Digital Transformation's Unsung Hero

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Digital transformation has been on the lips of most technology executives since the personalization of information technology (IT) started in the late 1990s. As a technologically knowledgeable workforce started to push the envelope to have the same level of digitization at the workplace as they have in their personal life, organizations have had their sights set on modernizing applications and technology infrastructure in a never-ending quest to keep pace with a changing technology landscape. Unfortunately, a key component in delivering the user experience organizations crave is often forgotten: the network, the "unsung hero."

Ensuring that the network can reliably and efficiently deliver data traffic to and from the cloud can make or break application performance, user experience and an organization's ability to operate. But too often the network is something that IT doesn't give a lot of attention to; it becomes an afterthought until the day it doesn't perform as expected.

Defining digital transformation

First, let's clarify what digital transformation means because the term has become broad and, depending on where you live in the IT ecosystem, means something different to each person. Most of us define digital transformation as taking an application or work task and applying technology to that task to make it easier to use and to create better efficiencies, accuracy, and workflows.

For managed network solutions providers, the meaning is more nuanced. A digital transformation is when an enterprise migrates data and applications to the cloud, establishing a modernized technology environment that takes advantage of the benefits of public cloud platforms. Very often, the lion's share of the attention is spent ensuring functionality of applications in the new

environment as well as enabling efficient access to massive amounts of enterprise data that now lives in the cloud. But establishing the connectivity that enables what the industry calls the initial "lift and shift" and then adjusting it to fit the longer-term needs of the business is an art form that requires experience, expertise, and key partnerships.

Today businesses are seeing a tremendous amount of benefit in shifting applications and data to the cloud, bringing on the most recent wave of digital transformation. As enterprise technology shifts from the highly controlled environment of the data center to public and hybrid cloud platforms, how do businesses today deliver the promise of digital transformation to their organization seamlessly, simply, securely and cost effectively, while providing a user experience that enables users and businesses to operate efficiently?

We have seen enterprises migrate data and applications increasingly to the cloud as business needs change, workforces morph, and security becomes more important. Managed network service providers help with the "lift and shift" of data and applications while also establishing the right go-forward strategy for businesses to access these new environments seamlessly, providing a positive experience for their users. The result is improved application performance and reliable, secure connectivity.

As we examine innovative approaches to digital transformation, it is important to understand the challenges all organizations face when it comes to addressing this monumental paradigm shift in IT today and the role the network has in it.

Lack of technology and dedicated IT skills

A dedicated, highly skilled IT team is essential to the success of any digital transformation project. But building such a team is becoming increasingly difficult, especially in networking. It's why more and more organizations are looking to partners or managed services to help. The types of managed services any business may need and the list of vendors who supply them are extensive and ever-changing. Finding a partner who understands the landscape and can deliver a best-of-breed approach can simplify the process where internal resources are thin.

Application performance

Quite often when data center applications are moved to the cloud or planned to be moved to the cloud, they have to be re-written or optimized for that new environment. While the job of software engineers is to ensure that applications can access data and perform complex computations, a well-designed network ensures the smooth flow of traffic to and from the cloud environment. And if one of those elements is lagging, the user experience is similarly negative. Though some applications like email and basic web use can be less sensitive to nuanced connectivity dynamics, applications that transmit voice or video can be a disaster when run over an improperly designed network. Public cloud environments are by nature distributed geographically. It's why often these applications, many of which are custom, need to be reengineered to maintain their custom nature, sustain and even improve their performance, work seamlessly with other applications and data stored in the cloud, and preserve a high level of security. It is important that enterprises understand this and are teaming with the right

outsourced solutions provider who understands application performance and can optimize it from a network standpoint without a hiccup.

Uptime and resiliency of the cloud environment

Because of the distributed nature of public cloud environments, if one data center goes down, that doesn't mean the enterprise operation goes down. All public cloud environments are architected with multiple redundancies and failovers that prevent against costly downtime. The uptime and resiliency of the cloud environment is unmatched and provides enterprise customers with peace of mind and lets them rely on the cloud operations to correct any problems, unlike owning and managing one's own data center.

Management and support

Managing applications and data sitting in one's data center requires constant supervision. Server maintenance, software upgrades and security concerns are just a few of the issues that keep IT staff up at night and require internal resources to manage. While the networks traditionally used to access data centers are generally reliable and secure, they are notoriously costly and inflexible. Public cloud environments operated and maintained by managed network service providers take away many of the headaches IT executives have had to deal with over the years.

Budget concerns and constraints

A digital transformation effort that leverages a public cloud environment is attractive to enterprise CFOs who are concerned about the financial implications of such a large undertaking. Funding is always a concern when it comes to technology and as digital implementations are always susceptible to "scope creep," they can become quite costly. However, moving from purchased servers and databases to rented space in a public cloud reduces capital expense and shifts spending to an operating expense model. Budgeting becomes more predictable and manageable, which financial managers prefer. This model also fits neatly with the existing service model already employed by managed network service providers.

All these points are well and good, but how does the network play into all aspects of digital transformation? How should an enterprise understand it? From our point of view, there are three key things to think about when factoring the role of the network into digital transformation.

Understanding the network drives the customer experience

In the end, regardless of how the network fits into the overall digital transformation landscape, it is the customer experience that counts. The customer doesn't need to understand what networks are available and where they reside, nor the myriad of technologies that exist to provide the right solution. This is best left to those with a proven history of expertise in such things. What is important is to be assured the performance of the network will be there given the unique business applications and processes a particular enterprise demands and that the

network has a level of predictability. Without predictability, or consistency of performance, ensuring the right application experience can be elusive. Getting expertise in this area from a managed network solutions provider can be invaluable, given their expertise and history with network management and implementations. They can simplify the complex while delivering high-performing network solutions to enterprises, so the user experience is productive and valuable.

Expertise

It is exceedingly difficult to expect an IT department to have the breadth of expertise and knowledge to integrate all these disparate network elements. Understanding the infrastructure, security, network management, and private connectivity to the cloud is where a managed network service provider can provide the right kind of help to optimize network services for a particular enterprise's digital transformation needs.

Holistic support

Again, few IT organizations have the network support that a holistic support model can provide for each of the network infrastructure, security and traffic management elements. A top-notch managed network service provider solution should be able to deliver a universal or holistic perspective to each environment to deliver the best services possible.

While digital transformation is a trend that is not going away anytime soon, demands on the network to support it will be even greater as more organizations look for better performance out of their IT infrastructure and digital assets. Utilizing data better and more efficiently—and ensuring that digitization helps transform business for success—will be highly dependent on the network. IT departments must better understand how important the network is to support digital transformation and how best to support maximizing its effectiveness. To do so, they need to identify the right help and expertise to optimize and secure this "unsung hero" in supporting digital transformation now and in the future.