SD-WAN - the connectivity solution for the cloud era

Gerhard Olivier, solutions consulting manager at First Technology National advises that when migrating workloads and applications into the cloud, several important factors need to be considered.

Gerhard Olivier, solutions consulting manager at First Technology National

He says, “Prior to any migration into the cloud, a comprehensive assessment of network capabilities and bandwidth requirements is a must. It is also essential to examine each application’s data requirements, in order to ensure that the most appropriate bandwidth decision is taken.”

Organisations also need to be cognizant of the fact that many issues besides insufficient bandwidth will result in latency on the network, including congested routers, long distance between routers and firewall issues, to name just a few. All of these areas need to be mapped and evaluated to ensure smooth operations when cloud services are switched on.

“Testing is the best way to mitigate future issues, as even a small issue that goes unnoticed in the pre-deployment phase can escalate to a major issue and fixing it post-deployment can come at a much higher cost,” says Schalk Steenkamp, technical architect at First Technology National.

In addition, it is very important that organisations' consider the following regarding security:

- Security of the WAN Links
- Data security
- Contractual lock-in's
- Data breaches and downtime
- Visibility into cloud data
- Control over cloud data
- Data Sovereignty

Traditional architecture needs to evolve

According to Olivier, many organisations want to move to the cloud to enable their business to move faste and be more agile. This is where the correct SD-WAN Solution and architecture plays a key role to ensure successful journey to the cloud, especially where branch offices are present.

Traditional WAN architectures were created for applications residing within a data centre, not for cloud applications and therefore lack agility, flexibility, efficiency and most importantly security. It has not been designed to optimally support the cloud consumption model in an efficient way.

Accessing applications in the cloud on a traditional WAN architecture can lead to wasted bandwidth, additional operating costs and higher latency.

"The management of traditional WANs can also be rigid and complex, and any network changes can be lengthy and challenging to implement, adding to inefficiency and cost. It is therefore beneficial for organisations to simplify their WAN architecture to achieve agility," Olivier says.

Playing a key role in the cloud Journey experience

SD-WAN is a virtual WAN architecture that allows enterprises to leverage any combination of connectivity services, including MPLS, LTE and broadband internet services, to securely connect users to applications

Steenkamp highlights that aside from providing enhanced speed and agility, SD-WAN reduces costs by providing optimised, multi-point connectivity using distributed, private data traffic exchange and control points.

He says, "Users have secure, local access to the services they need – whether, from on-premise or the cloud, this is true regardless of the location of the user, from head office to remote sites and branch office

SD-WAN can be seamlessly upgraded by adding new links, with no changes necessary to the infrastructu or network. Using this technology, it is possible to cost-effectively mix and match network links according t content type or priority. Steenkamp adds, "This ensures optimal cost-effectiveness while maintaining network efficiency."

The right technology partner is paramount

Ultimately, SD-WAN offers greater flexibility, visibility and control over your network while lowering costs a most importantly, ensuring that your WAN is cloud-ready. However, when it comes to planning and

implementing an effective SD-WAN solution, the complexity and magnitude of the task can seem overwhelming.

Partnering with a technology specialist is of the utmost importance. The right partner will assist an organisation with planning, optimising and testing the correct SD-WAN solution. This enables an organisat to reduce costs, by simplifying their configurations and operations, resulting in enhanced performance and improved reliability.