



# Talari Networks

## Building Reliable Enterprise WANs: A New Choice

Talari Networks does for Enterprise Wide Area Networking what RAID did for storage – delivering a network with **30x – 100x bandwidth/\$, monthly WAN costs reduced by 40% - 90%, and with greater reliability than existing private WANs using Frame Relay or MPLS.**

In a carrier pricing environment where a price/performance factor of 2x (50%) is enormous, Talari brings Moore's Law and Internet economics to Enterprise WAN buyers for the first time in 15+ years. And a Talari solution does this incrementally and seamlessly on top of existing networks – no forklift upgrades required.

## Talari Networks Mission

Enterprise data services (e.g. Frame Relay, MPLS, ATM) are a combined \$25 Billion annual market, and the last bastion of high-margin, oligopoly carrier services. Meanwhile, broadband (e.g. DSL, Cable) has become widely available and highly competitive, offering more bandwidth than Frame Relay/MPLS connections at radically lower cost.

Talari Network's innovative **Adaptive Private Networking (APN) technology** pioneers a new class of product with a unique strategy to leverage VPN technology to deliver enterprise WANs. APN employs a **RAID-like approach** to the reliability and predictability issues associated with the Internet and other affordable shared IP networks, combining diverse sources of bandwidth to enable high-bandwidth WANs at **radically** lower cost while delivering true **business quality** "four nines" reliability.

We're doing for Enterprise WANs what RAID did for storage. Where RAID wrapped a layer of hardware and intelligent software around the Seagate PC hard disk, The intelligent software in Talari's appliance-based solution does something similar with multiple WAN connections - existing private WANs and high speed Internet connections (T3, OC3, Metro Ethernet, etc.) at data centers and large sites, as well as existing connections and any type of broadband Internet links for branch/smaller locations.

RAID leveraged that PC hard disk technology to revolutionize business storage cost, capacity and reliability. Talari's APN technology leverages the most powerful, ubiquitous, low cost communications network ever created – the public Internet – to deliver Enterprise WANs that are far higher bandwidth, far lower cost **and** with greater reliability than the best proprietary single service provider WANs available today.

## Problem Statement

IT departments face pressures to control costs while meeting increasing demands on the network. As applications' thirst for bandwidth ever increases, centralizing servers and services reduces some costs, but places increased pressure on network reliability and response. New services such as VoIP and videoconferencing only further increase this pressure on network reliability and predictability.

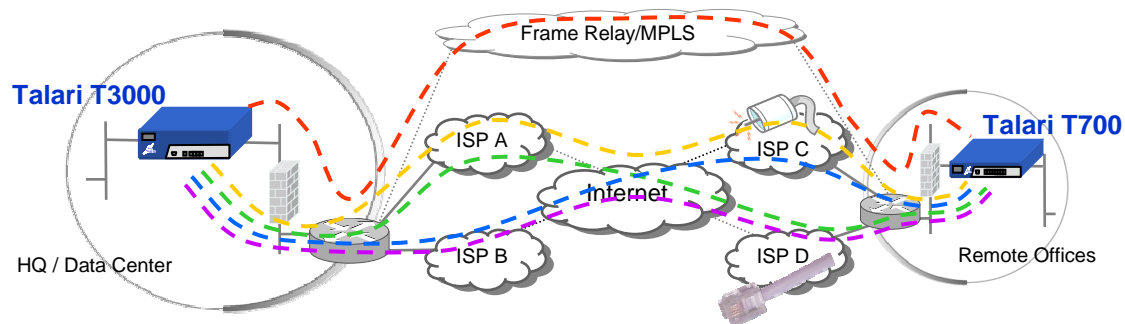
Yet while enterprise LAN bandwidth has grown by a factor of 1000x in the last dozen years, WAN bandwidth at most locations has grown by barely 10x, to ~1.5 Mbps. Buying more bandwidth is usually not a viable option, however, as the RBOC last mile monopoly, combined with the oligopoly of 2 ½ credible nationwide data service vendors in the U.S. (and similar monopolies/oligopolies in Europe/Asia) have kept the pricing of reliable enterprise data services such as Frame Relay and MPLS stubbornly high. In fact, per Mbps pricing has barely come down at all over the past 8-10 years, even as Moore's Law and

competition have delivered massive improvements in price/performance in almost all other areas of networking and IT. The cost/Mbps at a branch location for Frame Relay/MPLS is typically \$800 - \$2,000 a month. By contrast, the DSL or cable connectivity has a cost/Mbps of only \$10 - \$15/month. It is this two orders of magnitude, 100x difference in the cost of network bits that Talari technology exploits.

## **Talari Networks APN Value Proposition**

- **30x – 100x the bandwidth/dollar** compared to Frame Relay or MPLS
- **40% – 90% reduction** in monthly WAN costs
- **10x – 20x more bandwidth** to the remote offices
- **Higher reliability** and application predictability than MPLS or Frame Relay.

Talari Networks APN technology delivers value for **all** applications - not just repeated transfers of large files - while providing greater network availability, superior support for real-time traffic, and greater application performance predictability than today's solutions. And unlike service provider alternatives, which don't offer a fraction of the bandwidth/dollar benefits in the first place, the Talari solution can be deployed incrementally to augment existing WANs, with no hard cutovers or migration required.



## **Product and Technology**

Talari Networks APN equipment is a new kind of device for the enterprise WAN edge, deployed at both data centers and remote locations, leveraging existing private WANs and high speed Internet connections (T3, OC2, etc.) at data centers and larger sites, allowing customers to reliably combine multiple broadband circuits from different providers or to augment (or even replace) traditional WAN services at branch/remote locations. The net result is that broadband networks are adapted to be highly reliable, while preserving their radical cost and bandwidth advantages over traditional wide-area data services.

Talari's Adaptive Private Networking technology uses end-end algorithms to do dynamic, real-time, per-packet traffic engineering.

Talari's APN software – embedded in the Talari T3000 and T700 hardware appliances – combines a control layer similar to PVCs (Permanent Virtual Circuits) to provide alternate paths and information on end-to-end performance, RAID-like functions to adapt to the operating state of each network path between locations, and VoIP gateway-like abilities to adapt the network to support the needs of applications. This network-based solution supports all IP applications, no matter whether they are encrypted, pre-compressed, or simply not amenable to application-specific caching and compression tricks.

Unlike today's "WAN Optimization" industry, rather than try to optimize each application for the network, Talari optimizes the network fabric for **all** applications.

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