

Royal Albert Hall Case Study

A complete compute, storage and network solution

The Royal Albert Hall is one of London's most historic and iconic venues. Since it opened its doors in 1871, many of the world's most famous singers, musicians, actors and artists have graced its stage.

As a registered charity, The Royal Albert Hall must account for every penny it spends.

At the beginning of 2020, before the Covid-19 pandemic took hold, budget for the first stage of a refresh of the Hall's on-premise storage infrastructure had been approved. This was to be followed by a separate project to upgrade the compute resource in the subsequent year. However, as a result of their engagement of Cristie Data, the Hall was able to adapt the project to deliver an upgrade of the entire virtualisation stack, providing better value for money, improved performance and simplified management, all in one go.

Working together to understand the issues

Initially, The Royal Albert Hall sought to upgrade its ageing storage infrastructure, which was beginning to struggle with the ever-increasing demands of the business. As a long-standing customer and advocate of Nimble, it approached HPE to recommend a partner to engage with. HPE proposed Gold Hybrid IT Partner Cristie Data, who then worked openly and collaboratively with the in-house team on the technical and commercial aspects.

Crispin Gray, Head of Information Systems for The Royal Albert Hall, explains, "As a charity we must ensure we obtain value for money at all times, whilst delivering the best possible performance for our staff and customers. We really appreciated the transparency and the support we had from both Cristie Data and HPE throughout this project."

At the beginning of the engagement, Cristie Data's consultants spent time conducting a methodical deep dive into every aspect of the Hall's infrastructure to identify where potential bottlenecks were and what improvements could be made.

Jonathan Sellers, Systems Engineer for the Royal Albert Hall, says, "It was very impressive. Cristie Data gave us a detailed report on the state of play of the whole of our estate and we bounced around different options with them, agreeing a solution and design that would meet all our objectives. Their technical knowledge was great and they got us to exactly where we wanted to be."



Royal Albert Hall

Challenges:

- Storage nearing end of life
- Performance issues with key systems
- Too much administration for IT staff
- Need to improve monitoring of key systems

Solution

- All flash HPE Nimble Storage dHCI

Benefits:

- One consolidated solution for four issues
- 10x improvement in storage performance
- One set of support
- Simplified infrastructure management
- Improved reporting systems
- Full automation of repetitive tasks



A compelling solution in HPE Nimble Storage dHCI

Cristie Data recommended The Royal Albert Hall move to HPE Nimble Storage disaggregated hyperconverged infrastructure or dHCI. HPE Nimble Storage dHCI offers a single infrastructure stack that combines virtualisation and cloud infrastructure. It would deliver improved iSCSI performance and resiliency, along with the ability to independently scale compute and storage, addressing all the issues in one package.

The wrapper around the dHCI solution was also very attractive. The single source of support from HPE and the addition of the InfoSight predictive analytics platform made it into what Jonathan describes as “a compelling offer.”

Following a successful Proof of Concept and shortly before the nationwide lockdown took hold, the project was approved, which meant the new platform would have to be installed in less than ideal circumstances.

“It was difficult because we were all trying to understand the rules on what was and wasn’t possible but everyone was very flexible,” Jonathan Sellers explains.

Despite these challenges, the Cristie Data engineers were able to set up the hardware on site, following social distancing rules, and get the platform up and running.

The dHCI solution was installed side-by-side with the Hall’s existing infrastructure and key systems were carefully migrated with no downtime. As one of the most technically experienced HPE dHCI partners in Europe, Cristie Data was able to tailor the installation to the exact requirements. Within a week The Royal Albert Hall IT team were able to start the migration to the new dHCI platform with the Cristie Data team on hand to answer any questions they had.

Fast and resilient storage

The Hall did not need to wait long for the benefits to become clear of the new super-fast storage. Almost immediately, there were improvements in the data warehousing systems. The Business Intelligence team was completing data load and manipulation tasks in a fraction of the time they had taken previously.

The connectivity upgrade that resulted from the implementation of dHCI moved the Hall from a 1GB to a 10GB iSCSI SAN, giving a 10x increase in throughput.

The solution has given The Royal Albert Hall the next generation hardware it needs to support its critical applications.

“Our adoption of cloud technologies has helped reduce the rate at which the volume of on-premise storage grows. However our challenge now is to make sure that our on-premise storage is as fast and as resilient as possible,” says Crispin Gray. “With the all-flash dHCI solution from Cristie Data, we’re giving all our applications the fastest possible storage, all of the time.”

Whilst the existing Nimble platform had been performing well, the move from an hybrid array to all flash has reduced storage latency to an average of less than one millisecond, with benefits to both staff and customers expected.

Jonathan Sellers adds, “It’s been an all-round improvement in performance. The VMware hosts are better, the iSCSI switches are better and the storage is better. We were expecting significant performance improvements but were surprised just how significant they were.”

Value from remaining on-premise

In line with many other organisations, the Royal Albert Hall has a cloud first strategy. However, there remains a need to provide the best possible performance for systems that are not yet ready to move to the cloud.

Crispin Gray says, “By upgrading the virtualisation stack with a dHCI solution we’ve been able to ensure the best possible performance whilst ensuring the charity gets the best possible value for money. Credit has to go to Cristie Data and HPE for their combined effort in helping us achieve this.”

The fact that Cristie Data is HPE’s lead delivery partner for dHCI solutions in Europe meant it could negotiate additional benefits for the Hall, such as improved commercial terms and a longer support contract.

Before implementing HPE Nimble Storage dHCI, the Royal Albert Hall was using a number of different suppliers across the stack, each with different support arrangements. “Now we’ve got a single stack and a really strong relationship with Cristie Data and HPE, we feel fully supported and we have a solution that we can trust for the years to come,” says Jonathan Sellers.

The fact that this project was delivered at a time when the Royal Albert Hall was forced to close its doors due to the Covid pandemic makes it an even more impressive achievement.

“Completing an infrastructure project such as this during a national lockdown could have been challenging to say the least,” Crispin Gray reflects. “The Cristie Data team worked flexibly, quickly and professionally throughout. We were able to delegate tasks to them with confidence, allowing our team to focus on supporting our user base on the accelerated adoption of the tools and systems they would need to adopt new remote working arrangements.”

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