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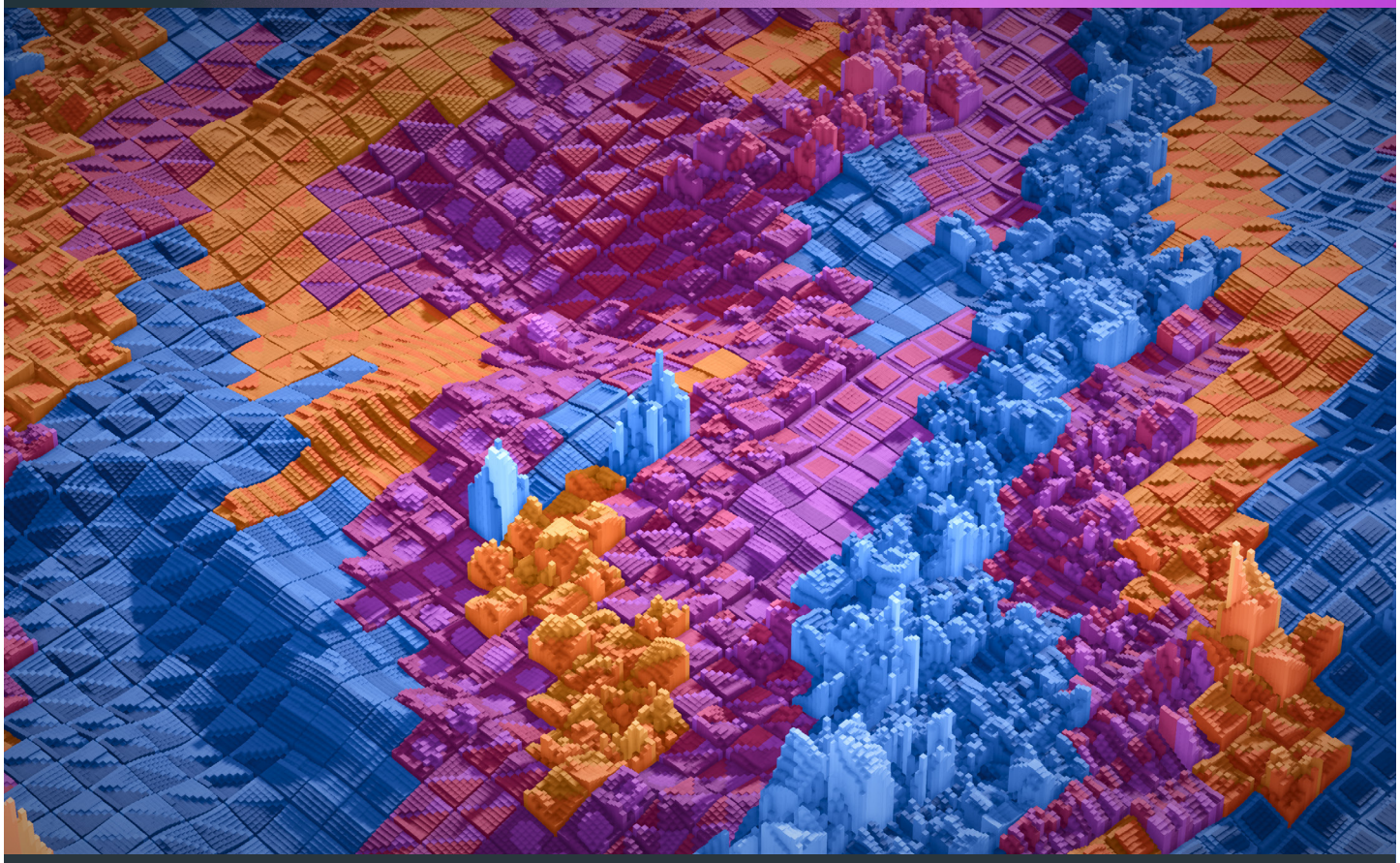
# Six steps to SASE success

## Lessons from a 700-Site SD-WAN Rollout

WHITE PAPER



Solid solutions for a dynamic world

More and more organisations are moving towards a Software-Defined Wide Area Network (SD-WAN) instead of the traditional network where each node has to be configured and managed independently – often as part of a Secure Access Service Edge (SASE) architecture. But in reality, this transition is often more complex than vendor promises suggest.

At Maintel, we've guided businesses across various sectors through this exact process. Drawing from our experience, this paper offers practical insights to help teams navigate the move to SD-WAN successfully. From initial planning to ongoing optimisation, these strategies can help de-risk and accelerate the shift to SASE.

