

SD-WAN USE CASES

SD-WAN is an application of Software Defined Networking (SDN) technology applied to Wide Area Networks (WANs). It is an overlay service, which works with any access or 'last mile' technology to deliver a seamless, evolutionary enhancement to a legacy Virtual Private Network (VPN).

There are 4 key areas in which Vertel SD-WAN addresses the challenges and complexity of traditional WAN architectures and ICT operations, and can play a critical role in delivering enhanced network performance and reduced costs:

AGILITY: New site deployment; new application deployment; real-time policy changes; operational costs reduction

VISIBILITY: Network management simplification; network policy confirmation and site audits; fault identification and resolution

RELIABILITY: Network redundancy and uplink aggregation; application aware routing; real-time monitoring and alarms; security at the edge of the network

FLEXIBILITY: Carrier and transport agnostic; Cloud and datacentre integration; migration from legacy networks.

VISIBILITY

NETWORK MANAGEMENT SIMPLIFICATION

Challenge

Any medium-large enterprise dealing with a high number of sites faces the challenge of delivering a uniform network experience across all locations.

The enterprise IT manager currently has two options to achieve this:

1. Leverage a single Telco provider for all sites.
 - A single network = a single point of failure
 - A single network is not necessarily the most cost effective option
2. Deal with multiple Telco providers and merge the networks through existing routers and VPNs.
 - Diverse technologies can be complex and result in degradation of the overall network performance
 - Legacy networks at some sites may not be able to deliver all the required features and services
 - Requires highly skilled engineers to maintain the network

With the increasing migration of businesses to Cloud computing, visibility and performance of each of the business critical applications is now just as important for ICT/NOC managers as the WAN bandwidth utilisation itself.

Solution

Vertel SD-WAN delivers the flexibility of multiple carriage providers (as in option 2), but with a host of additional benefits.

The network that the IT manager sees and experiences is now a virtual overlay that automatically manages the complexity of the diverse underlay (WAN links). Organisations can choose the most economical connectivity option for each site, but have real-time visibility and control of each of them via a client portal.

By replacing or augmenting the edge device with SD-WAN, ICT/NOC managers have access to a real-time monitoring and reporting portal that provides application recognition and performance reports.

Benefits:



Significantly simplify network management



Gain real-time visibility and control of each WAN link and the applications running across the links at each branch location

NETWORK POLICY CONFIRMATION AND SITE AUDITS

Challenge

The larger the network, the more difficult it is to implement standard policies uniformly across all sites.

Increasingly large drawings and documents must be created and maintained, operations support systems (OSS) and business support systems (BSS) integration must be provided, and numerous hours of NOC engineering are required to confirm policy and behaviour conformance in a network audit.

Solution

Vertel SD-WAN provides a single entry point to create, manage and deploy all network policies. The topology of the network is always accurate and reflects the real-time behaviour of the network itself.

Benefits



Confirmation that the correct policy is deployed at each site and network performance is error-free

“With Vertel SD-WAN, gain deep, real-time insight into application and network performance, network security and the end-user experience.”

FAULT IDENTIFICATION AND RESOLUTION

Challenge

Datacentre migration, Software as a Service (SaaS) and public or hybrid Cloud implementation, millennial workforce expectations and security across the entire network are all adding complexity and stress to the day to day life of an IT Manager. Network faults occur, and need to be managed and resolved efficiently as organisations become increasingly reliant on their network to remain competitive.

With a traditional WAN or managed router service comprised of numerous vendor networks and systems, hours of work are needed just to identify and isolate a fault. The information required is simply not there or not easily accessible from a single platform.

Solution

Vertel SD-WAN has a unified network topology with real-time reporting and alert capabilities, which deliver immediate and accurate identification of network problems, along with the ability to manage the available WAN connections to resolve and test the problem without affecting the rest of the network. Application-based policy rules optimise performance based on the current condition of the network and associated graphs and reports provide confirmation and on-going visibility of the entire network.

Benefits



Identify and resolve network issues with visibility of network layers



Move into resolution mode if the issue is in your domain



Escalate to a network service provider with accurate and detailed information to expedite their fault identification process



Temporarily and instantly adapt your network policy to minimise the impact of the fault

FURTHER INFORMATION

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