

SD-WAN Making Sense Guide:

Part 3: The route to success

This three-part guide is intended as a companion for IT professionals on a journey through SD-WAN.

Part 1: Building a use case

Part 2: Not all SD-WANs are born equal

Part 3: The route to success

More than 40 vendors currently offer SD-WAN products or services. You may want to consider the following when drawing up a list of potential contenders for your own SD-WAN deployment.

SUPPORTED FEATURES – Beware of being dazzled by long lists of features, some of which claim to break the laws of physics and do things that no other vendor can do. Trendy or innovative they may be, but they may not work in your environment and may bring very little benefit to you, if any.

Start with understanding what you need to support your network vision and mission. This insight may well indicate a 'less is more' approach to specification, trading features you will never use for a smaller core of stable ones that will generate benefit.

PARTNER ECOSYSTEM – Consider carefully the partners that vendors propose to use. Be wary of being locked by default into a deal that cannot be amended if a vendor's partner fails to perform or is unable to support you if the geographical spread of your network estate changes.

ROADMAP – SD-WAN is an evolving technology. Today it predominately addresses Layer 3 issues; controlling traffic and allowing manipulation of routing. User Experience (or defined) Wide Area Networks (UX(D)-WAN) looks set to move up the stack into Layer 8 and 9.

Application Aware Networking promises to retain information about the performance of applications that connect to it. Networks will then dynamically optimise their functioning of all applications and systems that they control and hold information about the state of the applications and the resources required.

Understanding where a vendor's roadmap is pointing will be key to protecting your investment and ensuring alignment with the direction your own enterprise has plotted.

SECURITY AND RISK – SD-WAN is useless as an enterprise architecture if it cannot be made secure. Less than 20% of the current vendors in the marketplace have a well-documented history with security. Many of the rest are worryingly weak in this key area, some relying on third parties for security strategies that appear barely thought through. This may increase management costs and add further to risk.

THE FINAL FORK IN THE ROAD

Which delivery method do you decide to adopt? DIY or managed service? Just because SD-WAN makes it easy to enact a series of routing changes doesn't mean that the thinking behind each change is necessarily easy. But it's fair to say demystifying and simplifying this are embedded in the design principles of SD-WAN.

Consider whether you have people sitting around with the spare time and the expertise needed to pick up the management burden. Artificial Intelligence will undoubtedly play a growing future role in software defined networking, but for now most SD-WAN deployments are managed by humans able to apply the high level of WAN expertise required to extract the full ROI.

A constant challenge for many in-house IT teams is not to spread themselves too thinly. There is nothing in the rule book that says because you could manage an SD-WAN yourselves that you should do so. Aligning resources for the optimum result may well mean DIY, but it might also indicate an entirely managed service or autopilot with the option of a capable in-house team stepping in to co-manage largely extreme time sensitive scenarios.

THE APPLICATIONS LAYER

The latency and jitter sensitivity of your intended enterprise applications will be well documented, and provide a starting point for your KPI and SLA red lines. Remember, voice is an application too.

Implementation is key, and a partner that is passionate about delivering the right solution will be a willing participant in the negotiation.

THE ACCESS LAYER

If the SD-WAN is going to simply overlay the infrastructure provided by an existing WAN provider then you may not even need to inform them of your intentions. But if the SD-WAN deployment is going to include architectural changes, such as ripping out routers, then existing SLAs, response times, fix times and the levels of overall service your connectivity carrier provides may be affected.

SD-WAN will evolve over the coming years and to maximise the return on investment your SD-WAN partner should have a wide experience of connectivity and security, also Local Area Services as software defined services will push further and further into this LAN environment.

THE DEVICES LAYER

SD-WAN does not remove the need for customer premises equipment to be sourced, delivered and fixed if it goes wrong. Make sure you understand and define with suitable SLAs which party or parties are responsible across the whole solution.

THE SERVICES LAYER

It is easy to focus on the 'What' here. What services will the partner offer you in relation to your requirements? Of course partner-managed routes means the solution SLA needs to be detailed and robust, defining what "managed" really means.

Most RFPs will not, however, require an examination of the 'How' and rarely look at whether partner values align with the values of the customer enterprise. In a technology area that is still very much under development like SD-WAN, a disruptive technology where risk and uncertainty are high, seeking that alignment is even more desirable. Partners with complimentary values will be able to deploy peer expertise at all levels, amplifying the business case to stakeholders across your enterprise and working collaboratively to check and cement buy-in at all stages of the process.

Test individual experience levels. Today, the early lifecycle of SD-WAN may mean you need to look for evidence in prior work with other technologies and markets.

PARTNER SLA CONSIDERATIONS

Clearly this starts with KPIs and the complete end-to-end SLAs, and it's a measure of the state of the SD-WAN marketplace that what's on offer from vendors varies widely. At Gamma we advise you to determine what your enterprise needs to function at its best, and then stick to your demands.

It is highly likely that this insistence on end-to-end service guarantees will cause some vendors to back away. Those that remain in the running should be challenged on every point but will have clearly garnered your trust at this point.

RECOMMENDED STEPS

Review your current WAN service. Does it fit your organisation's needs?

Review your current WAN design, how your current applications utilise it and how new applications may impact on this. Ensuring that you have the least hops to where applications and data are hosted will mean a much more efficient network.

Review your security infrastructure. Think about how an SD-WAN solution will integrate with your current security solutions, and possibly reduce complexity, management overheads and potential for a security breach. Consider what new security measures should be introduced as part of an SD-WAN deployment.

Consider the cloud. If your applications and data will be spread across multiple cloud services then you should ensure that not only is your connectivity designed to provide the most efficient use of the network, but that the selected SD-WAN vendor will support all the functionality you need.

Engage with partners early to understand their SD-WAN capabilities so when current contracts are expiring you have a clear understanding of what your own SD-WAN roadmap looks like.

Investigate vendors early and monitor their progress. Expect the market to mature and consolidate.

Review your current WAN contracts. Understand what implications there might be if you decide to deploy SD-WAN as an overlay technology before your WAN contracts have expired.

Gamma as a specialist voice, data, mobility and security managed service provider and has built partnerships with hand selected SD-WAN and security vendors here to ensure we are well placed to meet our customer's needs. The selection of our chosen partners was a result of extensive research and market pressure testing. We also validated this with external analysts, so we are confident we have the best all round solutions and engagement model to guide you through any purchase and delivery here.

With customer service at the heart of everything we do, we can provide DIY, fully managed or joint managed SD-WAN and security solutions.

FURTHER READING

Need more detail? The following Gamma resources may be of further interest:

BUILDING YOUR **UCAAS** **STRATEGY** ON THE **RIGHT FOUNDATIONS**

Many businesses haven't pressure tested their foundations to ensure they can meet the new requirements for rich communication and collaboration services

<https://lp.gamma.co.uk/webinar-building-your-UCaaS-foundations>

AGILE **FOUNDATIONS**

Highlights from Gamma's annual customer experience event:

<https://www.gamma.co.uk/gx-summit-2019/>