

Achieve the Perfect Network with TAG Express SD-WAN

Increased bandwidth, greater reliability, improved quality, and lower costs.

Understanding your Networking Challenge

Traditional networks are no longer adequate to power your business. Today's organizations are migrating to Cloud-based business applications to maximize resources and increase productivity. This results in the network becoming a critical bottleneck that can impact your bottom-line.



It's difficult to get all the networking benefits, such as uptime, performance, reliability, flexibility, and ease of management at a reasonable ROI.

TAG Express Powered by Multplied Networks SD-WAN Delivers the Perfect Balance Between Business, Technology, & ROI

A comprehensive SD-WAN platform offers exceptional resilience and performance at the right price.

TAG Express SD-WAN (Software-Defined Wide-Area Network) helps you deliver fully scalable networks that combine multiple connections into a single virtual connection. Deliver always-on connectivity between multiple branches, regardless of geographical location, at a cost you can afford while providing instant failover, QoS (Quality of Service) for voice, encryption, and multi-tenancy.



TAG Express SD-WAN Benefits

COMBINE MULTIPLE CONNECTIONS

Create a single connection out of many lines to give you more bandwidth.

100% UPTIME

Manages the failover of your bond to a supplemental connection (DSL,CABLE, Fiber, 3G/4G/LTE) for ultra-resilient networks.

DATA ACCELERATION

Apply data acceleration to compressible data travelling over your SD-WAN.

VOICE & VIDEO CLARITY

QoS (Quality of Service) profiles let you assign priority layers inside your SD-WAN network. Ensure consistent delivery of important data from VoIP (Voice over Internet Protocol) to PoS (Point of Sale) or other priority applications.

TAG Express Features and Benefits at a Glance

Apply **QoS** to prioritize bandwidth for the applications that matter most, even over Internet circuits.

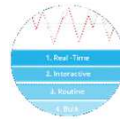
Same-IP Failover allows you to compute through an ISP TAG Express with seamless failover.

Per-Packet Load Balancing manages traffic over multiple WAN Connections for higher throughput.

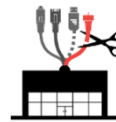
Multi-tenancy provides each sub-tenant with their own space, branded for them and their own customers.

Split packets over multiple circuits to get built-in security. Choose from three **encryption** cyphers.

Private WAN enables you to easily create secure, managed V-LAN's between offices.



Dynamic QoS & Bandwidth Allocation



No Dropped Sessions



Deliver Site Redundancy & Survivability



Multi-tenant to Scale Infrastructure and Build Wholesale



Deliver Secure Networks



Monitor and Manage Networks End-to-End



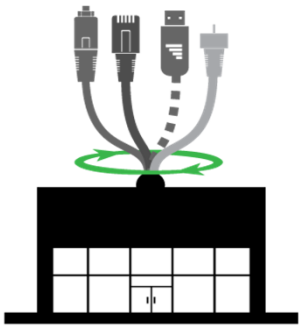
Private Wide Area Network

Bandwidth & Link Aggregation

How much Bandwidth does my Business Need?

It's becoming increasingly difficult to plan for bandwidth needs in today's markets. Bandwidth requirements are based on rapid pace Cloud migration, number of users, and data base information. What you need today could easily be too little tomorrow.

SD-WAN: Scale Bandwidth for Reliability and Performance



Combine multiple available connections to create a single tunnel that delivers faster download/upload speeds. TAG Express's technology allows you to **aggregate bandwidth** from multiple connections regardless of type or provider resulting in speed, redundancy, management and scalability.

Benefits of Bandwidth Aggregation

- Increased Bandwidth
- Increased Reliability for business continuity
- Per-packet Load Balancing for faultless session failover

Combine connections for more bandwidth:

	DOWNLOAD	UPLOAD
Primary Connection	75 Mbps	10 Mbps
Back-up Connection	75 Mbps	10 Mbps
Aggregated Speed	135Mbps*	18 Mbps*

*TAG Express Link Aggregation allows you to use and manage bandwidth from both Primary and Backup connections. It requires approximately 10% overhead..

TAG Express SD-WAN Benefits

INCREASE BANDWIDTH

Enough for all your Cloud and business-critical applications.

WORKS WITH ANY CONNECTION TYPE

Get the aggregate bandwidth of all connections – no matter which type or providers you use: DSLs, Cable, Fiber, Fixed-Wireless, 4G, LTE, T1, etc.

DATA ACCELERATION

Additional on-demand performance enhancements can be achieved by applying data acceleration to compressible data travelling over the bond.

