

Greater London Authority Case Study

Ready for 2012

As the Greater London Authority (GLA) approached a year with mayoral elections, significant growth in responsibilities for services and the Olympic Games, it experienced a significant increase in data volumes. The GLA's ability to recover from disaster effectively was an area of strategic significance. Working in partnership with Cristie Data, FalconStor and Nexsan, the GLA Technology Group upgraded its disaster-recovery systems with a virtualised storage infrastructure and disk-based backup and replication. The solution reduced recovery times from over three days to less than half a day. It also cut running costs and resource overheads, while giving the GLA the flexibility it needed to adapt to changing circumstances.

London's Biggest Year

2012 is London's big year. The mayoral elections were in May and the Olympics and Paralympics run throughout the summer. At the Greater London Authority (GLA), there's no room for error. If disaster strikes, the GLA has to be able to bounce back. A week before the 2008 mayoral elections, a burst water main in nearby Tooley Street cut off power to City Hall (and surrounding businesses), causing major disruption. Luckily power was restored before there was any impact on the elections. If things had gone seriously wrong, it would have taken the GLA at least three days to recover its data and get back to normal working. Data recovery took 3 days because the GLA's storage infrastructure was based on servers and storage from several suppliers, and involved a traditional tape-based backup process. Tape-based recovery is complex, expensive and slow, while the backup and recovery process for each supplier's storage and servers had to be managed separately.

The need for change grew more urgent as the GLA's responsibilities widened. The GLA Technology Group began to provide IT support for a number of services inherited from abolished quangos as well as for the Mayor's Office, the London Assembly, and the GLA's own staff. As 2012 approached and data volumes increased significantly, there was too much at stake to rely on the status quo.

A Partnership for Resilience

Before inviting tenders for a storage infrastructure that would enable the GLA to operate without disruption, the GLA Technology Group prepared an exacting brief. The solution had to be flexible and resilient, it had to meet all business continuity planning and normal operational requirements and above all, work within tight budget constraints showing an overall positive return on investment within a set number of years. "We knew what the solution had to do, but we had an open mind about how we would achieve it," says David Munn, Head of GLA Information Technology. "With off-the-peg solutions costing around £1.5m, we had to find something much more cost-

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Challenges

- Inadquate disaster recovery
- Company growth of a third had resulted in a significant increase in data
- Numerous servers and storage from several suppliers meant that any back-up or recovery, had to be managed separately
- Tape-based backup process was complex, expensive and slow

Solution

- Nexsan E60 storage
- FalconStor Network Storage Server (NNS) and RecoverTracTM

Benefits

- Reduced data recovery times from 3 days to half a day
- Cut running costs and resource overheads; savings of £90,000 per year
- A new virtualised storage environment which is replicated at Transport for London's data centre in Woking
- More energy efficient; uses 80% less energy and saves on rack space



effective if we were to make a convincing business case.” To ensure a level playing field, the team invited potential suppliers to an open clarifications meeting ahead of tender submission. Of the tenders that followed, the joint FalconStor and Nexsan solution proposed by Cristie Data was a near-perfect fit in terms of performance and cost. It also passed the probing tests of due diligence. The solution was right because Cristie took the time to understand what the GLA needed. It then used its independence to pick the most appropriate solution from its portfolio.

Disaster Recovery in Just Four Hours

To give the GLA the flexibility and the cost savings it needed, Cristie proposed a solution based on FalconStor technology and Nexsan E60 storage. FalconStor® Network Storage Server (NSS) virtualises the GLA’s storage environment and replicates it across a shared metropolitan area network to Transport for London’s data centre in Woking. The replicated environment at Woking uses Nexsan storage. Virtualisation means that a disparate storage network can be managed from a single interface. If there’s a disaster, FalconStor’s RecoverTrac™ application automates recovery of the entire IT environment within hours. “In tests, the GLA cut recovery time to five hours. The target is to be up and running within four hours,” stated Keith Beddard, the GLA’s Technical Architect. “With the Cristie/FalconStor/Nexsan solution, we’re as close as we can get to having a big red button that says ‘in case of emergency, press’,” says David Munn. “I sleep easier at night knowing that we can get our services back within half a day.”

Cutting Costs and Energy Use

The FalconStor solution saves the GLA time and helps it run lean. IT administrative processes have been streamlined and tape back-ups are a thing of the past. “The FalconStor infrastructure means we can add more cost-effective storage at a time of growth,” says David. “Even though we’ve grown by a third at the GLA, we won’t have to invest in another complex SAN [storage area network]”. Bal Garcha, GLA Programme Manager adds: “Another good reason for choosing Cristie is the cost-effectiveness of its licensing and support model. This solves the GLA’s future budgeting problems by giving us certainty about costs at a time when new responsibilities are adding terabytes of extra data.”

There are environmental benefits too. As well as offering better performance, the GLA’s high-density Nexsan E60 storage units are cheaper and more efficient. They consume up to 80% less energy, and their huge capacity saves rack space. As a result, the GLA now stores all 160TB of its replicated data in just 6U (10.5 inches) of rack space at our DR site. In total, the new

infrastructure saves the GLA around £90,000 a year. Payback comes within four years. If disaster does strike, and the system has to be invoked for real, the project pays for itself instantly. The costs of downtime far outweigh the costs of the solution.

One of the Best Working Relationships

With the Cristie solution in place, the GLA has much more flexibility. If it chooses, it can switch data storage from Woking to the cloud or elsewhere. “This is a good position to be in,” says David. “We now have opportunities that were not open to us before. Since there’s an established shared service culture here at the GLA, we could perhaps offer hosted services to other administrative organisations.” Taking the GLA to this successful outcome was the result of teamwork.

“Cristie listened to the requirements and objectives of the GLA and ensured that we fully understood what they were looking to achieve. As an independent solutions provider we are able to choose the right solution from our portfolio to meet and exceed these requirements. It has been an extremely positive experience working with the team at the GLA” said Ryan Smith, Sales Director, Cristie Data Ltd. “We’ve had one of the best working relationships with Cristie,” says Bal. “There’s no doubt about that. They went over and above what was contracted and became part of a GLA team. As a result our engineers were motivated to learn more about the product and got to know it really well. Within the rules of the procurement processes, we hope to continue the relationship on future projects.”

• About Nexsan

Nexsan is a global leader in storage, back up and data management solutions that are focused on seamlessly and securely enabling a connected workforce.. www.nexsan.com

• About FalconStor

FalconStor® Software, Inc. is a leading software-defined storage company offering a converged data services software platform that is hardware agnostic. www.falconstor.com

• About Cristie Data

Cristie Data have been IT infrastructure and data management specialists for over 40 years. We take a consultative and platform agnostic approach to any customer project and advise on solutions that are best aligned to your businesses. www.cristie.co.uk