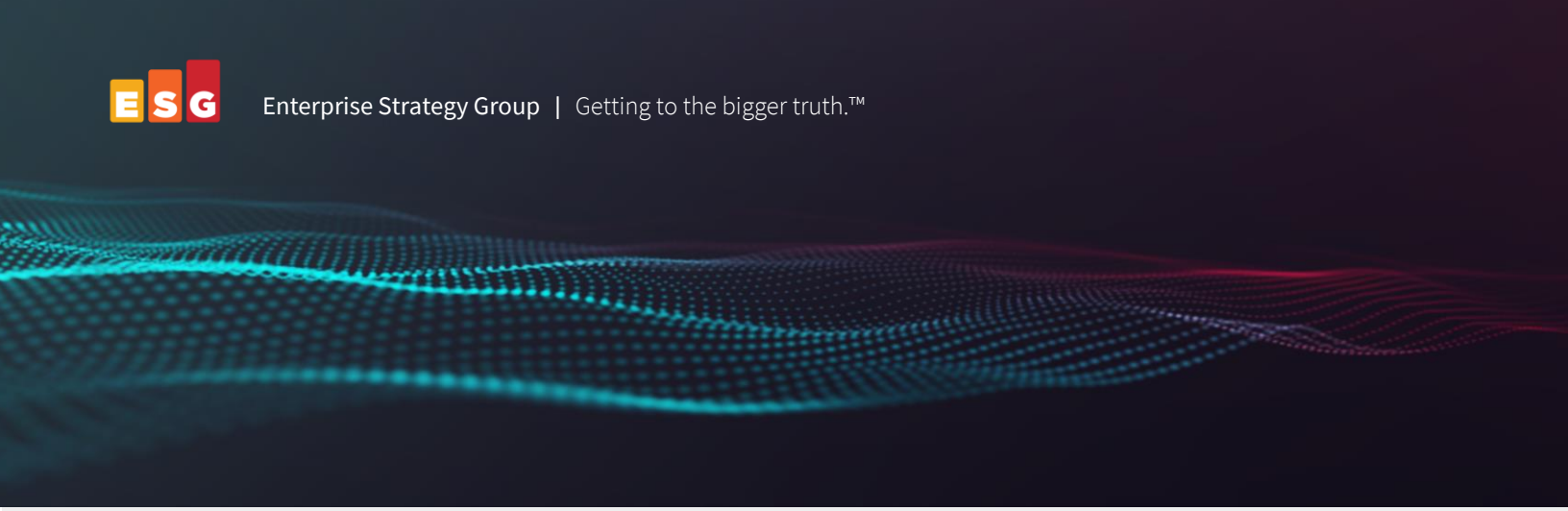

ESG WHITE PAPER

TPx Communications: MSx Managed SD-WAN Services

Enhancing application performance, policy automation, and comprehensive management

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Contents

Digital Transformation Initiatives are Accelerating 3
Digital Transformation Initiatives are Driving Cloud-based and Managed Network Services 3
Modern Network Architecture is Needed to Meet Demands of Highly Distributed Environments 4
TPx Offers a Simple, Cost-effective Managed SD-WAN Solution 4
Centralized Business Policies 4
VMware SD-WAN 4
Improved Performance and Enhanced Customer Experience 4
Quality of Service/Performance, Quality of Experience 5
Secure Connectivity 5
TPx MSx WAN Features 5
Olios Health Case Study 6
The Bigger Truth 6

Digital Transformation Initiatives are Accelerating

To better compete in a digital economy, organizations must become more agile and responsive to changing market demands. This translates into digital transformation accelerating across industries and growing numbers of organizations are embracing digital transformation to achieve better operational efficiency and provide improved user experiences.

In fact, ESG research shows that a majority of organizations (88%) have implemented or are in the process of implementing various digital transformation initiatives. More importantly, the research also illustrates why these organizations are transforming, as they report that the top objectives of their digital transformation initiatives are to become more operationally efficient (56%), to adopt digital tools and processes to support a distributed workforce (49%), and to deliver a better and more differentiated customer experience (40%) (see Figure 1).[1]

Figure 1. Digital Transformation Goals

Source: Enterprise Strategy Group

Digital Transformation Initiatives are Driving Cloud-based and Managed Network Services

ESG research shows that cloud-based services are rapidly increasing, with 94% of organizations using SaaS and IaaS to some degree, and nearly 8 in 10 remaining on-premises workloads considered likely candidates to move to the cloud over the next five years.

