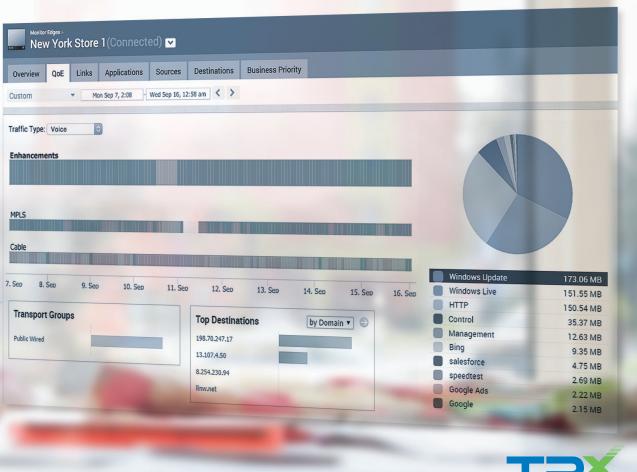
ITx for WAN





Our managed services delivery platform, powered by SD-WAN, lets you put away the ibuprofen and overcome WAN performance challenges as you grow. Congratulations! You've added new locations and now look to grow on a regional and national stage. Your business is expanding — but can your network keep up?

With ITx, powered by TPx's leading-edge SD-WAN capability, you can count on guaranteed performance delivered over the cloud that creates seamless enterprise connectedness.

We'll take deployment headaches like multiple provider footprints, complex routing, skyrocketing expense and limited connectivity and redundancy options off your desk. Migraine-inducing spotty Internet performance, inflexible static architecture and slow response times for critical apps can be distant memories. Distance, network hops, slow run times and bandwidth issues go away.

The business map today reflects the greatly expanded, increasingly complicated world out there — and that presents challenges and opportunities that demand new tools, responses and approaches. ITx for WAN gives you the resources you need to successfully navigate it, prosper and grow. ITx for WAN uses our state-of-the-art managed SD-WAN platform to deliver three key advantages that make your life less stressful:

Transport-independent performance leverages

economical bandwidth and enables Internet as

enterprise grade WAN (Over-the-Top or OTT)

Business policy automation Simplified IT

operation, zero touch deployments and one-

End-to-end management Direct cloud

access with performance, reliability and

security enable powerful end- to-end

Assured application performance

click service insertion

management

Centralized installation, configuration and monitoring software

orchestrates the data flow through the cloud network. It

enables one-click provisioning of virtual services in the

SD-WAN is game-changing technology

¹ FEATURES & BENEFITS

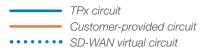
Any transport ITx for WAN supports all Internet transport options (EoX, Fixed Wireless, TDM, DSL/cable, and 4G LTE)

Any network Flexibility to leverage any available Internet access regardless of service provider

Nationwide availability Option to "Bring your own Bandwidth" allows for national off-net connectivity

Quality performance We provide QoS over any network — no "best effort" here

Secure connectivity MPLS traffic encrypted with VPN access to our MPLS network



Cloud VPN Dynamic edge-to edge communication via IPSec VPN connectivity

Active-active Leverage the total bandwidth of dual Internet connections

Flexible continuity options Failover options in the event of an unplanned circuit outage is bi-directional; both circuits back up each other

Application Aware/Smart QoS Customized prioritization of key application data traffic

WAN optimization Forward Error Correction (FEC) improves circuit performance, reducing jitter and packet loss

3rd Party Vendor Management Our ITx support team is already working with customer providers, so they will make circuit repair calls on behalf of customers and are more experienced in getting escalation/resolution

branch, the cloud, or the enterprise datacenter. Cloud Datacenters ALLA A sales*f*orce Transport-independent amazon Orchestrator performance leverages **Public Internet** Branch Office 365 economical bandwidth office and enables Internet as enterprise-grade WAN TPx SD-WAN Datacenter with improved cloud app Managed Services Routers Gateway performance. provide secure optimized connectivity to private, public and TPx A distributed network of hybrid applications, computing **IP Network** and virtualized services. SD-WAN gateways deployed throughout our network provides optimized data paths to all applications, branches, datacenters and the cloud.

