

EXCeL LONDON

DataCore assures that the UK's largest conference venue, the ExCeL, is 'always-on':

Delivering enduring value over multiple generations; providing continuous availability to applications and data, over a ten year span.

CHALLENGE

The ExCeL (Exhibition Centre London) is one of the world's most eminent exhibitions and international convention centres and the leading UK showcase for hundreds of conferences, trade shows and world class events. Located next to London City Airport, over 3 million people a year visit the ExCeL and the Centre employs over 60 permanent staff who rely on a secure, always-on IT infrastructure to power critical business apps. These apps assure the smooth running and processing of large events - from visitor registrations and event management programmes to systems that manage the entire venue.

"The ExCeL hosts events continually throughout the year, so downtime has never been an option. We run two physically separated data centres for business continuity and disaster recovery and for the past ten years have successfully relied on DataCore's SANsymphony solution running in a replicated dual node configuration to present all data to our VMware enterprise cluster. Protecting our apps remains the most important function for IT." Paul Tuckey, IT Manager, ExCeL London.

SOLUTION

Rolling back, Simon Hartog, Head of Technology at trusted support partner Virtual IT, recalls the factors that led to the install of DataCore's SANsymphony. The ExCeL originally opened back in 2000 using what was then cutting edge servers and storage arrays. With major venue infrastructure expansions that followed and show visitor numbers rising exponentially, seven years down the line, the original hardware was still in place, albeit stretched, creaking and overly exceeding the manufacturers' recommended EOL. At that stage, the IT Team recognised that the required flexibility, reliability and stability of infrastructure could only be facilitated by a virtual infrastructure for servers and storage. Virtual IT embarked on a full consolidation and virtualisation programme of the entire estate using VMware's vSphere with DataCore as the back end storage platform. In the consultation and planning stage, the experts at Virtual IT advised ExCeL that essential to any virtual infrastructure project was firstly adoption of an underlying highly available shared storage infrastructure to supply the venue's needs when it came to workload migration, load balancing, fail-over and, in such a prominent public venue, disaster recovery.



The solution design was agreed and configured with a pricing model that looked far more favourable than much more expensive proposals received from elsewhere. Virtual IT helped with the install working alongside the internal IT team to migrate the old apps and services to the new platform. Offering a dual node configuration with synchronous replication, the mirrored active-active architecture remains identical across the two data centres. Running HP hardware, the SANsymphony software platform offered the Nexsan storage arrays as 'virtual disks' akin to virtual machines (VMs), speeding up I/O response and throughput using the inbuilt caching and empowering the VMware infrastructure.

ENDURING VALUE

Roll forward ten years and apart from the basic functions of virtualisation and synchronous mirroring with auto-failover first enjoyed by The ExCeL, ongoing enhancements to the SANsymphony platform means that it now integrates well-developed storage services, including performance improvements. As a long-term customer under support, The ExCeL has benefitted from no-cost upgrades with each generation of the Software-defined storage platform. Given the length of the install, Virtual IT are well placed to convey the usage benefits:

"DataCore has addressed our primary requirement of uninterrupted High Availability and Business Continuity for apps for over a decade and we have tested it on occasion throughout that period. This includes a few unplanned power outages as a result of nearby building works. In the outages, DataCore has never let us down – when one half of the mirror was powered down, the other half simply took over. DataCore seamlessly kicks in without manual intervention and starts to rebuild without effecting applications. The mirror automatically resynchronises and paths are restored in the background." Simon Hartog, Virtual IT.

With HA defined, Simon elaborates further on other functionality gained from the SANsymphony install. In a dynamically growing environment such as The ExCeL, the ability to both seamlessly scale and provision as and when required are high on his agenda. Before virtualising the storage layer, The ExCeL was limited by ageing hardware that could scale no further and was restricted from adding applications and growing data. Using DataCore's software-defined storage, the centre simply scales on demand. Provisioning new VMs to accommodate data growth is a straightforward process with logical wizard driven steps. With scalability defined, back in 2012, The ExCeL was comfortably able to cope with an additional 1.2 million visitors across a 6 week period as it became home to one of the London locations for the Olympics.

Simon concludes: "Our use case is pretty simple and remains so – ongoing stable usage of DataCore that has allowed us to cost effectively develop VM enterprise clusters using a shared backend with the surety that if a hazard hits, The ExCeL can weather any storm."

<http://www.virtualit.biz>
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