SD-WAN CONSULTANCY,
DEPLOYMENT & OPERATIONS

THINK FUTURE - **THINK. TRANSFORM.**

SD-WAN MARKET

Software-defined WAN (SD-WAN) is a technology that distributes network traffic across wide area networks (WAN) using software-defined networking (SDN) concepts to automatically determine the most effective way to route traffic to and from branch offices and data center sites. SD-WAN provides secure, IP-based virtual overlay networks that typically use IPsec tunnels over Internet or MPLS underlay networks. SD-WANs support any topology, be it full/partial mesh and hub and spoke.

Enterprises faces challenges with traditional Wide Area Networks (WAN) from managing it to controlling costs, SD-WAN is set to explode the market as network professionals rely more and more on SD-WAN to streamline connections among enterprise sites.

The market for this technology – which was $225 million in 2015 – is expected to touch $1.19 billion by the end of this year, according to IDC. Over the next five years, SD-WAN sales will grow at a 69% CAGR, hitting $8.05 billion in 2021, according to IDC's Worldwide SD-WAN Forecast, 2017–2021.

SD-WAN KEY OFFERINGS

With its vendor agnostic and phased approach, TCTS has expertise in leading SDWAN solutions, and can help any telco and large enterprise in deployment of SD-WAN solution of customer's choice besides assistance in vendor evaluation process for their digital transformation.

ARCHITECTURE
TCTS SDWAN Architecture
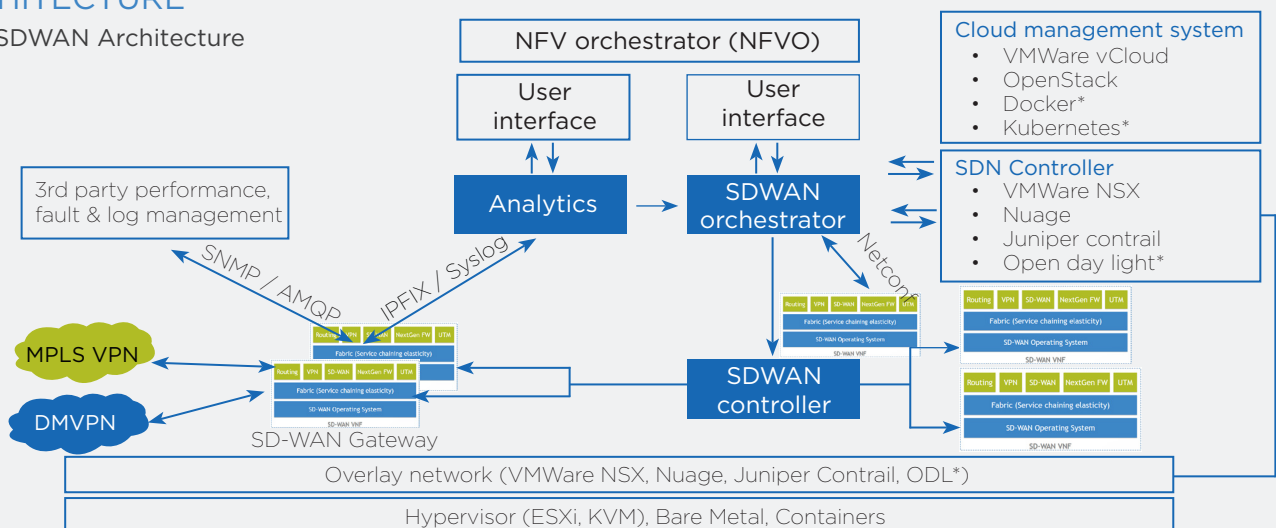
TCTS' leading partnered SD-WAN solution provides benefits like ZTP (Zero Touch Provisioning), segmented network, on-demand BW, app specific path control centralised control and host of multiple features.

At the heart of SD-WAN solution is the SD-WAN VNF software instance, which is a highly available distributed virtual network services appliance that is built from ground-up for multi-tenancy, dynamic elasticity (aka scale-out/in), high availability and service chaining capabilities.

SD-WAN VNF, a software instance, lets users seamlessly configure and manage layer 4 through layer 7 network services. It has a distributed architecture with clqvices running in the network to the built-in analytics module. SD-WAN Analytics platform can generate appropriate reports on a per tenant basis.

The following network and connectivity services are supported by SD-WAN VNF

- Routing Services: L3 White Box (L3 customer premises equipment), Route Reflector, Provider Edge, Carrier Grade NAT

- Security Services: L3/L4 Firewall, Next Generation Firewall, Intrusion Detection and Prevention (IDP/IPS), Zero Day Attack Prevention, Network Anti-Virus and Anti-Malware, URL Filtering, DDoS protection, DNS Filtering, Application Detection & Control, and several others

- VPN Services: Site to Site IPSEC VPN

- Network Services: DHCP Server and Relay, QoS, VRRP, BFD & Ethernet OAM

- Software-Defined WAN (SD-WAN) with Link SLA Monitoring

- Application Delivery Controller – L3/L4 Load-Balancer

- Zero Touch Provisioning, Secured Connectivity

- Centralised configuration, management and policy enforcement

- Support for generalised templates

- Passive and active monitoring for SaaS applications

- Support for high availability

- Support for service chaining and direct internet access

- Carrier grade NAT, Stateful Firewall, NextGen Firewall, URL Filtering, DDoS, Anti-Virus etc.

Engagement Models

- Per site pricing in case customer opts for phased approach

- Per project price in case customer goes for Big Bang Approach (Pricing on Big Bang will also be on number of sites - <100, 100-250, 250-500, 500+)

Value Proposition

- Unmatched telecom expertise

- Strong presence in global telecom space

- Strong certified SME team with multi-domain expertise in IP, Transport, Wireless, SDN, NFV, Virtualization etc

- Along with in-house expertise, benefits from established relationships with organisation/companies promoting SDN/NFV

- Vendor Agnostic: Best selection of OEM based on Vendor evaluation experience

- OPEX reduction – optimising people, processes and technology

TCTS is better positioned to address the growing needs of CSPs in the SD-WAN space given our unmatched telecom expertise. TCTS can support CSPs in implementing advanced solutions while managing the legacy network operations. CSPs can transform their operations in many ways to make themselves more efficient and agile but the most ambitious programs involve streamlining of connectivity among enterprise sites.

About Tata Communications Transformation Services (TCTS)

Tata Communications Transformation Services Limited (TCTS), a 100% subsidiary of Tata Communications Ltd, provides leading business transformation, managed network operations, network outsourcing and consultancy services to telecom companies around the world. TCTS delivers operational efficiency, cost transformation and revenue acceleration solutions for all the stages of the carrier process lifecycle, including but not limited to network engineering and design, implementation and operations.