As a result, IT environments will become highly distributed, with applications now hosted across the cloud, corporate data centers, and edge locations, and employees working from home or anywhere. In fact, according to ESG research, remote work environments created in the pandemic are likely to stay, with 72% of organizations indicating that they are becoming more pro work-from-home the longer that the pandemic has persisted.[2] Hence, many organizations are recognizing that they must adapt to a hybrid workspace model.

Consequently, the network is becoming more strategic to daily operations, and organizations are focused on streamlining network operations by leveraging cloud-based management and additional training, with nearly half (47%) citing adoption of cloud-based network management solutions to facilitate remote access and data collection, while 44% cite providing

[1]Source: ESG Research Report, *2021 Technology Spending Intentions Survey*, January 2021. All ESG research references and charts in this white paper have been taken from this research report, unless otherwise noted.
[2] Source: ESG Master Survey Results, *2021 Technology Spending Intentions Survey*, December 2020.

additional training to their networking staff on modern IT best practices, and 33% say they are looking to take advantage of on-premises managed network service options.[3]

It is also important to note that, in a highly distributed environment, companies are challenged to ensure secure connectivity. Based on ESG research, improving cybersecurity is the most commonly cited consideration for justifying IT investments to business management teams in 2021.

Modern Network Architecture is Needed to Meet Demands of Highly Distributed Environments

It should come as no surprise that legacy network architecture is unable to meet the challenges of a modern, highly distributed organization. Back hauling all corporate and remote-worker traffic through the corporate data center and then to the cloud can severely impact performance, in turn negatively affecting the customer experience. What's more, this outdated model tends to be costly, inefficient, and inflexible.

Organizations must modernize their networks to enable direct internet access, leveraging SD-WAN to accommodate surges in cloud-based application traffic as well as bandwidth-intensive video/voice collaboration solutions and hosted desktops. Unfortunately, most organization do not have the time, budget, or resources necessary to rearchitect, deploy, and securely manage network services for a wide assortment of applications, as well as a multiplicity of broadband providers—which is why working with a managed services provider is a logical alternative on many levels. Enter TPx Communications.

TPx Offers a Simple, Cost-effective Managed SD-WAN Solution

TPx, a national managed services provider, offers managed services supporting a range of managed IT solutions to assist organizations in accelerating a modern WAN environment through its managed SD-WAN services. With more than five years' experience, 50,000 customers across the US, and upwards of 15,000 edges under management, TPx has pioneered WAN modernization, helping to transform traditional WAN environments.

Centralized Business Policies

As an early adopter of VMware SD-WAN technology, TPx understands the best practices for establishing effective business policies for a wide range of industries. These best practices revolve around creating centralized business policies for a variety of applications at remote and branch locations and at the edge and include prioritizing voice/video collaboration over guest Wi-Fi, leveraging zero-touch provisioning (ZTP), and offering the ability to rapidly spin up new sites. Activation, configuration, and management are performed in the cloud, improving operational efficiency and providing the agility and flexibility to quickly address changing business requirements.

VMware SD-WAN

VMware SD-WAN technology offers simple, agile, and secure wide-area networks, capable of utilizing MPLS, broadband, or cellular connections (or a combination of all) that provide improved application performance, increased bandwidth, and comprehensive network visibility. VMware SD-WAN consists of SD-WAN Edges, more than 130 cloud gateways, and an orchestrator to optimize connectivity from branch, remote, and home locations, to cloud providers, data centers, and other branch locations.

Improved Performance and Enhanced Customer Experience

TPx offers organizations the benefit of its deep experience creating managed SD-WAN environments to improve performance and the customer experience when connected to applications located in the cloud, data center, or edge

[3] Ibid.

locations—while maintaining high availability and enhanced security—by leveraging TPx Cloud Gateways (i.e., TPx SD-WAN uses a distributed network of service gateways, offering flexibility, scalability, and redundancy and ensuring optimal paths).

Quality of Service/Performance, Quality of Experience

While optimum network performance is a top goal among organizations in almost every industry—with quality of service (QoS) measuring key network performance metrics—quality of experience (QoE) is just as important (and previously mentioned as one of the top three goals of digital transformation). Without reliable network access and consistent performance, the customer experience quickly degrades, impeding productivity, efficiency—and overall user satisfaction.

Secure Connectivity

Organizations can leverage VMware ecosystem partnerships to connect to cloud-based security functions and get started on the journey to a secure access service edge (SASE) by integrating cloud networking (SD-WAN) with cloud security functions (including secure web gateway, cloud access security broker [CASB], firewall-as-a-service, zero trust network access [ZTNA], DNS, and remote browser isolation [RBI]).