SCALABILITY

Adaptively increase network bandwidth by layering on additional lines, so the network scales to meet your business needs when necessary, at a price you can afford.

Bandwidth Adaptation

Get the Most from your Network

Bandwidth Adaptation prioritizes quality over speed, ensuring your business performs its best. It automatically adjusts the speed and performance of your WAN (Wide-Area Network) connections when your network is busy. When links misbehave, TAG Express's software kicks in and maintains a good end-user experience.

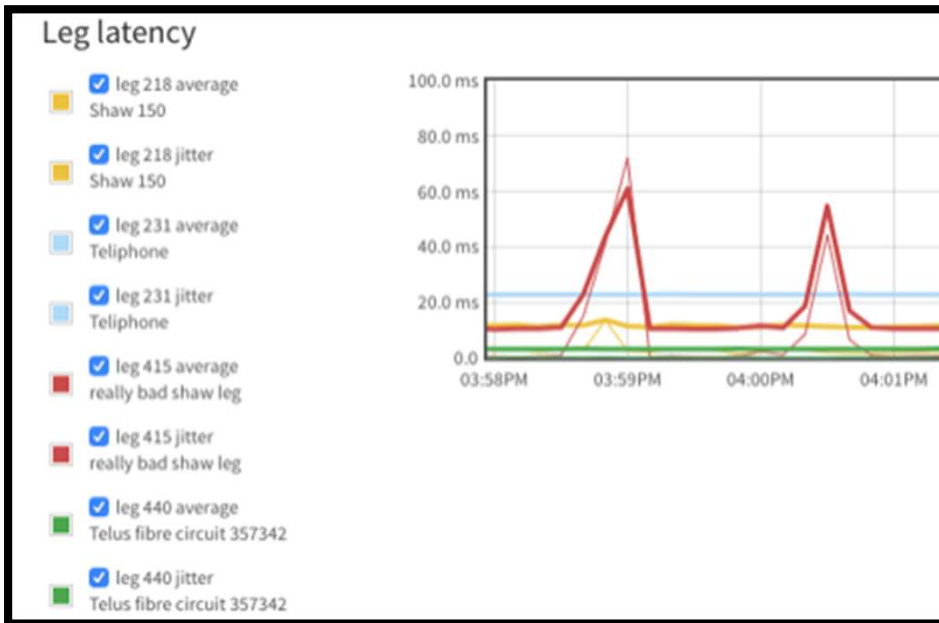
Manage Jitter & Latency

Bandwidth Adaptation monitors the status of each link in the tunnel for deviations from their baseline latency and jitter. When a link is found to exceed its baseline, TAG Express's software automatically reduces transmission speed. This provides a more stable, predictable end-user experience, reducing support tickets.

What Does High Latency Mean for Business?

Excessive latency creates bottlenecks that prevent data from filling the network pipe, decreasing effective bandwidth and delaying packet transit.

Bandwidth Adaptation gives businesses better application performance and voice quality.

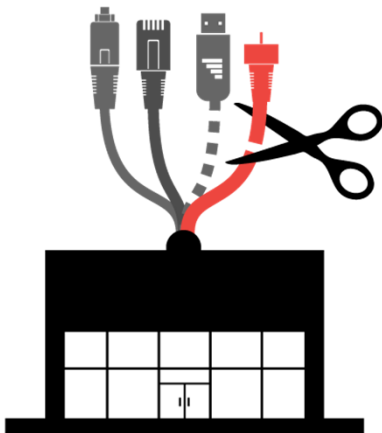


Reliability & Failover

Maintain Productivity by Eliminating Downtime

When your connection goes down, it means dropped VoIP calls, cancelled transactions, and widespread inconvenience and frustration. Businesses should be able to rely on a self-healing system that reduces or eliminates downtime,

SD-WAN: Reliability with Failover



SD-WAN allows any business to combine multiple Internet connections (regardless of provider or type) to create reliable network connectivity.

If one connection degrades or goes offline, your data will continue to flow to its destination uninterrupted. When the problem connection is fixed, the system automatically adds it back. No re-configurations or specialists are required. It's that simple.

Take Your Internet to the Next Level

With robust reliability and near 100% uptime, regardless of branch or office location, TAG Express SD-WAN gives you the confidence to run your business without the risk of downtime. This always-on feature lets you create the network that's right for your business and saves you time and money in the process.

SD-WAN Benefits

NETWORK REDUNDANCY

Providing a fail-safe for when an internet connection suddenly degrades or drops. Your data continues to flow through the remaining healthy links.

