

WAN Virtualisation Adds Up for Accounting Firm Whiting & Partners, Increasing Bandwidth and Reliability to Support New Interactive Applications



Whiting & Partners

Whiting & Partners are a firm of general practice chartered accountants, the partners of which are predominantly members of the Institute of Chartered Accountants in England and Wales.

Challenge

Implement Virtual Desktop Infrastructure (VDI) and VoIP in an environment where the existing MPLS network has insufficient bandwidth and has historically proved to be unreliable.

Solution

Deploy WAN Virtualisation using Talari Adaptive Private Networking (APN) technology at head office and six remote offices.

Results

The Talari solution has enabled Whiting & Partners to cost-effectively provide the network reliability and flexibility it needs to deploy new services such as VDI and VoIP. On average, bandwidth at each site was increased by a factor of 5 and the cost per Mbps was cut in half.



www.talari.com

Founded in 1928, Whiting & Partners are a firm of general practice chartered accountants with 16 partners and around 130 staff, based in eight East Anglian market towns in the counties of Cambridgeshire, Norfolk, and Suffolk. The firm's traditional accountancy and tax return compliance work has now been expanded to include many specialties and niche services.

Whiting & Partners' data network has evolved over the years. A decade ago, each office operated autonomously. As the need for access to the email server and a central time recording system grew, the firm migrated to a point-to-point virtual private network (VPN) connecting each remote site to the head office. This was replaced in 2005 by a Multi-Protocol Label Switching (MPLS) network with a single DSL-based tail circuit connecting each site. The head office had a symmetrical 2 Mbps connection, while most of the remote offices had ADSL with upto 800kps upload and upto 8Mbps download, subject to line length and contention.

Challenge

When the MPLS network was first deployed, one third of the staff had access to email at the desktop. That had since grown to include all staff. Everyone had come to expect a response to email in a timely fashion. But the MPLS network, with no tail circuit SLA, was consistently unreliable, with sites sometimes going down for a week at a time. This was unacceptable for email users.

It also hampered the firm's plans to deploy next-generation services like virtual desktop infrastructure (VDI) and Voice over Internet Protocol (VoIP), which would demand greater reliability and bandwidth than the MPLS network could offer. VDI was key to Whiting & Partner's future. "We wanted to allow staff to be able to work from whatever office they were at, instead of having to travel to the one where the data they needed to work on resided."

Talari Solution

Chris Haydon, IT Manager with Whiting & Partners, searched for a solution that could deliver higher bandwidth with greater reliability. "We looked at multi-link point-to-point protocol (PPP), which would give us

more bandwidth and a bit more reliability because it ran across multiple links," says Haydon. "But it lacked carrier diversity. If you have a carrier-level outage, you lose all your links."

"This gives us complete carrier diversity and, with Talari, the resiliency that we were looking for."

Then Haydon was introduced to WAN Virtualisation and Adaptive Private Networking (APN) technology from Talari. APN routes data over the best, most reliable route, over multiple paths from diverse carriers. APN technology aggregates two or more network connections at each site and continuously monitors performance of every network path between locations. Measurements of loss, latency, and jitter are used to detect and respond in a sub-second timeframe to congestion, allowing the solution to make real-time traffic engineering decisions on a packet-by-packet basis.

Results

Haydon deployed a Talari Mercury T730 appliance at the head office in Bury St. Edmunds, Suffolk and Mercury T730s and T200s at the other six sites. The MPLS network is still in place and a separate DSL connection from another provider has been added at each site. "This gives us complete carrier diversity and, with Talari, the resiliency that we were looking for," says Haydon.

Most incoming traffic is routed over the MPLS network because of the available bandwidth. Since the MPLS only allows about 800kbps upload, however, outgoing traffic is typically directed by Talari over the DSL circuits, which provide around 2 Mbps. If the MPLS connection goes down, all traffic is instantly diverted over the DSL circuits. "I once mentioned to someone that their MPLS connection had been down for a week. Before Talari, if we lost connectivity there would be no emails or Internet for up to a week. They were oblivious to the fact; traffic was going over the secondary link using Talari," recalls Haydon.

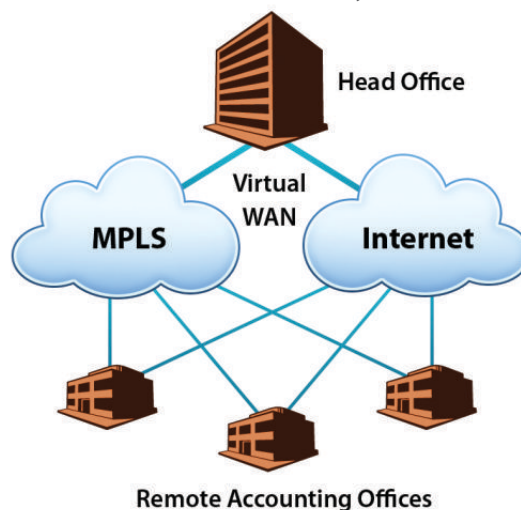
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Talari delivers the additional benefit of latency monitoring. After deploying Talari, Haydon noticed latency on the MPLS circuits occasionally topped 1500 milliseconds because the connections were getting full. "When latency begins to build up, the secondary links become more attractive and Talari starts pushing more traffic onto the DSL links to balance out traffic levels," says Haydon.

In anticipation of VDI and, eventually VoIP, Haydon has begun converting the MPLS circuits over to a new service from TalkTalk that will provide 10 Mbps Ethernet in the First Mile (EFM) to all of Whiting & Partners' office sites. Talari will provide resiliency in combination with these new circuits.

Once VDI and VoIP are deployed, Whiting & Partners will have the flexibility to open a new office much more easily with less cost. "Today we'd need a file server and fat client PCs. In the future, all we'll need is a dumb terminal on the desktop, an IP phone, a Talari T200, and some connectivity," says Haydon.

As VDI and VoIP become a reality, reliability becomes evermore critical. Haydon is investigating a 3G or WiMAX connection to the Talari for an added level of carrier diversity.



EssentialNET Devises a Solution

Chris Hayden discovered EssentialNET by stepping onto their Stand at IPEXpo in October 2009. He described his issues and problems and EssentialNET, as a Specialist Optimisation Practice, highlighted a number of Bandwidth Optimisation and Bandwidth Management technologies. Closer examination of the specific problems he was facing quickly ruled out WAN Optimization, but Talari and WAN Virtualization stood out as a real possibility. Chris needed to organise some additional circuits so that there were at least two links at the sites he wanted to evaluate and then we put the technology to the test. It passed with flying colours and resolved the issues and provided him with resilience at the same time. He

purchased boxes in phases as he provisioned diverse connections until he has ended up with a fully meshed multisite Talari managed WAN.

Kevin Penn, Managing Director of EssentialNET said "The problems that Chris was facing are unfortunately all too common, not only in far off places, but also in certain regions of the UK. Talari is the perfect solution and it adds value in scenarios where other technologies fall down". He went on to say "Talari is a real game-changer! By letting go of our misguided faith in large pipes and meaningless SLAs, we can get creative about how to build flexible WANs that are safe, fast and always on".

About Talari™ Networks

Talari Networks' WAN Virtualization solutions bring Internet economics to corporate WANs by transforming broadband and other affordable Internet links to deliver business-class reliability and performance predictability at consumer prices. Talari delivers a network with 30 to 100 times the bandwidth per dollar, ongoing WAN costs reduced by 40 to 90 percent, and greater reliability than existing corporate WANs. For more information, please visit www.talari.com.



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