Main office

ITX FOR WAN USE CASES Custom Profiles

A TPx Managed Services Router (MSR) enables your most critical applications, using smart control customer profiles that take the load off of your IT department. Out-of-thebox defaults set the Quality of Service (QoS) policies for common business objectives so IT simply has to establish traffic priority. Knowledge of application profile enables automation of QoS configurations and bandwidth allocations.

UCx/SIP Over the Top (OTT)

Get our UCx Unified Communications and SmartVoice SIP trunking solutions coastto-coast anywhere there's a broadband connection. All voice traffic has a high priority policy so that it doesn't compete with public Internet traffic. The circuit may not be TPx, but the Managed Services Router, UCx and SmartVoice are — and we guarantee our performance.

Hybrid WAN

Our customers depend on us to provide them with secure, reliable VPNs leveraging our MPLS network, ①Net. Expand your networking options with a hybrid private network by adding to or replacing expensive T1s with a low-cost, high-bandwidth Internet connection on your existing TPx MPLS network. The resulting solution enables superior customer engagement and end-user experience

> A Managed Services Router (MSR) performs deep application recognition, app/packet steering, and performance metrics to deliver end-to-end quality of service.

while removing geographic barriers coast to coast. And you'll have the ideal foundation for future SD-WAN solutions as your needs and applications evolve.

WAN Optimization

WAN connections don't always perform as we expect. When performance degrades there is a hit to your productivity and revenue streams. We can help make sure your connections are optimized by maximizing the efficiency of data flow across your WAN. SD-WAN technology allows the MSR at your site to mitigate packet loss and latency to the managed services network and helps increase the speed and quality of access to critical apps and information.

Active/Active Continuity

SD-WAN allows you to mix and match any type of transport provided by TPx or your local Internet provider to securely and seamlessly failover to any or all of our core services — MPLS, SmartVoice, DIA, and UCx. And both connections, regardless of who provides them, are in active/active mode. That means that the MSR decides, for each traffic session, which path is the best path in that moment. You do not need to feel like you are paying for bandwidth you aren't using.

4G Continuity

Internet provider redundancy options are limited or cost prohibitive in many places, but you still have critical business you need to keep moving. With Internet continuity over 4G LTE, your business will have a secondary connection with the performance and reliability of a 4G LTE connection. Failover is automatic and the service is designed and priced to support the "must have" apps from your Internet connection.

Our managed services architects will work with you to build a customized solution

Your WAN can become a symphony of private network and OTT Internet connectivity.

WHY TPX

We're implementing ITx for WAN so that you can stay ahead of evolving next-gen networks and take full advantage of the latest SD-WAN technology.

- Easily turn on new service
- Enjoy even better customer support
- Have increased application awareness
- Use whatever transport makes the most sense for your enterprise

Network flexibility

- Use our superior network or go over the top of any carrier — all with guaranteed performance since we manage the delivery
- We prioritize the cloud traffic according to your business priorities
- UCx and ITx services are always high priority

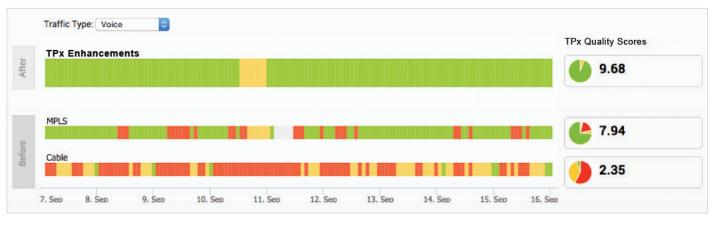
More service options

- Seamless failover/continuity
- Active/active circuit design
- High availability with a 4G option
- MPLS, Internet, and voice

Managed services experience

- We know networks
- We *know* continuity
- We know customer service
- Third-party vendor support
- Smoother implementation
- Much faster trouble ticket resolution

ITx for WAN provides optimized data paths across multiple activeactive transport options through forward error correction and packet steering to maximize end-to-end quality of service.



Performance monitoring can uncover utilization and throughput issues by tracking application usage and identifying traffic spikes with specific apps.