SIMPLE NO-TOUCH

No need to reconfigure network settings. You could be on a VoIP or video call when a link degrades or dies and you won't even notice.

SAME-IP FAILOVER

Each appliance maintains its own IP address in the event of a failover. This means no dropped sessions.

Private Wide Area Network

Multi-site businesses must be able to connect head office, branch sites, data centers, and Cloud services into a single, secure solution. Traditional forms of private multi-site networking lack the flexibility, availability and ROI of TAG Express Private Wide Area Network (PWAN). *The 4 most critical factors to consider are:*

Security: Data breaches at large, multi-site enterprises highlight the importance of having safeguards in place to protect your valuable digital information and to meet industry compliance requirements. PWAN encrypts and secures your data in transit.

Cost Control: Businesses spend almost 5x as much to incorporate remote sites compared to urban sites due to logistical complexity. The significant over-spend in both CapEx and recurring monthly charges needs to be contained. PWAN reduces costs using commercial broadband connections.

Reliability: Network failures are inevitable; often caused by cut lines, weather, or other unforeseen issues beyond your control. Businesses need a reliable failover system that can respond quickly and gracefully.

Availability: The ability to easily add users and nodes regardless of geography is a must to future-proof your WAN and meet ever-increasing expectations. PWAN makes corporate applications, like data backup, available at all branches.

SD-WAN Vs. Traditional WAN

TAG Express SD-WAN compares strongly against today's WAN technologies: Carrier Ethernet, MPLS, and Public Internet.

	<u>Security</u>	<u>Cost Control</u>	<u>Reliability</u>	<u>Availability</u>
HIGH	Carrier Ethernet	Internet	SD-WAN	Internet
	SD-WAN	SD-WAN	Carrier Ethernet	SD-WAN
	MPLS	MPLS	MPLS	MPLS
LOW	Internet	Carrier Ethernet	Internet	Carrier Ethernet

Summary

Your goal is to bring together a distributed organization into a secure, reliable, and affordable Private Wide Area Network (PWAN) that easily accommodates changing requirements.

PWAN using TAG Express SD-WAN provides the best overall solution to meet critical goals in a simple and convenient way in order to gain control of the WAN and prepare for the future.

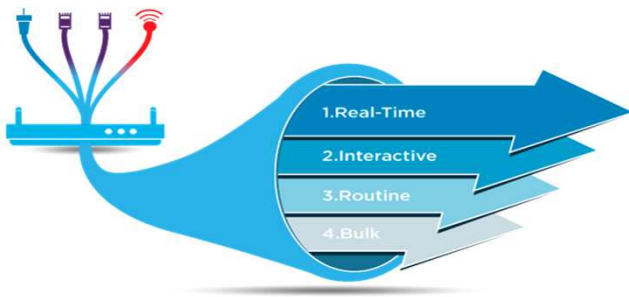
Aggregate multiple sites and circuits into one reliable solution.

Reach even the most cost-sensitive locations with PWAN.

Quality of Service

Deliver Clear Voice Calls with TAG Express SD-WAN

Networks need to be built and managed for voice quality. Without Quality of Service (QoS), data such as voice packets aren't prioritized, leading to choppy calls. Traditionally, QoS can't be delivered over Internet but TAG Express SD-WAN changes that. Prioritize your important data such as VoIP or PoS and ensure optimal application performance and a positive end-user experience.



TAG Express SD-WAN: Quality of Service (QoS)

TAG Express's QoS engine is completely customizable to fit your requirements. It's also dynamic to accommodate fluctuations in application usage so that bandwidth is optimized.

Fully customizable QoS profiles ensure that your most important applications are prioritized over less sensitive traffic. QoS eliminates latency, jitter, and packet-loss problems by prioritizing applications by class and other criteria your business requires.

TAG Express dynamic QoS also adapts to network traffic. If no real-time or interactive traffic is present, the engine allows routine and bulk traffic to use the bandwidth, ensuring a quality end-user experience.

TAG Express SD-WAN Benefits

CUSTOMIZATION

Assign unlimited priority layers inside the connection to ensure consistent delivery of important VoIP and other real-time application data.

EXPANDABLE CLASS PRIORITY

Allows for bursts in use of prioritized applications to manage the flow of traffic between sites.

QoS ELASTICITY

As your business's dependence on IP or hosted voice and video applications increases, so does the need for those calls to be crisp and clean. Get the peace of mind that packets will make the trip free of any disturbances.

