



# Deploying SD-WAN: Key Recommendations



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SD-WAN technology has been on the rise in the past few years, and will continue to grow in the future. Analysts like IDC and Gartner have made varied predictions around the size of the SD-WAN market – anything from \$2B to \$5B – in the next few years. The rapid growth in the SD-WAN market is primarily due to three reasons –

- › The ability to abstract network hardware and centralize network management, which results in more scalable, governable and secure enterprise networks
- › The flexibility to dynamically and cost-effectively allocate network resources across geographically dispersed resources, something which is extremely cumbersome and resource intensive in conventional settings
- › Strong compatibility with existing network components. SD-WAN controllers can operate along with existing WAN infrastructure, and keep business disruption to a minimum

However, getting your SD-WAN setup in place involves a significant amount of time and effort. There is no ‘standard’ approach for SD-WAN implementation that is applicable to all organizations or industries. Here are 10 recommendations for technology leaders to consider to help build a robust, scalable and sustainable SD-WAN strategy.



## 1. UNDERSTAND WHAT THE BUSINESS NEEDS FROM THE NETWORK

SD-WAN implementation requires a deep analysis of the business environment, technology architecture and existing network / connectivity challenges. Business leaders, departments / end-users as well as technology teams need to work in tandem to develop the organization's SD-WAN blueprint.

## 2. MAP EXISTING WORKLOADS TO NETWORK PERFORMANCE NEEDS

Appropriate network resource allocation is a critical aspect of SD-WAN implementation. It is therefore very important to understand how current workloads function and transact across the existing business environment. This allows IT and business teams to have a clear picture of network performance needs for different parts of the business, and allocate resources effectively.

## 3. UNDERSTAND AND ALIGN STRONGLY WITH LOCATION OR BRANCH-SPECIFIC NEEDS

One of the biggest benefits of SD-WANs is the ability to centralize network management across dispersed locations. The biggest challenge here is for companies with a huge number of



nationally (or globally) distributed offices (almost every offline business - retail, logistics, aviation, oil & gas, power & utilities, telecom, banking). Such distributed organizations often have huge disparities in network hardware, router architecture, management / security and maintenance resources, across different locations. This is why it is very important to understand and align to location-specific networking needs before charting your SD-WAN strategy.

## 4. ENSURE SUPPORT FOR LEGACY NETWORKS

Network management teams should build in SD-WAN systems that are integrated strongly with existing networks (MPLS) and performance management applications (WAN optimization, security, governance) used by the organization. This greatly derisks the business by ensuring alignment to existing processes.

## 5. IDENTIFY HIGH-IMPACT USE CASES

The strongest ROI from SD-WAN implementations are likely to be from across high-volume, dynamic workloads that vary greatly from one industry to another. For example e-commerce usually has large workloads across front-end applications like portals and bank-end systems like payment gateways. Banks need significant network availability for net-banking transactions, real-time settlements and end-of-day reconciliation. SD-WAN strategies need to prioritize high-impact use cases that are specific to the business or industry to ensure the most optimal utilization.



## 6. CONDUCT PILOTS TO REFINE YOUR SD-WAN APPROACH

Diving head-on into SD-WAN implementations is likely to create more problems than it solves. A robust SD-WAN strategy involves identifying strong use cases and conducting pilots to refine these use cases, before going for a complete enterprise-level implementation. For example, a pilot at a remote location can help identify challenges around legacy integration, training of remote resources, bandwidth, etc. Addressing such challenges at a pilot level help in creating a much more robust and scalable SD-WAN setup at an enterprise level.

## 7. HAVE CLARITY AROUND INFRASTRUCTURE MODELS ACROSS THE ENTERPRISE

SD-WAN architecture and approaches differ for different types of infrastructure – cloud, on-premise or private cloud. With many organizations adopting multi-cloud and hybrid IT ecosystems, SD-WAN strategies need to factor different types of infrastructure used across different workloads.

## 8. INVEST IN TRAINING AND CHANGE MANAGEMENT

While SD-WAN deployments do not severely disrupt existing network architecture, there are many significant changes in terms of centralization, network policies and maintenance / support



practices. Organizations need to ensure that network management resources and teams at every location are provided adequate training to align with new networking processes, security guidelines and policies.

## **9. THINK INTENSIVELY ABOUT NETWORK SECURITY**

SD-WAN security is often overlooked when putting together an implementation plan. Since SD-WANs run on public infrastructure, security measures like threat monitoring, D-DOS prevention, firewalls and secure gateways are critical to ensuring SD-WAN security. Implementing uniform security protocols actually becomes easier with SD-WAN as compared to legacy network architectures.

## **10. LEVERAGE MSPS FOR SUSTAINED OPERATIONS**

World-class Managed Service Providers (MSPs) such as NTT Comm. – Netmagic offer a pretty comprehensive set of services for SD-WAN consulting, set-up and management, e.g., data security, last-mile-connectivity, unified governance, performance monitoring, etc., along with strong SLA-backed processes. Over a period of time, self-managing SD-WANs (distributed locations, cloud-based resource management) can take significant time and resources on a day-to-day basis. Using MSPs through long-term SD-WAN Managed Services contracts can help bring greater robustness and sustainability to your network operations.

With CIOs across the world taking active steps towards SD-WAN adoption, Indian IT leaders cannot afford to be far behind, since most large businesses in India face global exposure and global competition today. Network scalability and availability have become critical factors that drive business goals such as growth, time-to-market and customer satisfaction. Getting their SD-WAN story right, early on in the transition journey, would help organizations pave the way for long term scalability, sustainability and competitive advantage.