## Introduction

Across every sector, the case for moving to SD-WAN is becoming increasingly persuasive, especially when accompanied by Security Service Edge (SSE) solutions to create a SASE architecture. This approach delivers benefits across the organisation, from seamless user experiences - no matter where employees work - to stronger security, better performance, and more efficient network operations.

Whereas traditional network architectures were built with a perimeter in mind, making them costly to scale and inefficient at dealing with the vast quantities of internet traffic, SD-WAN and SSE better reflects the reality of the digital-first organisations of today.

Features like application-aware routing and dynamic path selection transform performance: critical apps get the bandwidth they need, and all traffic is intelligently routed across multiple, resillient traffic paths based on network considerations and app requirements.

Security permissions can be defined at a granular level, with access managed by role, and adapted to different devices or connections. At the same time, management is centralised and streamlined - faults are easier to resolve, and provisioning new users or devices is significantly faster.

By adopting SD-WAN with SSE, complex networks become easier to manage, everyday tasks cost less to complete, and the overall security picture is more transparent and better controlled.

There's also a further attraction of SD-WAN and SSE for many organisations: implementation is supposed to be straightforward. Because much of the work can be done centrally – defining and implementing policies at the software level – it theoretically offers a swift and low-intervention approach, with minimal input or configuration needed at different sites. Understandably, this is a message vendors are swift to reinforce.

## Reality bites: the implementation challenge

Yet, while the benefits of SD-WAN are compelling in theory, the reality tends to prove more challenging. Practical issues often emerge during the implementation. Organisations we have worked with frequently discover they have gaps in policies or user profiles which need to be resolved before they can put in place access permissions. Another common theme is that as implementation begins, it transpires that the organisation's actual infrastructure differs from the documented version, on which the project was planned.

Perhaps the biggest challenge, however, is the cultural divide between the networking team, driving the shift to SD-WAN, and the Security Operations (SecOps) team, whose risk-averse approach can create friction. While vendors often suggest that collaboration will resolve these differences, they tend to underestimate how fundamentally these teams' perspectives can differ in practice.

While these challenges are manageable, they often lead to unexpected delays and added costs. The straightforward implementation that all parties were expecting becomes altogether knottier.

That's why the Maintel team created this paper - sharing six key insights from our experience deploying SD-WAN and SSE. These practical lessons can help organisations anticipate obstacles, streamline the transition, and ensure a smoother, more efficient rollout.

### 1. Involve all key stakeholders early

Moving to SD-WAN and SSE isn't just a technical shift: it's a cultural and even philosophical one. It places more control in the hands of the networking team and can appear to diminish the roles and responsibilities of others. It also means that, while the focus for improved performance is at the network edge, the management is increasingly centralised.

Given the scale of this change, our view is that as soon as an organisation – or networking team – is contemplating SD-WAN, it's time to start the conversation with relevant colleagues and stakeholders. These will differ, depending on the organisation and its structure, but could include branch office teams, customer service functions, field IT engineers and more.

In nearly every SASE project, engaging SecOps is crucial. Security teams are often focused on minimising risks, which typically leads to the implementation of multiple layers of best-in-class solutions for every potential threat. However, the SD-WAN with SSE model, which relies on the internet as its transport layer, contrasts with this traditional approach. It opens the business to new risks that conventional firewalls can't fully mitigate. Instead, security becomes multi-layered within cloud services, representing both a cultural and technical shift.

SecOps' concerns about the transition are not only valid but should be raised early in the process. Networking teams and ICT decision-makers need to fully understand these concerns so they can be addressed as part of transition planning.

A useful approach is to differentiate between managing known risks in the SD-WAN environment and identifying new risks specific to SD-WAN/SSE. This distinction helps focus attention on where SecOps' primary concerns lie and identifies which ones represent real barriers to adopting SD-WAN.

Early engagement with SecOps and other stakeholders allows collaborative scoping of the transition project and agreement on what success looks like. It also provides the foundation to set up the right governance structures for the project and identifying the right personnel for project teams.

## 2. Check your tech starting point

A common cause of unexpected delays in SD-WAN transition – and indeed, many other major ICT projects – is that there is gap between the documented version of the organisation's network or infrastructure and the reality.

Often, documentation is created once and then left unchanged, meaning subsequent moves, updates, or additions aren't reflected. New infrastructure might be purchased or installed locally without informing the central team, and undiagnosed issues - like network pinch points caused by increased user numbers at specific locations - may go unresolved.