Security

Secure your Data in Transit

Organizations are challenged with putting safeguards in place to protect their valuable digital information. However, the reliance on internet and networks in today's business environment means an ever-increasing risk of network intrusion and data loss. As data zaps around the globe in milliseconds, do you really know if your data is secure?

SD-WAN: Encryption Protects your Data



Encryption is the most important privacy-preserving technology available. It protects your data when it's sitting on your computers and when it's being delivered around the Internet.

Implementing encryption is essential and TAG Express offers DTLS in three cipher strengths - AES128, AES256, and Salsa20 to guard the packets that pass over your various network connections.

You Take Network Security Seriously, and So Do We

In addition to standard encryption, TAG Express's SD-WAN technology spreads traffic across multiple Internet connections. Even if an attacker manages to intercept one of your individual Internet connections, only a small fragment of your traffic will be vulnerable. TAG Express provides you with per-packet distribution across multiple live circuits. Combined traffic is authenticated by the receiving server with a hash-based message authentication code (HMAC, from RFC2104). This ensures an attacker can't intercept, modify, or forge messages sent between your sites.

TAG Express SD-WAN Benefits

FOR YOUR FIREWALL

Monitor and control the incoming and outgoing network traffic to identify overall network capacity and enforce entry/exit rules associated with applications.

TRAFFIC DISTRIBUTION

Breaks up sessions into its smallest possible component and distributes the information down multiple connections to add extra layer of security.

ENCRYPTION LEVELS

Provides comprehensive and affordable protection to secure all communications:

- AES 128
- AES 256
- Salsa20

Monitoring and Management

Life in the Fast Lane with No Time to Stop

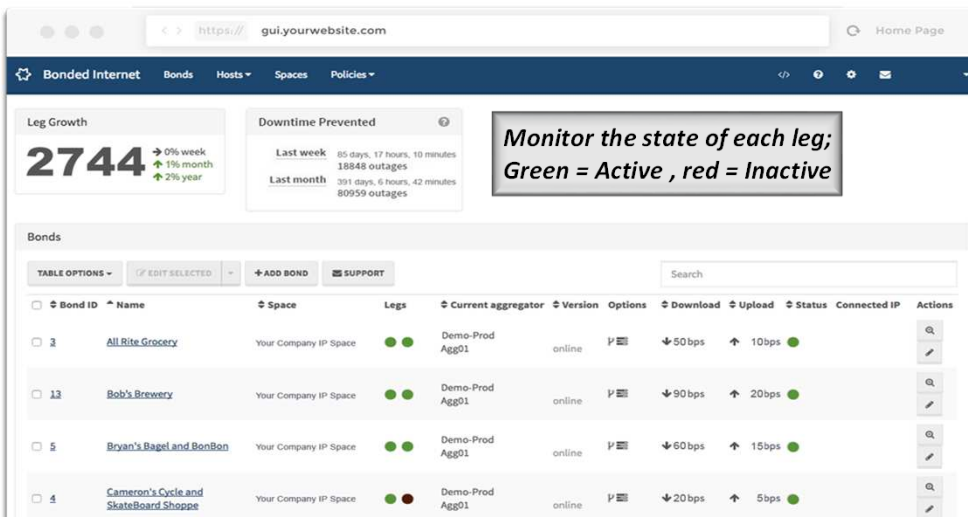
Your day can go from zero to sixty at the drop of a hat. You want to fix your firewall issue, but that email server is acting up. Then, the network goes down. How do you prioritize your day when network outages can't be dealt with until it's too late?

SD-WAN: See the Big Picture

SD-WAN network monitoring and management service gives you visibility into what really matters to enhance your network experience. We will proactively monitor and alert you of real-time network issues. We will troubleshoot and put out the network-related fire and we help you strategize to make the right network choices with confidence – for now and the future.

Be Productive in the Fast Lane

Let us expertly pinpoint issues in real-time. We take care of your network so you can focus on what matters – keeping your business productive.



TAG Express SD-WAN Benefits

PROACTIVE REPORTING OF REAL-TIME NETWORK ISSUES:

- Jitter
- Latency
- Packet-loss
- Bandwidth fluctuation
- Connection state changes
- Throughput/usage

PRODUCTIVITY

Solve network headaches that impede your business to get the most out of your network. Real-time traffic and WAN health configured to align with your business policies.

RETURN ON INVESTMENT

Cost-effective solutions designed to optimize IT investments.

PEACE OF MIND

Get alerted to issues before they become a problem.

VISIBILITY

Secure portal for viewing and managing your entire Wide Area Network (WAN).