Can SD-WAN help overcome IT skills shortages?

A recent survey, conducted by Uptime Institute, showed that data centre IT skill shortages will intensify as most operators continue to struggle with staffing issues.

Source: pixabay.com

Interestingly, the primary driver cited was an ageing worker pool and the overwhelming male makeup of this sector.

According to the survey results, other factors contributing to skill shortages include a lack of hybrid IT skills; a lack of new skills (like managing SLAs for off-premise workloads); a lack of software skills with the adoption of software-defined technologies; and fewer young men and women entering the field.

Anton Jacobsz, CEO at Networks Unlimited Africa, says the data centre IT skills shortage is spilling over from the data centre to the management administration of branch office infrastructure.

“The two go hand in hand as most skills are leveraged across both areas and brand office networks are merely a ‘miniature architecture’ of the data centre network.”

In a blog discussing this shortage, Silver Peak's Rami Rammaha said branch office networks typically include switches, routers, WAN optimisation appliances, firewalls and other networking gear that all require similar IT knowledge and skills as the data centre. "As enterprises embrace digital transformation initiatives and leverage a cloud-first strategy to accelerate the transformation, new and hybrid IT skills are fast becoming critical to success."

Rammaha delves into the top three IT skill shortages and offers guidance around how SD-WAN can bridge the gap:

1. Hybrid-IT skills

As more organisations embrace a cloud-first model, IT must support applications running on-premise and in public clouds as well as SaaS applications and IaaS services.

IT has full control of on-premise infrastructure and is fully familiar with the tools to manage it.

For public clouds, IT must adhere to the cloud providers' offerings and constraints. This challenge is amplified if the organisation embraces multiple cloud providers.

"SD-WAN can help in that it provides a holistic view and centralised orchestration and automation of business-intent policies," says Rammaha.

"This simplifies operations for IT and minimises the learning curve cycle."It also improves and simplifies the connectivity between on-premise and off-premise infrastructure. With an SD-WAN, IT no longer needs to manually configure and provision VPN tunnels.

2. Managing SLAs for off-premise workloads

Rammaha says that it is estimated that 80% of enterprises have adopted hybrid or multi-cloud architectures (source: RightScale 2018 State of the Cloud Report). Therefore, managing SLAs regardless of where the application resides can be a daunting challenge for IT.

SD-WAN defines QoS and security policies easily for workloads from a centralised orchestrator across all branches without the need to manually program each branch separately, simplifying overall management.

"Once SLAs are defined, an SD-WAN monitors link performance and automatically corrects for unforeseen impairments such as packet loss, latency or jitter without IT intervention," he says.

3. Software skills with the adoption of software-defined technologies

One aspect of software-defined technologies is the move away from manual device-by-device configuration and management, often employing a CLI. Another is the ability to integrate with 3rd party orchestration systems, collectors, etc. with open APIs.Here, SD-WAN provides Restful APIs that can easily integrate with other systems as well as templates that can accelerate the integration process.

"New technologies like SD-WANs are intended to increase business agility and help IT to complete tasks with greater ease, efficiency and effectiveness," says Rammah. "The business-driven Unity EdgeConnect SD-WAN edge platform from Silver Peak can greatly improve the efficiency of managing the WAN edge, helping organisations assuage the IT shortage gap and overcome this challenge."

Jacobsz concurs, saying an SD-WANs architecture has been designed from the ground up to support cloud-first initiatives. "Some of the more advanced offerings, such as the Silver Peak Unity EdgeConnect SD-WAN edge platform, were also

designed to be ‘business-driven’, which means the network enables the business, rather than the business conforming to the constraints of the network,” he says.

“Instead of being a constraint, the WAN becomes a business accelerant that is fully automated and continuous, giving every application the resources it truly needs, while delivering 10x the bandwidth for the same budget – equating to increased productivity and simplicity.”

Download the Uptime Institute Global Data Centre Survey (PDF File: 840KB)