The move to SD-WAN is a key opportunity to revisit this. Understanding the true extent of the infrastructure and its usage is essential to ensuring that the new network meets all user needs and in particular what is needed at the network edge.

That's why we always advise taking the time to fully assess the starting point before diving into the planning of an SD-WAN implementation.

The technical starting point for SD-WAN goes beyond just reviewing network hardware. It's also important to examine supplier contracts—considering factors like contract duration and any potential impacts from changes, such as penalty clauses. Often, this process uncovers underutilised features or components that organisations are still paying for, presenting an opportunity to integrate them into the new SD-WAN design.

This was exactly what happened when we worked with a housing association who had a Cisco Umbrella contract in place but was underusing the SSE capacity. Having examined this, we recommended upgrading it to draw on new features that would seamlessly integrate with the new SD-WAN to achieve their SASE aims.

The outcome? A significant opportunity to enhance the organisation's security posture - using technology they already owned.

Clearly, it is possible to review your tech starting point in-house. This is information that should be readily available and there are clear benefits from tasking your team to scrutinise the infrastructure and contracts to this degree. However, many clients have found it useful to have a third party like a managed service provider assist with this – bringing the experience of multiple deployments to identify potential pitfalls and focus on the future evolution.

### Cyber Maturity Assessment

One of Maintel's most popular advisory services is a Cyber Maturity Assessment, where our independent experts review your people, processes, policies and tech against your stated needs and cyber risk appetite.

As part of this assessment, we thoroughly review your current security posture and controls. Using industry standards, our team provides scores, actionable recommendations, and measurable outcomes for improvement. This can include identifying redundant tools and capabilities, with suggestions for potential removals to reduce overall cybersecurity costs.

This assessment can be extremely timely before starting an SD-WAN project.

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## 3. Understand the user requirements and physical environment

Part of the promise of SD-WAN and SSE is that it allows you to differentiate service delivery and security at a granular level: setting specific policies for groups of users and/or locations.

However, to fully leverage this capability, it's essential to understand the unique needs of users and the environments in which they operate. While a series of stores, offices, or residential buildings may seem similar in size and function, the actual conditions and occupancy can vary greatly. Building layouts differ, as do the materials used, which can affect connectivity. A one-size-fits-all approach - where every site receives the same level of connectivity - won't deliver the optimal user experience you're aiming for.

The new network provides an excellent opportunity to resolve existing performance issues. From our experience deploying multi-site solutions, gathering as much local information as possible is crucial.

For instance, detailed floorplans can inform decisions around cabling and the optimal placement of Wi-Fi access points to eliminate known black spots. In some cases, conducting site surveys may be worthwhile. Although they come with upfront costs, these surveys can identify the root causes of user challenges, ensuring the new network delivers tangible improvements and isn't undermined by poor performing wired and/or wireless local networks.

Other important considerations include the types of applications users are accessing. Tools like real-time stock management and payment systems have distinct access requirements compared to general internet usage. Additionally, businesses have varying security needs, particularly when it comes to handling sensitive data. For example, housing associations often manage large amounts of personal data about residents, including information related to health and wellbeing, which must be tightly controlled and protected. During the design phase, the focus should be on ensuring the infrastructure is robust enough to support these requirements and comply with standards like GDPR.

There may be multiple sources of this kind of information, from estates or facilities teams to branch heads and lines of business. Open questions at an early stage are likely to gain the insight you need with less acrimony.

## 4. Design with an open mind

With these foundations in place, it is now time to move towards the design of the SASE architecture. Our core recommendation, drawing on experience, is to start with a relatively generic design and assume there will be several iterations.

This approach allows sufficient time for all relevant teams to review the design and ensure it meets their requirements. It also provides room for suppliers to address any new discoveries or unexpected issues that arise.

We have found that regular design workshops with a wide range of stakeholders offer the most effective route to refining the design and ensuring all requirements are addressed. It is essential that these involve likely users beyond IT, such as customer service teams, frontline retail workers, etc.

Many of these users may have concerns about change. In such cases, proof-of-concept solutions - especially for processes that may alter how users work - can be incredibly valuable in building confidence. These solutions not only showcase the benefits of the planned changes but also provide a platform for user feedback, helping to optimise the experience in line with their preferred ways of working.

## 5. Streamline rollout using automation

Most organisations prefer a phased rollout for major new solutions, typically starting with a few pilot sites to ensure everything runs smoothly and address any initial challenges before scaling up to full deployment.

