



## **Zen Internet Case Study**

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## **TSG create a secure Wide Area Network with Zen's IP VPN**

### ***The Challenge***

Technology Services Group (TSG) provides IT solutions to small and medium sized businesses. Specialising in Business and Accounting software, TSG employ over 500 staff in 12 locations across the UK.

Between 2003 and 2005 TSG experienced rapid growth through continued acquisition, focusing on acquiring companies that offered immediate access to key areas across the UK. Each TSG location had an ADSL circuit providing internet access with on-site firewalls configured to create IPsec virtual tunnels over the internet in order to create a basic Virtual Private Network (VPN).

The IPsec VPNs offered a secure method for transferring critical information between a small number of sites with limited bandwidth, however these soon became unreliable and complex when additional sites were introduced to the network. Each IPsec VPN also traversed the public internet raising security concerns on inter-site traffic. As internet access was provided directly to each location, managing network security at each site became a challenge. This subsequently made company wide security policies difficult to implement.

When TSG expanded into Scotland in 2004, purchasing companies in Aberdeen, Edinburgh and Glasgow they took the opportunity to review their Wide Area Network requirements and contacted Zen to discuss possible solutions.

### ***The Solution***

To fully understand TSG's current issues and business goals Zen's Technical Consultants conducted a detailed business and technical analysis. Following careful planning of IP schematics and bandwidth requirements a solution was proposed to meet current requirements. This guaranteed that the network could also easily be scaled to incorporate TSG's rapidly growing network.

Due to the key requirements for scalability & security, Zen recommended that TSG upgrade their current IPsec infrastructure to a dedicated IP Virtual Private Network (IP VPN) solution. This leading edge Wide Area Networking (WAN) solution provided a secure virtual network dedicated to TSG within Zen's core infrastructure. This ensured the secure exchange of information between sites participating in TSG's IP VPN.

A dedicated Project Manager was assigned to the deployment and was responsible for the successful roll-out of the IP VPN solution. Technical and operational resources across Zen first built the IP VPN within Zen's network before installing 9 dedicated Ethernet and Access circuits and 3 ADSL circuits at 12 locations across the UK. The new circuits provided access to the central IP VPN allowing each site to securely route between each other without ever traversing the public Internet. Cisco routers were preconfigured by Zen's support teams to

meet the agreed specifications with the service extending to on-going management for any changes to network designs or requirements. This ensured relatively simple implementation at each site and provided immediate access to Zen's support teams for future equipment configuration changes.

Once each site was connected and able to securely share data in confidence, the next step was to provide Internet access into the IP VPN. A dedicated internet access port was allocated to the IP VPN providing one central point of internet access for the entire network of sites connected by the IP VPN. In order to secure the internet access two Fortigate 200 Unified Threat Management (UTM) firewall appliances were installed in High Availability, ensuring resilience in the event of firewall hardware failure.

A dedicated Co-location rack was provided enabling TSG to use centrally hosted services and a DMZ. Locating these servers upstream within the Zen network enabled TSG to reduce bandwidth requirements at its head office as key applications could now be accessed from Zen's core network. TSG was also able to benefit from Zen's resilient network infrastructure and save costs on physical Co-location of equipment.

Finally, a dedicated Network Management Server (NMS) was deployed by Zen providing 24/7 monitoring and alerting of the entire network and CPE. Secure access was provided to TSG including the option to generate a range of network reports on demand.

### ***The Benefits***

Implementation and timely delivery of the IP VPN solution vastly improved the security and performance of the network. Employees from all sites now had secure, reliable and fast access to all business critical information.

Zen's range of access technologies offered connectivity to suit the requirements of each location with ADSL installed at satellite offices and dedicated Ethernet and Access circuits with rigid SLA's at critical sites. Careful planning of circuit requirements ensured that data traversed the WAN quickly whilst eliminating previous issues with dropping VPN connections and circuit congestion.

TSG could now benefit from one central point for secure internet access. Instead of configuring security policies on firewalls located at each site TSG could now make security changes to the centrally hosted Fortigate UTM firewall that immediately impacted all 14 sites. The Fortigate UTM firewalls provided a multi-threat security platform offering network protection beyond that of traditional firewalls including Antivirus, IPS, Web Content Filtering and Antispam.

Adding new sites into the IP VPN was now much easier as no complex firewalling and VPN tunnelling was required at each new site. TSG are now able to connect additional sites within standard provisioning timeframes and these immediately have access to key company information.

David Office, Group IT Manager TSG, commented,

**“Our previous solution caused us quite a few issues in speed and reliability and new acquisitions meant that we had to re-think our WAN design. Zen worked closely with TSG to understand our requirements and proposed a solution that vastly improved our inter-site communications and security.**

**Strategic operational changes have required Zen to change the network design during and after deployment and Zen have incorporated these without any issues. Adding or removing sites is now much easier with no disruption to other operational sites within the group.**

**We found that Zen have been honest and professional throughout the relationship and the reliability and performance of the IP VPN has exceeded our expectations.”**