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Enabling the Distributed Enterprise

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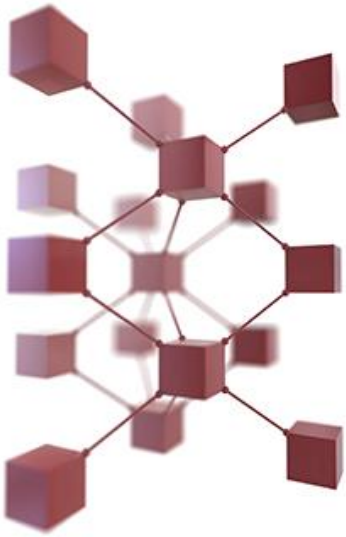

The way organizations store and utilize data has undergone a transformation, especially in recent months. Driven by increased use of web-based applications, more remote workforces, and the incorporation of new data-intensive technologies, the importance of data and its ability to flow seamlessly across the enterprise IT architecture has grown substantially. As this evolution continues, business footprints are becoming more distributed and IT architectures are incorporating a growing number of partners and platforms in service of expanding data mobility, availability, security, and accessibility demands. One key element of this digital transformation — the cloud — is exhibiting strong growth as a solution to these requirements. One survey notes that in 2020, 81 percent of technology decision-makers indicated that their company already used at least one cloud application or relied on some cloud infrastructure.

With business becoming more digital and distributed, connectivity arises as a key challenge — especially as the rate of these transformations accelerates. Existing IT complexity is being compounded by shifts to remote workforces in the wake of a global health crisis (a Gallup poll) taken in October 2020 observed that while some employees were returning to on-site operations, remote work is still largely ongoing). Taking these factors into account, it is clear that while connectivity is more crucial than ever, ensuring it is extended to all business endpoints is becoming a more involved task.

Despite the advantages that hybrid frameworks, cloud-based solutions, remote work, and new web-based applications are delivering, making these disparate elements connect is becoming a more challenging task. In an era when business depends on data flowing easily from on-premises

locations to at-home devices, third-party data centers, web-based applications, cloud platforms, and beyond, it is clear the enterprise network needs to be reinvented. The question now comes down to what the networks and connectivity solutions of the future will look like.

SaaS driving digital business

The widely recognized uptick in cloud computing adoption is particularly apparent in the Software-as-a-Service (SaaS) arena, which remains the largest cloud market segment and was forecast to grow to $104.7 billion in 2020. In fact, reports have noted that in 2020, it was expected that 29 percent of workload deployment would come from SaaS and hosted applications, which include platforms like Salesforce, Dropbox, Slack, and DocuSign. This SaaS concentration, and the larger focus on cloud, is being strengthened by a number of drivers. Some of the primary reasons that businesses turn to cloud-based solutions are to cut costs and limit complexity. These two factors increase pressure on business operations as IT evolves to offer more capabilities and accommodate more data than ever before.

SaaS solutions enable enterprises to shift the complexity and costs of managing software out of house. In these cases, there is no internal time or resources taken for initial software or hardware installations, and there are no ongoing tasks associated with updates or other maintenance. Instead, businesses get to focus purely on reaping the benefits. At the same time, SaaS providers' core competency is ensuring the utmost availability, reliability, security, and performance for the consumers, meaning that the enterprise can rest assured it is getting the best and most successful outcomes at a reasonable cost.

SaaS and other cloud solutions offer the ability to customize, allowing businesses to adjust their IT frameworks to suit their own unique digital transformations and growth trajectories. The cloud also offers high levels of accessibility and data mobility — both prized assets in the digital economy. With remote workforces becoming central to operations and business models becoming more flexible, the ability to access mission-critical data and systems from any device and at any time with one simple Internet connection represents a powerful but necessary foundation.

The challenges of a distributed enterprise

While increased cloud and platform integration solves many of the enterprise's current roadblocks, it also creates new challenges that must be overcome. Where complexity is mitigated in some areas, it is also exaggerated in others — namely, complexity that comes with incorporating more and more disparate elements into the IT framework. With each new partner and platform that is integrated, the underlying network is being stretched to its limit.

These cloud applications are only as powerful as the connectivity that supports them, so ensuring networks are up to the challenge is paramount. If security software takes too long to update, then enterprises risk creating points of failure that can cripple the business should they be exploited. If Enterprise Resource Planning (ERP) systems go down or lag, then business-critical

insights and real-time updates are lost, costing teams time and necessary visibility into operations. If sales segments cannot access CRM platforms, client relationships and carefully built reputations can deteriorate.

Cloud-based elements of today's digital business are crucial and span an array of functions, so solving for these types of situations and ensuring the right connectivity backbone is in place is vital. Robust, dynamic, highly flexible, and agile networks are at the core of ongoing enterprise success, and the transition to a powerful connectivity solution cannot wait any longer.

Rearchitecting the network for greater agility

Traditional networking incorporates models like point-to-point connectivity or wide-area networking (WAN), and while these approaches have served enterprise needs for some time, the acceleration of digital business is making them obsolete. The enterprise can no longer thrive on a network that was built on the back of phone lines and had data capabilities added on top — they require networks that are purpose-built for expanding footprints, cloud consumption, and data-hungry applications.

One way that enterprises are transforming network architecture is through the use of direct private peering — direct interconnections between networks and SaaS providers or content providers that create route optimization. Direct peering is a high-quality, low-cost model that overcomes the challenges associated with traditional public Internet services and multihomed networks. Direct interconnection also averts the hurdles created by connectivity that is tied up in Tier 1-centric frameworks — a legacy approach to Internet access that is built on route exclusivity and necessitates buying bandwidth from one or more Tier 1 providers. Since the thousands of SaaS providers, content providers, and broadband networks that comprise the Internet may not source bandwidth from the same Tier 1 providers, traffic between business locations and platforms becomes weighed down by multiple handoffs and long routes. This creates performance issues and costly, subpar outcomes for the enterprise, all of which can be avoided with more effective connectivity solutions.

A new service standard

Network management approaches must also change to allow for greater control and flexibility in order to help enterprises meet dynamic requirements. To accomplish this, consumption for network management and maintenance is changing. As IT complexity goes up and internal strain on time and capital rises, outsourcing is becoming an increasingly attractive option for enterprises. Where before enterprises may have been managing the network internally, many may now want to — or need to — outsource this responsibility to managed service providers (MSPs). This allows them to realign and preserve their resources without sacrificing cost efficiency or performance.

To ensure network transformation can be achieved with minimal disruption and the most successful outcomes, enterprises must understand the new criteria for the MSP selection

process. One of the primary considerations for choosing a partner that can thoroughly support distributed architectures should be identifying a provider that offers high levels of visibility and flexible service options for simplified, dynamic consumption.

Managed service providers that suit the requirements of the distributed enterprise need to be able to monitor the network of diverse platforms and locations through a unified, consolidated view. Visibility into key metrics like utilization and access to comprehensive performance analytics are necessary for ensuring customer requirements can be supported when and where they are needed. Furthermore, connectivity must be able to be purchased and adjusted according to consumption, similar to the way enterprises currently purchase cloud. When efficiency, visibility, and control can be expanded and aligned in these ways, dynamic enterprise needs can truly be empowered no matter how IT frameworks continue to grow or change.

Achieving transformative results

Digital business is altering the way enterprises are employing IT. Now, an array of web-based applications, cloud platforms, and service partners are fundamental for success in a rapidly evolving landscape of data demands and distributed workforces. This means that the connectivity and networking at the foundation of enterprise IT must change, offering greater agility, efficiency, and cost-effectiveness.