Highlander

New storage infrastructure engineers big gains for Troup Bywaters + Anders

TROUP BYWATERS + ANDERS

Industry

Professional Services

Key challenges

- Aging storage solution causing performance issues
- Critical applications impacted
- Loss of user productivity

Solution

- Nimble Storage Hybrid Storage Array
- Upgraded core network switches
- Design and implementation

Business benefits

- 100+ man hours of lost productivity saved each week
- Eliminated service interruptions
- Significant energy savings
- Simplified management thanks to on-board AI

100+ man hours per week saved in lost employee productivity

Troup Bywaters + Anders (TB+A) is a high-performing partnership of consulting building services engineers. For over 60 years they have been commissioned to deliver a wide variety of public and private design projects. Passionate about service, they extend the spirit of partnership both inside and outside their business and adopt a 'sustainability-first' ethos, which has seen them become serial award-winners who constantly set new standards in architectural design.

TB+A is also recognised as one of the best at growing their people, and as such were one of the first companies globally to be awarded Investors in People Platinum. They pride themselves on creating a great place to work, and IT is a big part of how they enable their people to be productive and empowered in the workplace. When an element of their core infrastructure began to compromise the quality of service offered to their team, TB+A turned to long-time partner Highlander for a solution.

Company overview

Established in 1958, TB+A design and create unique internal spaces that blend comfort and function for occupiers, tenants, and building owners to bring their buildings to life. Located at 8 design studios across the UK, they employ 210 people and have an enviable client portfolio working on some of the country's most iconic landmarks.

The challenge

TB+A were beginning to experience regular performance degradation of key applications. Sometimes applications would simply lag for a few seconds, sometimes performance would be negatively impacted for hours. Initial diagnosis by the internal IT team revealed the SAN supporting their virtualised environment was struggling to deliver the necessary throughput demanded by their key applications.

Tim Sutton, IT Director at TB+A picks up the story. "The applications affected were business-critical, which created a direct impact on the business' ability to work. It was every application hosted in our VMware environment for which the SANs acted as

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the shared storage. This ranged from email to industry-standard applications we rely on." The regular episodes were contributing to a loss of productivity and a groundswell of user frustration.

TB+A's goal was to get the legacy SAN solution replaced as quickly as possible. With the prospect of new technology on the horizon, TB+A also had other criteria that would influence the final decision.

TB+A consider themselves to be a very environmentally conscious organisation. In replacing their SAN, a new solution would also have to demonstrate its green credentials. Likewise, simple management and low maintenance was high up the list of priorities.

"We're not generally very loyal to technology," explains Sutton. "Our view is to get the best fit for the job. Since we purchased the original SAN, the market had come a long way in terms of new brands and options for all-flash and hybrid storage. Ultimately, we were looking to achieve the best performance for our pound." With this in mind, TB+A approached Highlander to help come up with a solution.

The solution

Following extensive discussions, Highlander proposed a Nimble Storage solution. Nimble Storage has been at the forefront of hybrid and all-flash storage since the beginning of the market shift towards these technologies. Highlander believed that a hybrid array, which mixed flash storage for hot data and traditional disk for cooler data, would provide the combination of performance, stability, and economics that TB+A were looking for.

"We really liked the solution Highlander put forward. Nimble Storage was developing technology in a very thoughtful way, achieving performance but not at the risk of the data. Reliability for us was king," continues Sutton.

In particular, TB+A liked the practical innovation the Nimble Storage solution offered. "The Nimble solution had some very clever compression capabilities which meant an awful lot more data could be stored in a much smaller space, which made it a very efficient proposition. We also liked InfoSight - the on-board AI which would help diagnose and maintain the system," enthuses Sutton.

Highlander also proposed that the network fabric be upgraded with the new SAN. After looking at the existing infrastructure, there was scope to simply replace some of the modules on TB+A's existing core switches to enable a 10g connection with the SAN. This would further improve the performance possibilities. "This was a real win, as implementing a dedicated network for the SAN would have been considerably more expensive. It also meant the IT team didn't have to learn anything new to

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> Highlander actually listen to you and take your needs on-board. They're more interested in being a partner rather than just selling you something you need at a moment in time.

Tim Sutton, IT Director at TB+A

support it," comments Sutton.

Highlander did all the design work and then implemented the solution in tandem with the IT team at TB+A. This ensured there would be skills transfer as the solution came together. The project was delivered in a matter of days – two days of implementation followed by two days testing before going into production.

Business results and benefits

Full throttle performance

Throughput is most certainly not TB+A's bottleneck now. "We were getting performance improvements straight away. One of the first workloads we moved over was our fileserver as that was previously being impacted a lot. The moment it was back into production the service degradation we'd experienced vanished. We estimated that for every four hours of degradation we lost 30 minutes of work per person. Roll this up across a business of more than 200 people and we conservatively estimate we've saved 100+ man hours of lost productivity each week," continues Sutton.

Reduced energy usage

According to Sutton the new solution has helped "drop the power usage for the server room substantially – literally slashing consumption by an order of KWs. The Nimble solution takes next-to-nothing to run because it is so clever in how it offloads data to the traditional disk. It literally draws about the same amount of power as a desktop PC."

More efficient storage infrastructure

Data retention regulations surrounding TB+A's business is strict, ranging from 15 years to upwards of 35 years. Having economic long-term storage is therefore important. Choosing a hybrid array has enabled TB+A to perfectly blend flash and more economical spinning disk to satisfy these long-term requirements. Likewise, the sophisticated compression technology has enabled TB+A to dramatically shrink their backup window to no longer interfere with production hours.

Artificial Intelligence simplifies management

"Nimble is a set-and-forget solution which frees up my team's time for more important tasks. The AI that is built into the solution makes it easy to look after as it tells you exactly what's wrong if there's a problem and often remedies the issue before we even know there is one."

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Specialist solutions

- 🗄️ *Infrastructure*
- 🛡️ *Protection*
- ☁️ *Cloud*
- ➗ *ERP*
- 🖱️ *Workspace*
- ⚙️ *Services*

Storage with a smaller footprint

The original SANs took up 12U of rack space for less than 30TB of storage. In comparison, TB+A's Nimble Storage solution fits in a 2U rack with a minimum of 50TB of available storage with lots of headroom to expand.

Working with Highlander

> *They actually listen to you and take your needs on-board. They're more interested in being a partner rather than just selling you something you need at a moment in time. If they think something is not right for you or there's something better they speak up, which hasn't always been my experience. Finally, I like how they make sure they have the right technical people too. Not just people who've read the instruction manual, but people who have done stuff in real life!"* says Sutton.

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