management.

Furthermore, Sparkle's managed SD-WAN solutions are MEF 3.0 certified, guaranteeing that the implemented architecture and its management align fully with best practices standards. This certification is crucial, especially considering the extensive array of offerings available on the market. Customers can confidently understand what they are buying, knowing that the solution has undergone rigorous testing before deployment.

Thanks to Sparkle **live demo room**, companies can also experience the target SD-WAN solution in a real environment. This allows them to appreciate the benefits of the technology while assessing potential impacts of the transition from the traditional MPLS paradigm to Software Defined (SD) models. By operating its **own global network**, Sparkle is also able to integrate the SD-WAN solution with underlay connectivity – MPLS, Tier-1 or DIA/BIA Internet – and dedicated private connections to Cloud providers.

On top of SD-WAN, Sparkle **SASE Connect** enables secure Internet access for remote workers, IoT devices, branch offices, and applications. The security components of Sparkle SASE Connect flexibly bring together **multiple layers of protection** and provide a unified front-end against cyber threats, allowing organizations to customize security granularity to better align with their specific requirements.

Interview with an expert

**Antonella Sanguineti,
Marketing & Product Management
Networking, Cloud,
Security & Identity Solutions
Director at Sparkle**

What are the specific features of Sparkle's SD-WAN solutions?

We collaborate with the best vendors, so we have experience with different technologies across a wide range of use cases. This means we can offer our customers the SD-WAN technology that best suits their needs.

In addition, as Sparkle is a leading global connectivity provider, we can design turnkey solutions for our customers, combining the 'overlay' component – i.e., SD-WAN and SASE – with the 'underlay' infrastructure part – the pure network component – optimizing the overall Total Cost of Ownership (TCO). Moreover, as far as network management is concerned, we can adjust the level of customer engagement and control, from full management to co-management and co-monitoring.

Finally, we provide MEF-certified solutions that are extensively tested in our labs before production and can be experienced by customers with our demo tools at any time.

How do these SD-WAN solutions interoperate with SASE solutions?

The topic of SASE is paramount because it concerns the

security aspect, which is important for all the companies we work with. We can provide integrated SD-WAN and SASE solutions, and, with our Security Operations Centre (SOC) and Network Operations Centre (NOC) teams, we support and assist our customers at every stage, from design to operations, even – and especially – those who have no prior knowledge of these solutions.

What are the next steps?

We are continuously expanding the scope of our SD-WAN solutions, adding more technologies to our portfolio, and expanding the geographies where we can provide optimized solutions with our own assets. In addition, the easiest step will be the adoption of artificial intelligence to the SD-WAN orchestrator. This will change the network management model from reactive to proactive and from predictive to prescriptive, with benefits for our customers in terms of efficiency, resource optimization and responsiveness.