

Industrialized Software Defined WAN (SD-WAN) Service

Communications, Media and Information Services



Abstract

Rapidly growing bandwidth demand has been leading to congestion in wide area networks (WAN), along with a lack of application visibility. This has been resulting in poor experience even for critical traffic, while high multi-protocol label switching (MPLS) bandwidth cost has been pushing up opex. The need to continuously monitor, upgrade and operate the WAN, also adds to the opex. With more and more applications moving to public cloud, connection security has become an important consideration for enterprises. Time is another concern with MPLS set-up in branch offices taking up to eight weeks of lead time.

TCS Industrialized SD-WAN comprises tools and frameworks to accelerate customers' B2B journeys. Our software-defined networking solution allows secure access to enterprise applications through encrypted overlay tunnels. Application visibility and quality of service (QoS) enables prioritization of traffic, so that critical applications can be served better. Zero-touch provisioning enables setting up branch offices quickly and simplifying branch connectivity. With centralized visibility from a single dashboard, fewer employees are required to manage large WANs efficiently.

Overview

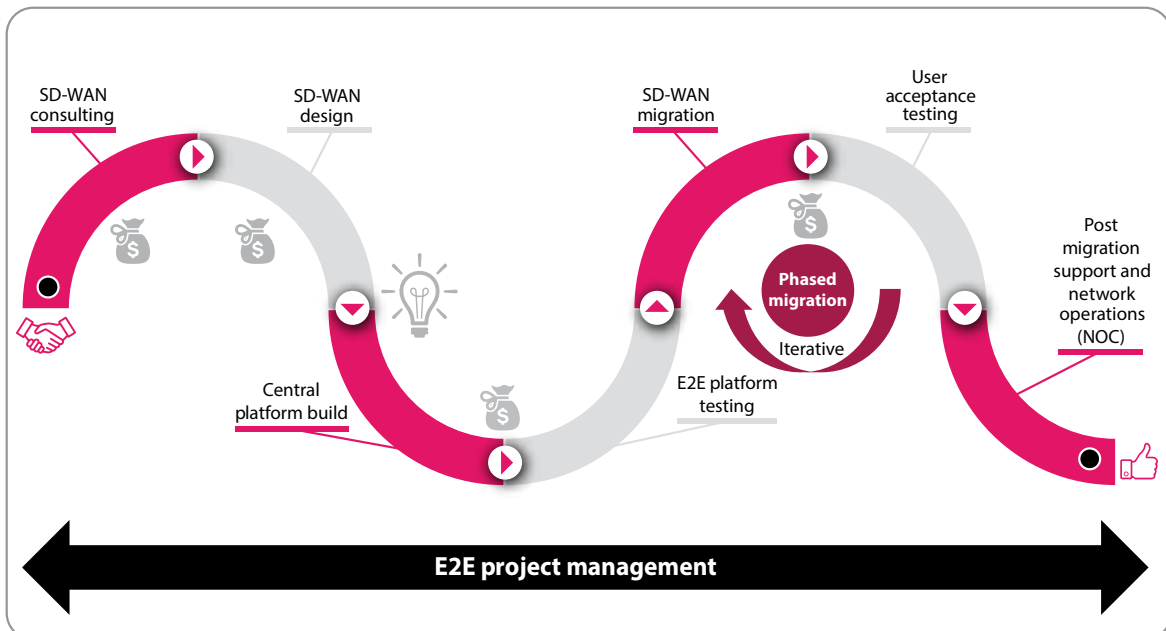
Enterprise WAN challenges are multiplying by the day with communications service providers (CSPs) routinely struggling with a slow adoption of technology and delayed revenue realization owing to a lack of B2B network understanding. Uninspiring sales closure rates lead to B2B leaders seeing both a dip in business value and market share. Enterprises are therefore opting for software-defined wide area networking (SD-WAN) solutions to reduce dependency on MPLS links. However, multiple technology platforms and geographies with non-standard and complex processes, as well as migration designs involving complicated configurations of SD-WAN, security, cloud and unified communications make for a tardy migration journey. CSPs also want to scale in or scale out based on market dynamics and fluctuating market demands, with high MPLS bandwidth costs, increased time-to-market and inflated budgets only adding to their pain points.

