

# Why a Comprehensive Connectivity Model Is Key to Enabling Digital Transformation

WHITE PAPER

Business and IT leaders have an enormous opportunity to leverage technology advances to keep their organizations relevant, productive, efficient and forward-looking. The proliferation of cloud computing, social networking, mobile technologies, big data analytics and the Internet of Things (IoT) is allowing enterprises to be innovative in meeting the needs of employees, customers and partners, wherever they are located and whatever devices they are using.

Companies across all industries are using these technologies to transform how they do business. In fact, some have disrupted entire industries: Uber in transportation, Netflix in home entertainment, and Salesforce.com in customer relationship management, to name a few. But these are just the obvious examples. Today's reality is that nearly every enterprise is embracing digital transformation at some level. By the end of 2017, two-thirds of Global 2000 CEOs will put digital transformation at the center of their growth and profitability strategies, according to IDC.<sup>1</sup>

In this era, nothing is more important than having an underlying connectivity solution you can rely on. Just about every piece of data will pass through the network infrastructure multiple times, whether it is created in the cloud, at an on-premises data center, on an IoT device, at a remote location or anywhere else. If the organization is intent on leveraging the value of this data for business differentiation, the underlying network has to be able to provide the proper levels of protection, security, resiliency, speed and compliance for all data at all times.

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<sup>1</sup> "IDC Predicts the Emergence of 'the DX Economy' in a Critical Period of Widespread Digital Transformation and Massive Scale Up of 3rd Platform Technologies in Every Industry," IDC, Nov. 4, 2015

One of the biggest challenges for IT decision-makers is in deploying a comprehensive connectivity model that supports the entire distributed enterprise. Many organizations deploy multiple networks for different parts of the business and different geographic locations. This often leads to information silos that are antithetical to the needs of today's business. The model also makes it difficult for IT to maintain centralized control over data protection and compliance, and makes it challenging to ensure the delivery of consistent network performance for all users at all locations.

Another challenge in the distributed enterprise is to keep costs down while dealing with the need to modernize network infrastructure. Many IT decision-makers recognize they must eventually migrate to a software-defined network model for on-premises networks, which can mean a substantial investment in new hardware and software. Making this type of capital investment can be difficult to justify in a time of tight budgets and in an environment in which comprehensive enterprise-grade connectivity solutions can be purchased from reliable network services providers.

## Why Businesses Need a Comprehensive Connectivity Model

The new reality is that organizations must be able to achieve always-on, always-available secure connectivity across enterprise applications, data and systems if they hope to compete in today's business environment. The key drivers of business transformation and innovation—cloud computing, social media, big data analytics, mobility and the IoT—bring value to the business only when users and machines are connected to one another and the information and services they need.

From the user's perspective—and in today's environment, a user can be defined as an employee, customer, prospective customer, partner or anyone else doing business with the company—the connectivity has to be there. Period. And it has to deliver the required level of performance and bandwidth, without compromising security, data protection or the user experience.

The challenge for IT decision-makers is to ensure that they can deliver this level of uncompromised connectivity to all potential users, at all times, at all locations, on all devices, using a wide range of applications—some of which may be supported by on-premises infrastructure and some of which may be supported and delivered in the cloud. By viewing connectivity as a strategic imperative and addressing the needs of the business as a whole, IT teams can deliver a range of benefits to their organizations, including:

- **Ability to control costs:** One of the biggest challenges for organizations is keeping costs down as demand grows for faster connectivity and more bandwidth. This challenge will become only more demanding as organizations create more information through social media, the IoT, big data and other initiatives. Adding more switches and network infrastructure to drive bandwidth growth is expensive, time consuming and a drain on precious IT resources.
- **Support for cloud models:** Most organizations support multiple clouds, whether public, private or hybrid. According to one survey, organizations are using an average of six different clouds.<sup>2</sup> Another survey showed that the average organization uses more than 720 cloud services.<sup>3</sup> Organizations have to ensure that their connections to the cloud are reliable and secure, without relying strictly on the

<sup>2</sup> "Cloud Computing Trends: 2016 State of the Cloud Survey," RightScale, Feb. 9, 2016

<sup>3</sup> "How Many Cloud Services Do Your Clients Use," MSPmentor, May 28, 2015

open Internet to provide access to off-premises data and applications.

- **Mobility:** Mobility is a fact of life for just about every business. Workers need access to information and applications from any location, whether using company-provided access or through bring your own device (BYOD) initiatives. Customers and partners need to use mobile apps to interact with the business. If the network is not available or performance is compromised, there will be a negative impact on revenue, trust, goodwill and brand reputation.
- **Support for IoT and big data analytics:** IoT and big data analytics are providing opportunities for innovation and digital transformation across many industries, particularly healthcare, financial services, manufacturing, retail and education. Leveraging these technologies requires high levels of network performance, coupled with reliable and available connectivity.