TPx MSx WAN Features

In addition to the above, TPx MSx WAN Managed Services offer the following:

- Inbound Internet Failover provides customers with a Public IP that benefits from SD-WAN enhancements for both outbound and inbound traffic. This includes link steering across multiple circuits and allows TPx to provide QoS performance over any internet connection at an application level.
- Third-party support for internet service providers (ISPs). TPx offers third-party support for ISPs, assuring a single point of contact for all WAN issues, which helps alleviate the burden of IT staff having to expend time and energy dealing with multiple services and vendors.
- Support for MPLS, broadband, and cellular (4G/LTE) connections. TPx Managed Services support MPLS, broadband, and cellular 4G, with plans to deliver 5G as it becomes widely available. In addition, TPx offers 4G LTE as primary, secondary, and redundant options to increase flexibility and connectivity options.
- Bring-your-own-network (BYON) capabilities. Customers can take advantage of TPx network connectivity, or use their existing, contracted network connectivity for SD-WAN solutions to provide investment protection and minimize waste.
- Active/active versus active/passive modes. Legacy networks typically run in an active/passive mode (the passive mode doesn't carry any traffic until a failover). SD-WAN enables an active/active system consisting of two active links, prioritizing essential applications (e.g., guest WiFi might be dumped in favor of more urgent needs) and enabling users to leverage all available bandwidth, allowing organizations to use everything they are paying for. In addition, SD-WAN solutions can leverage cellular as a tertiary link.
- Work-from-home functionality. SD-WAN provides the ability to easily segment work traffic from home/personal activities to assure that work experiences are optimized, enhancing productivity and user satisfaction. For organizations with customer-facing roles, such as contact center employees, this could be important to ensuring a positive customer experience.

Olios Health Case Study

Synovation Medical Group is a medical provider specializing in pain management. With over 400 employees distributed across 36 different facilities located in four states, it is one of the largest organizations of its kind and services over 1.2 million patients. In addition to the back-office applications, the IT team at Olios Health, Synovation's affiliated management services organization, needs to ensure that Synovation's doctors, physical therapists, physician's assistants, nurse practitioners, licensed psychologists, nurses, and occupational therapists in these disparate locations always have access to its core electronic health records system located in its private data center.

Synovation and Olios were early adopters of SD-WAN technology and chose to work with TPx for its first deployment back in 2017, with CIO Damian Dyer citing the ability to better manage the quality of service for the applications and the ability to get better analytics and metrics through the dashboard as reasons to work with TPx. One of those applications was video, as Synovation was also an early adopter of unified communications and telehealth platforms. Working with TPx as their managed service provider, Olios rolled out SD-WAN to 22 sites in only six months. Given how working with TPx abstracted all the complexity of rolling out a new technology and also enabled up to 30% cost savings, Damian declared that working with TPX made it a no brainer to go with a fully managed solution. In addition, working with TPx, Olios was able to reduce the length of time for troubleshooting WAN issues from multiple days to only minutes, ensuring optimized availability and performance.

As Synovation and Olios have continued to expand, they have been able to bring new sites online in only three weeks and use cellular backup to supplement land lines where needed, such as in one of their LA offices, where their broadband connections were saturated when COVID hit. TPx was able to augment the leased lines with 4G to ensure that desired performance levels were met. The network was also able to accommodate the increased demand for telehealth and remote access to the EHR system during the pandemic, something Olios stated would not have been possible without the SD-WAN service.

The Bigger Truth

Wide area networks (WAN) are rapidly evolving and becoming more relevant in highly distributed application and worker environments. Given that digital transformation initiatives are accelerating and organizations across all industries are experiencing a massive shift of applications to the cloud—and workers to home—organizations need agile, flexible network solutions that optimize performance, ensure availability, and enhance the customer experience.

TPx provides an SD-WAN managed service, MSx WAN, which leverages VMware SD-WAN technology. The combination of MSx WAN managed services and VMware SD-WAN technology enables organizations to accelerate the deployment of a modern network architecture. In turn, this enables optimized performance, while migrating applications to the cloud and ensuring high levels of security and productivity, as well as an enhanced customer experience.

Working with TPx, organizations can more easily drive operational efficiency, enhance the user experience, and assure optimal security (traffic segmentation). Those organizations that would prefer their IT staff concentrate on revenue-generating activities instead of being mired in managing the WAN (dealing with multiple broadband providers and countless applications), should take a good look at TPX.

Enterprise Strategy Group is an IT analyst, research, validation, and strategy firm that provides market intelligence and actionable insight to the global IT community.

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