Our solution

TCS Industrialized SD-WAN offers end-to-end work packages with a pay-as-you-go model, scaling skilled resources for fluctuating demands. Our solution boosts the slower B2B sales closure rate, allowing CSPs to make build versus buy decisions with ease. With SD-WAN consulting, companies have been able to drive new revenue streams, while deploying flexible teams for peak workload. It is subdivided into various work packages that bring value to the enterprise depending on the stage of network transformation:

- **Consulting:** Empowers enterprises to identify and quantify the value that SD-WAN brings to them.
- **Design:** Provides enterprises with target design and configuration of their SD-WAN edge devices and controller, and orchestration components, once the SD-WAN product is identified.
- **Central platform build:** Facilitates configuration and testing at the pilot site to fine-tune design and to deliver superlative network performance.
- **E2E platform testing:** Enables end-to-end (E2E) testing for services.
- **Deployment and migration:** Simplifies migration to a SD-WAN network with phased deployments, and user acceptance testing before going live.
- **Post migration support:** Perform SD-WAN network monitoring, L1/L2 troubleshooting, and network change management for SD-WAN network.
- **Project management:** Executes the entire network transformation process while managing schedules, risks and costs.

The illustration below depicts the end-to-end SD-WAN transformation journey



Benefits

With TCS Industrialized SD-WAN, CSPs can enjoy the following benefits:

- **Customer satisfaction:** With the use of automated testing framework, we ensure rapid and accurate pre and post migration service testing leading to an assured migration success.
- **Savings:** With application-aware SD-WAN design and configuration in place, the customer not only saves on consumption of costly MPLS links, but is also able to avoid application performance degrade due to network blackout and brownout.
- **Accuracy:** We perform accurate, as-is, physical and logical network discovery, identification of top bandwidth-consuming applications and compare running configuration of CPEs. This enables us to come up with configuration templates of various types of customer sites. This enables right routing and SD-WAN design to efficiently utilize network resources.
- **Automation:** Use of templates in various phases - design, deploy, testing and handover coupled with the use of tools for network discovery and testing makes the deployment journey largely automated and predictable.
- **Performance improvement:** Application performance significantly improves due to service-aware network powered by SD-WAN.
- **ROI:** Customer saves on MPLS link cost as well as on service downtime due to application-aware and performance-based traffic steering by SD-WAN.

Why TCS

TCS offers the following unique advantages:

- **Relevant experience with global footprint:** With over 10 global customers and more than 3,000 SD-WAN installations, we have extensive experience to empower any telco enterprise with SD-WAN transformation.
- **Strong alliances with product vendors:** We have alliances with top SD-WAN vendors and can guarantee integrated delivery through partner ecosystems leveraging best practices.
- **Solution enablers:** Our frameworks and solution accelerators such as: TCS HOBSTTM Connected Devices Management (CDM) and TCS NetomateTM allow enterprises to design and test the solution.
- **Workforce excellence and elasticity:** We engage with the right mix of onsite-offshore resources from existing engagements, center of excellence (CoE) teams and local hires.
- **Flexible pricing model:** With independent pricing of various work packages, our solution offers the flexibility to choose the right work package suitable to your specific needs.

How we help our customers

TCS partnered with a US-based global education services provider — an enterprise client and a leading workforce solutions provider — developing a turnkey solution with people, process and technology. The company had been struggling with brownfield migration, lack of in-house network skills and documentation, and failed SD-WAN migrations resulting in capex and cost pressures.

Redesigning branch LAN infrastructure for SD-WAN, we implemented QoS for LAN and WAN services, prepared technical design documents for campus migration and integrated applications on the cloud (AWS) to branch locations. As a result, our enterprise client achieved 90% design accuracy with a right-first time Index of more than 95%, driving savings in opex due to accelerated migration and onsite support.

Awards and accolades



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