Clearing the Path to Cloud Transformation

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Cloud powers the modern enterprise. In fact, it is estimated that 83 percent of enterprise workloads will operate in the cloud as of 2020. But the network infrastructure on which many businesses run was not built to accommodate mostly cloud-based workloads.

Legacy network technology is impeding enterprise digital transformations. As more enterprises evolve their IT strategies to include not just hybrid cloud but multicloud (a mix of private cloud and potentially multiple public clouds), your network becomes a key component. How you connect users to data is critically dependent on the connectivity you're using. With more and more information traveling over and congesting the network, this is where enterprise technology is now being stressed.

Today's organizations work differently—with a dependency on cloud, more apps, and a globally distributed workforce. All this puts a strain on the current network, which was designed before big data, IoT, SaaS, and cloud. And the end users are feeling that strain: 37 percent of line-of-business executives agree their legacy networks are not ready to support cloud applications, even though most organizations already rely on public and private cloud services.

Amid an ever-growing need for better work experience, cloud challenges call for a new network architecture design. The network has become the next critical step in digital transformation—and organizations will need to determine how to best optimize and migrate network technology so that bandwidth can be used more effectively and efficiently. As part of that transformation, there is the opportunity to choose new enabling technology that streamlines operations and simplifies the management of connectivity.

Understanding the need for better connectivity

Whether you use a private cloud connected to a corporate wide area network (WAN) or multiple public cloud providers interconnected with dozens of private cloud sites across the globe, you are at risk for network congestion impacting usage. Ultimately, you are likely not getting the desired user experiences with your applications over a legacy infrastructure that was not designed with cloud in mind.

A lagging digital experience on both the employee and customer side has a measurable impact on the bottom line. Within the average organization, 52 percent of employees are unhappy at work because of the software tools they are using, and nearly a quarter (24 percent) said those poor tools have made them consider leaving their jobs.

On the customer side, application providers know they must win over their subscribers with a top-tier experience. One study found that for 73 percent of users, application performance impacts their view of the service provider, and 38 percent were disappointed with the performance of their apps. Most digital services, from TV, video and music streaming to B2B SaaS tools, now operate on month-to-month subscriptions. The ease of canceling and switching to a new provider means customers

aren’t held back from ditching a poor service provider—a fact that should concern teams that haven’t yet give thought to network transformation.

With this impact in mind, the effect of poor connectivity is even more pronounced if you have customers and employees accessing apps from across the globe. Routes become congested because they are not optimally designed for how businesses interact with data and applications today.

As a result, you will face not just lower throughputs and higher latency, but also higher costs. The urge to solve network congestion leads many teams to pay more for priority services or add higher bandwidth, but those upgrades still do not provide the needed visibility and control over connectivity.

Achieving network transformation

So, what can you do to address the problem in your enterprise? Forging your way to higher-functioning cloud connectivity starts with gaining a deeper understanding of the data movement across your network. Investigate how data usage is currently set up and where data and applications live. Understand where your people are and what applications they’re accessing day-to-day. Throughout this process, you should ask yourself many questions, including the following questions:

- Where is your cloud?
- Where is your data?
- Where are your data centers?
- Where are you storing data compared to where your computing occurs?
- What elements is your network connecting?
- What kind of access to the cloud do you currently have?

Taking the time to map out these elements provides a valuable birds-eye view of your network strategy and helps you formulate an idea for how to manage all the pieces of your network together for peak performance. Once you do so, it may quickly become clear which areas of your network are ripe for optimization.

To start acting on the new understanding of your data, you will need to upgrade your architecture with new technology, different providers and end-to-end management. There is no single network that reaches everywhere for all things, so in defining your transformed hybrid network, you must look at multiple network providers and service technologies, and then plan to manage those services cohesively for optimal connectivity.

Based on the information map of where your people and customers are located and what clouds and data centers you use, research and design a network of services that solve for the usage at each location. Your transformed architecture will likely be a hybrid including a combination of fiber, Ethernet, and IP services. A hybrid network will also leverage existing services where they still work best and add the optimized new services to achieve the desired overall results.

A next-generation network provider can help you access these elements and optimize your cloud connectivity strategy based on your business’ needs. In researching the ideal partner, you should keep a few specific needs in mind. First, your provider should offer a broad portfolio of technology options—after all, no one technology is right for every location or business.

Second, you should prioritize a provider that relies on software-defined intelligence to monitor and route your workloads depending on traffic patterns and congestion points. With unified, end-to-end visibility, and service management across fiber, Ethernet, and IP services, the provider should be able to actively manage the bandwidth your business is using from each office location, to data centers, to all the private and public cloud instances your business relies on.

On your way to a cloud-first transformation

As teams become even more reliant on the cloud to build and run their internal and external tools, a full-on connectivity crisis will emerge if organizations don’t manage their networks properly.

Thanks to technology’s increasing role in all our lives, application users are becoming even more accustomed to lower latency and higher performance in all the tools they use. Organizations that don’t hurry to take action on network transformation will eventually reach a tipping point where their unoptimized networks’ inability to function leaves them totally incapable of keeping pace with competitors.

The challenges posed by legacy infrastructure against ever-increasing cloud use pushes enterprises to get smarter about their cloud connectivity strategy. The right network transformation can provide a future-proof solution that will grow with enterprise business and its digital strategy.

With a software-defined interconnected network fabric, the WAN can be optimized and groomed as new services become available or new enterprise requirements are established. Delivering an agile, dynamic solution capable of seamlessly absorbing new technology innovations will keep your enterprise competitive for years to come.