Greater London Authority Case Study

Delivering value with consolidated infrastructure and simplified management

The Greater London Authority (GLA) is the body responsible for making London a better place for everyone who lives, works or visits the city.

In recent years the GLA's IT team has adopted a number of public cloud technologies, however it still has two separately located private data centres. These facilities house active-active virtualised infrastructure that collects, stores and analyses data that helps the GLA improve the way services are delivered to millions of people.

Turning this private infrastructure into a single, proactive architecture for compute, networking and storage would provide the GLA with an IT environment that was less complex and more reactive to changing requirements, a key objective of its ongoing digital transformation. With the rise in ransomware attacks, the authority also wanted to update its approach to data protection and improve the speed at which it could patch potential vulnerabilities.

The cost to move this infrastructure to public cloud would have been prohibitive, so Cristie Data was chosen to help the GLA find an alternative solution that would deliver real value for money at a time when it was also grappling with the Covid-19 pandemic.

New private infrastructure with a public cloud feel

Cristie Data implemented HPE Nimble Storage dHCI as the solution – dHCI stands for Disaggregated Hyperconverged Infrastructure. As an HPE Gold Partner and the leading solution provider for HPE dHCI in Europe, Cristie Data knew it was the answer to the issues that the GLA faced. The flexible, automated architecture delivers six nines data availability and allows compute and storage resources to be scaled independently, so it would help the GLA react quickly to changing business needs.

The solution consists of a fully converged stack in each data centre, with asynchronous replication and capacity for up to 200TB. An HPE Apollo backup server is deployed at each site, providing high capacity, high-density storage and multiple recovery points. This gives the GLA an identical technology stack in both data centres, with one point of management for each stack, one set of central HPE support, and, coupled with the integral HPE InfoSight predictive analytics platform, complete visibility of the health of the entire infrastructure.

GREATER LONDON AUTHORITY

Challenges

- Too many technologies, vendors and support models in use
- Complex, costly and time-consuming to manage
- Lack of visibility of IT estate
- Lack of robust data backup

Solution

- HPE Nimble dHCI Storage and Arcserve UDP

Benefits

- £millions in cost savings v public cloud
- 60% reduction in infrastructure vendors
- 85% reduction in points of management
- 10x improvement in storage performance
- 99.9999% service availability
- Recovery Point improvement from one day to one hour

The move to a consolidated platform with centralised management and oversight meant freelance IT staff brought in during the pandemic could be put to good use immediately, helping with other aspects of the move of all 800 GLA permanent staff to remote working.

Tom Jackson, Project Manager for the GLA, says, "It made it easy because the temporary staffers didn't have to spend time managing complex infrastructure so it didn't hold back any other projects we needed them to work on."

The solution was installed during the initial government restrictions, with a specialist team from Cristie Data working on site, under lockdown guidance, to migrate everything to the new environment. Using the dHCI deployment wizard Cristie Data were able to de-risk the chance of errors during deployment and the migration was complete within a couple of hours.

Laurie Robinson, the senior engineer on the project, explains, "We weren't expecting everything to go smoothly, you wouldn't in a pandemic, but there was absolutely no disruption to any of our end users."

Everything - compute, SAN storage and network - was brought together in one move. The addition of Arcserve Unified Data Protection provides a backup solution that integrates well with HPE Nimble dHCI and provides the extra layer of data protection the GLA needs at a time when public sector organisations are at risk from ransomware attacks.

Significant cost savings

This project went through a competitive procurement exercise and best value had to be demonstrated before it was approved.

"We had to explain why we wanted to invest this capital in this way, when our strategy is to move to the cloud," says Tom Jackson. "But if we had just lifted and shifted

all this to public cloud we estimate it would have cost us over a million pounds a year, so the savings in revenue alone were huge."

In addition to avoiding this potential recurring outlay, the solution delivered by Cristie Data will actually pay for itself as a result of the savings made on annual maintenance costs alone over the next five years.

The consolidation of the infrastructure has also been significant:

· Compute reduced from 30 servers to 18

· Infrastructure reduced from three racks to half a rack

· Points of management reduced from 15 to two

The VMware, the HPE hosts, the Nimble storage and the verified switching has been brought together in one solution.

"We're really, really impressed with it," says Laurie Robinson. "We have some very high-end compute requirements and huge file servers but we can throw anything at it. The performance is off the scale. It's gold standard."

A solution for the long term

This wasn't just about a storage issue, it was about a bigger and better long-term infrastructure strategy for GLA – delivering a single, proactive architecture for compute, SAN networking and storage.

"Cristie Data has given us a cloud-like experience in our own data centres, on a familiar technology, in a way that has significantly reduced the demand on our IT resource and saved us a lot of money," says Tom Jackson.

The GLA also has a reliable backup solution that allows deleted files, failed virtual machines, or the whole estate, to be restored in seconds, from a single dashboard with only a few clicks.

The work that Cristie Data did to understand the GLA environment and deliver a long-term solution that was focused on value as well as performance is clear.

"They have great technical knowledge and really understand our environment," explains Tom Jackson. "It feels like a real partnership and gives us great confidence for the future."

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**