



The Company

Based at the heart of the UK's financial business district in The City of London, DXI Networks is a leading provider of convergence IT solutions to corporate customers specialising in the end-to-end integration and management of their IT networks.

Offering a range of management and application hosting services, tailored to the customers' demands, the company includes LAN and WAN management, business continuity, server management, IP telephony and digital security within its service portfolio.

Formed in 2001, DXI has grown rapidly both organically and through strategic acquisitions, and now employs a team of over 90 staff, supporting a network of 4 data centres, to ensure resilience and high speed connectivity for its 100+, blue chip client base.

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The company's world-class data centres provide co-location facilities and high-speed network bandwidth to ensure service continuity for its clients; a critical feature of DXI's offering as more companies take full advantage of Internet connectivity for all their communication needs. A feature that requires total fault tolerance as well as the highest levels of physical security.

Security and Resilience

Using the latest security and authentication systems including biometrics, key card and combination locks, backed up with 24 hour CCTV, DXI ensures that access to the secure environment at each of its data centres is rigorously restricted to authorised personnel. Equally Important, in an environment which sees huge amounts of corporate and personal data passing through the network, the company places the same emphasis on ensuring that the network itself is fully protected from hackers and data thieves by deploying an array of security technology, including IDS, firewalls and anti-virus solutions.

Guarantee of Service

Unlike most other managed hosting providers, DXI has also added a further layer of network integrity technology to help ensure system availability even under the most extreme levels of traffic connectivity, such as a distributed denial of service (DDoS) attack.

Andy Condliffe, DXI's security Architect explains the reasoning for this investment. "Many of our customers rely totally on their Internet connectivity to operate their businesses and entrust us with the hosting of their ecommerce Web sites. To these clients any downtime of their Internet connections can spell financial and corporate PR disaster."



DDoS Mitigation

"Whilst we have the capability to offer dynamic, variable bandwidth connectivity to cope with normal fluctuations in network traffic, all servers have a finite limit on the number of active connections they can handle, before performance begins to degrade or stop altogether, which is ultimately what a DDoS attack is intended to do."

After carefully researching the market for a DDoS solution that was up to the task and could offer the essential resilience required for integration within its fault tolerant, multi-location network environment, DXI decided to purchase a pair of Webscreen WS 1000 High Availability appliances. The decision was initially prompted by a request from one client that had come under attack at its previous hosting company and had suffered significant downtime during critical trading periods.

High Throughput Performance

Webscreen has no visible IP address of its own, which means unlike other DDoS solutions it is inherently immune to a DDoS attack itself. With the capability to handle connection speeds of up to 1Gb and monitoring up to 0.55M packets per second, the WS 1000 appliance can be positioned directly in line and in front of other firewall or IDS appliances to monitor the behaviour of all the network traffic trying to access the Web resources it is protecting.

DDoS attacks use large numbers of highjacked Computers, known as Botnets, to bombard the target Web site with bogus connections. The Webscreen software can distinguish between mechanistic Botnet traffic and normal human behaviour to dynamically block the attack, whilst keeping the connection open for customers and critical users.

Andy Condliffe continued "Clearly we are very cautious about introducing any new technology into the resilient network topology we have created, without rigorous testing and evaluation. Having a customer who specifically wanted a DDoS protected service gave us the opportunity to see how Webscreen coped in a high performance Environment, without risking the integrity of the whole network. The appliances have now been operating trouble free for around 12 months and have met all our success criteria, with no disruption to our client's service, giving us the confidence to bring several other high risk clients under the Webscreen protection."

The Future

Based on the success of the Webscreen deployment, DXI enhanced its portfolio of value added premium services it can offer all its clients. Andy Condliffe said "we created a dual network allowing clients to choose whether they want a full DDoS protected connection powered by Webscreen or not, clients' choice is based on the balance of risk in relation to their own operational requirements. With DDoS levels on the rise, and becoming more indiscriminate, we fully anticipate that increasing numbers of clients will opt for this additional level of guarantee to further enhance the 99.99% we already aspire to, setting us apart from our competitors."

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