Increasingly, automation - often referred to as Zero Touch Provisioning - has proven to be an efficient method for managing this rollout. With this approach, on-site deployment relies on a pre-developed automated (or semi-automated) tool that either executes the necessary steps or guides an engineer through them. As a result, the engineer only needs to ensure that the correct buttons are pressed and cables are connected in the right order and at the right time, without directly interacting with key systems.

This approach ensures consistency and minimises the risk of error. It is as efficient and optimised as possible. It removes the need for comprehensive testing at each new site. And crucially, it lowers costs – you don't need a specialist for each step – and accelerates the process: you can have multiple deployments happening simultaneously, because the resource requirement is minimal .

**We use the unique Maintel Orchestration Platform both to support the process, automate the configuration download (and keep it up to date), test the service is operating correctly and to track progress as the rollout takes place, providing clear evidence of what has been completed. This ensures confidence in the process keeps growing, both centrally and at each site.**

## 6. Stay focused on the end user experience

During SD-WAN deployment, it's easy to focus primarily on the needs of the networking team - especially once the solution moves from design to rollout and management.
However, we've found that keeping the end-user experience front and centre, even post-implementation, delivers real value.

Once a site goes live on the new SD-WAN, evaluate performance from the user's perspective. Test how well different services function across various locations, monitor any reported issues—whether related to speed, access, or reliability—and ensure the project plan allocates time and budget for gathering and addressing user feedback.

Finally, close the loop by sharing this feedback with senior decision-makers. Their investment in SD-WAN should be validated by tangible improvements in user experience, reinforcing that they made the right choice.

It's equally important to think about how new users are provisioned and supported. Clear communication with users is essential: they need to know what they can do, how to do it, and where to find help. Whether it's new staff in a store or office, or residents in supported housing, guidance must be straightforward and easy to follow to prevent frustration and unnecessary service desk calls. We often collaborate with our clients to ensure their communications are as clear and user-friendly as possible.

A further risk for housing is that residents may withhold rent or other payments when promised services are not working correctly.

This affects overall cashflow for the provider as well as potentially creating additional costs to manage the dispute. It's far more cost-effective and beneficial to ensure a reliable Wi-Fi service is consistently delivered.

## In conclusion

There is clear evidence that SD-WAN, supported by SSE, is the logical and increasingly advantageous choice for corporate networks. The more complex the infrastructure and diverse the user needs, the greater the potential benefits of adopting SD-WAN.

However, our experience in helping clients transition to this model shows that without careful planning, deployment can quickly become more costly and frustrating than necessary for all involved.

These challenges are avoidable with thorough preparation. By addressing the issues highlighted here, you can increase your chances of a successful, on-time, on-budget deployment that meets user needs from day one.

Our recommendations are not a one-size-fits-all solution or a simple checklist to follow. Rather, they complement the planning process, helping to streamline implementation without replacing the need for careful planning. By incorporating these considerations into your SD-WAN deployment, you'll be better positioned to achieve more effective and successful outcomes.

## Checklist

1. Ensure the network team driving the SD-WAN project collaborates with the security team from the outset.
2. Clearly establish roles and responsibilities, including project team membership, to avoid ambiguity.
3. Review your actual infrastructure against the documented version.
4. Review existing IT contracts to understand limitations and unused capabilities.
5. Consider a Cyber Maturity Assessment.
6. Gather information about user groups and their needs.
7. Gather details of locations, considering site surveys where appropriate.
8. Produce a generic first design, to allow for iterative review and fine-tuning with stakeholders.
9. Run trials and POCs where relevant.
10. Develop an automation tool for full rollout, to allow rapid and low-cost Zero Touch Provisioning.
11. Ensure end users are supported, including through effective guidance.
12. Build in time for user feedback and improvements.

**If you're thinking about SD-WAN or SSE and want to find out more about the benefits and practicalities, we'd love to talk.**

To get in touch, visit:
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# Solid Solutions for a Dynamic World

Maintel is a communications managed services provider. We empower our clients across the public and private sector to deliver mission critical services and achieve their workplace, service and customer experience goals.

We consult on the design, deploy and manage network infrastructures, platforms and software, including our own, that keep ongoing operations running smoothly and dependably, protecting business as usual, at the same time being flexible enough to adapt.

When customer, employee, the general public and regulatory expectations are ever-changing, choose Maintel. We provide progressive, solid solutions that help you succeed in a demanding, dynamic world.

## Our Services

We provide solutions that are not only robust but also adaptable and responsive to the ever-changing nature of the world around us.

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