## Enabling Comprehensive Connectivity

Delivering this level of uncompromised connectivity across a distributed enterprise can be an extremely costly and complex endeavor, particularly for IT departments that choose to go it alone, without working with a provider that can deliver comprehensive network services such as data protection, security, cloud connectivity, threat management and managed services.

By working with a third-party network services provider, organizations can leverage virtual and physical private Ethernet connectivity to ensure that there are no gaps in network performance and availability for critical applications such as virtual storage, cloud services, big data, disaster recovery, backup, and development and operations (DevOps).

Building out this type of connectivity from scratch is expensive, time consuming and resource intensive for IT departments. It is also risky because security and compliance challenges keep evolving, and the technology is evolving as well. By the time the network is up and running, some of the technology can wind up being obsolete.

In addition to third-party dedicated Internet access, organizations can also leverage a third-party provider for all or some of their most critical connectivity functions as a managed service. These can include managed connectivity, Wi-Fi, security, voice and business continuity, among others. Among the benefits of the network services model are:

- **Lower costs:** In addition to reducing capital expenses, organizations can shift from a Capex model to an Opex model. In addition, they can utilize usage-based plans to pay for only the services they need and require.
- **Cloud agility:** Cloud models give organizations much greater agility and allow them to rapidly accelerate time to value. IT teams don't have to build infrastructure for each new endeavor, and the self-service capabilities and elastic scalability of the cloud can be used to empower business decision-makers.
- **Improved productivity:** IT teams will be more productive and strategic because they won't have to worry about keeping the network up and running. Users will be more productive because they will have less downtime and be able to access key applications and data from wherever they are located, using whichever device is suitable for the task at hand.
- **Ability to future-proof the network:** By working with a third-party provider for network services and managed services, the organization can leverage technology advances when they become

available rather than waiting for a particular equipment supplier to add them.

- **Increased availability through field services support:** A leading network services provider will typically have an extensive maintenance and support team the IT department can leverage to enhance availability, deliver consistent performance and improve the uptime of business critical applications.

## What to Look for in a Provider

Working with a third-party provider of network and managed services provides IT with the simplest, most cost-efficient and most comprehensive path to ensuring enterprise-grade connectivity for all users within the organization.

But not all network service providers provide the same levels of services and support. In evaluating potential partners, the IT team should be asking these key questions:

- **Can you deliver a comprehensive portfolio of services?** In today's environment, with enterprise users distributed across a variety of locations and the need to support mobile applications greater than ever, organizations must have flexibility in the types of services they use. They need to be able to choose from options such as Ethernet services, dedicated and mobile connections, managed services, business services, Wi-Fi for both internal and customer use, voice, threat management and other services so they can apply the appropriate service that best fits the needs of specific users, applications and workloads. This is not a one-size-fits-all network environment. It is also important to work with a partner that can manage all of your connections, whether they are provided by the

network services company itself or another third-party provider.

- **Do you have an extensive field services organization?** Almost all organizations are more distributed these days, with employees working out of field offices, home offices and mobile locations. Most businesses can't afford to have the sheer number of field service personnel required to support such a broad and diverse workforce. At the same time, organizations can't afford any downtime. Therefore, field services should be an important consideration in choosing a network services provider—to ensure not just availability but also that the underlying infrastructure can satisfy a diverse set of issues ranging from meeting service-level agreements to addressing employee morale, customer goodwill and regulatory compliance.
- **Can you help our organization stay current with technology innovation?** One of the biggest challenges in today's environment is dealing with the pace of technological change. Companies are creating more data, which is an important factor because it is putting more pressure on network availability, bandwidth and performance. Innovations such as software-defined networks are redefining how networks are deployed and evolving. In working with a network services provider, it is important to understand which technologies it is deploying—and how it is deploying them—so that your organization can take advantage of a future-proofed connectivity model that supports modern applications, including those that are mobile and those that support IoT devices.

## Conclusion

This is a critical time to be in IT. Innovations such as cloud computing, social networking, IoT, mobility and

big data analytics are driving a new paradigm in technology and forcing organizations to embrace digital transformation. In this environment, business success is dependent upon ensuring network connectivity.

With everything riding on the network, IT teams must deliver on all critical aspects required by the business: performance, reliability, simplicity, scalability, security, ubiquity and resiliency. Trying to go it alone in today's environment is risky and unnecessary. It is much safer and more cost effective to work with a third-party

network services partner that can deliver the range of services and the quality of service demanded by the modern distributed enterprise. Choosing the right partner for network services is one of the most important decisions facing IT teams today.

**For more information on how your organization can utilize a comprehensive connectivity model to support IT modernization and digital transformation, visit [Comcast Business](#).**

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