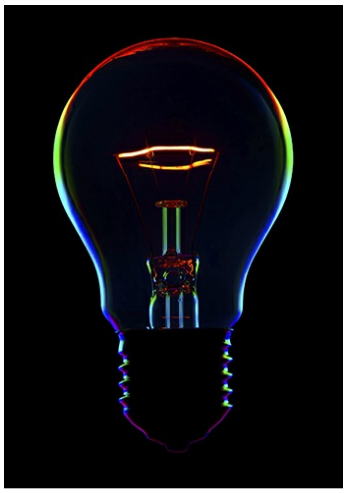
Transforming the Transformers

By: Ben Edmond



Digital transformation means a lot of things to a lot of different people, depending on their perspective, industry position and experiences. While some see it as a shift towards the use of new digital technology to realize cost savings, others view digital transformation as a complete overhaul of their organization's processes and procedures to reinvent experiences for their customers, employees and partners.

Regardless of definition, we can all agree that it is happening now, and those who are not actively pursuing a journey of digital transformation will be left behind. In fact, according to a Tech Pro Research survey, 70 percent of enterprises currently have a digital transformation strategy or are working on one. The benefits of digital transformation are numerous, but when PTC asked executives what they perceive the top benefits to be, they named improved operational efficiency (40 percent), faster time to market (36 percent) and the ability to meet customer expectations (35 percent).

Network and managed service providers are playing a critical role in helping enterprises realize digital transformation by evolving the network to support new technologies such as cloud applications to Internet of Things (IoT), machine learning, artificial intelligence (AI) and more. However, the same network and managed service providers responsible for enabling this transformation aren't immune to the challenges that they themselves are helping to address for their customers. It begs the question: Are the transformers on their own path to transformation?

Driving Network Evolution to Support Digital Transformation

The network is at the heart of all digital transformation enablement. The availability of an agile, reliable, low latency network directly impacts the success or failure of these digital initiatives. Imagine a ride-share app experiencing an error in its network, causing a delay in communication between driver and customer. Or, a situation where a healthcare provider is on a videoconference consultation with a patient and an error in the network causes major lag in delivery. The availability and reliability of these networks is crucial, and infrastructure must keep pace.

Network issues can be especially problematic within organizations that utilize wide-area networks (WAN) for branch offices. These legacy networks utilizing MPLS connections don't lend themselves to the cloud-based collaboration apps and the dramatic increase in connected devices in branch locations, let alone provide adequate security. Enterprises have invested in new technologies to fuel digital transformation, but in order to maximize these investments, they need to transform their existing network.

A recent survey conducted by Hanover Research found that among those surveyed, 36 percent cited legacy systems as being a challenge to realize digital transformation. Meanwhile, in the same survey, 24 percent of respondents identified legacy system complexity and/or the technical department as the most difficult challenge.

Network and managed service providers are offering the solution to transform legacy WAN networks in the form of software-defined WAN (SD-WAN). SD-WAN allows enterprises to control connectivity to their central headquarters and branch offices through a single management plane. It enables enterprise customers to decouple the last-mile provider from the core network, enabling them to select the very best network for each location. This leads to massive economic improvements as well as advancements in performance, flexibility and control.

Up to this point, traditional WAN networks have been built with routers, WAN optimizers and firewalls for each location. With the arrival of SD-WAN, businesses can now connect to remote locations without the need for proprietary hardware or MPLS circuits from carriers. SD-WAN simplifies the management and operation of a WAN by separating the networking hardware from its control mechanism.

SD-WAN is especially key to digital transformation, as it provides the ability to deploy new services and applications across the WAN quickly and efficiently. It addresses the increased bandwidth demands from connected devices with more affordable connectivity options.

According to Gartner, 20 percent of enterprises have adopted SD-WAN, a number expected to grow to 60 percent by 2024. The rise of SD-WAN deployments clearly marks the industry's migration away from legacy MPLS platforms and the embrace of cost-effective flexibility in networking. The SD-WAN market is projected to reach $5.25 billion, growing at a compound annual growth rate (CAGR) of approximately 31 percent from 2018 to 2023, according to a report by IDC.

There are several benefits to SD-WAN that prove to be very compelling for enterprise customers.

Cost savings

SD-WAN utilizes lower-cost connectivity that works in conjunction with or replaces expensive MPLS connections. Moreover, Nemertes Research notes that due to the more transparent and automatic failover when WAN links fail, SD-WAN can reduce branch WAN outages and troubleshooting costs by 90 percent.

Business agility

By using broadband circuits instead of dedicated lines, SD-WAN can be installed and provisioned quickly, taking a matter of days to come on line instead of a month or more. The centralized, policy-based management of SD-WAN also lends itself to rapid deployment of new WAN-based services.

Security

Instead of relying on multiple devices and firewalls at each site, SD-WAN offers the ability to consolidate and simplify security management with built-in security and encryption capabilities.

Reliability

SD-WAN enables traffic to flow over two or more independent WAN links, allowing organizations to diversify their WAN connections and increase reliability.

Cloud and mobile application performance

SD-WAN increases application performance by intelligently controlling and more efficiently utilizing all available WAN transport resources.

Application visibility

Most SD-WAN solutions offer visibility tools that help network managers monitor application usage and performance.

Increased IT staff productivity

A study by Nemertes found that those who converted to SD-WAN have experienced a 20 percent reduction in staffing required for the WAN and a 33 percent reduction in the amount of time WAN staff spend troubleshooting.

Bringing Digital Transformation Full Circle

As enterprises invest in SD-WAN to upgrade their networks in support of their digital transformation initiatives, it's also critical that MSPs understand last-mile connections with laser accuracy in order to capitalize on the growing trend. To be competitive, network operators and MSPs need to quickly identify diverse, redundant networks that can serve potential enterprise clients. To do so, these service providers must begin their own journey of digital transformation to integrate new technologies into their sales efforts to achieve this objective and meet their SD-WAN conversion targets.

One of the common challenges in digital transformation—regardless of industry or organization size—is the ability to relinquish old processes and technology to make way for the new. Service providers are not immune to this issue. Unfortunately, many providers' sales teams still rely on archaic processes, such as Excel docs and "best guesses" to determine these last-mile connections. The irony here is that the provider ultimately responsible for this transformation has not looked within its own organization to fully realize digital transformation with regards to data collection and organization.

Providers that begin this transformative journey should rely on location-based intelligence and street-level knowledge of the competitive landscape to be able to identify diverse, redundant networks that can serve multi-location enterprises. Those that lack the location-specific intelligence into which networks can service which locations will fall behind on executing SD-WAN transformation projects, while those armed with location-based analytics and insights will capitalize on this lucrative trend.