

# Imperial College Healthcare NHS Trust Chooses Tintri VMstore™ to Fulfill Virtualization Strategy

VMstore



## Imperial College Healthcare NHS Trust

Imperial College Healthcare NHS is one of the largest NHS trusts in England. It was formed in 2007 by the merger of Hammersmith Hospitals NHS Trust and St Mary's NHS Trust with Imperial College London Faculty of Medicine. It is one of four major trauma centers in London, managing five hospitals in the capital, employing close to 10,000 people and treating more than a million patients each year. The trust has a rich heritage and an ambitious vision, as one of the UK's leading hospitals it is committed to delivering quality care to its patients.

## The Challenge: Existing Storage Is Inadequate for Virtualization

Technology has a fundamental role to play in supporting the NHS. The Trust had embarked on the process of virtualizing its server infrastructure, but its enterprise SAN storage was struggling to provide the required performance and capacity. Management time was also placing a heavy burden on the IT team as staff were constantly tuning storage to get the best input and output (IOPS) and it was difficult to pinpoint any latency and bottleneck issues. In addition, the introduction of virtualization meant the IT team were expected to re-identify and retune per virtual machine (VM). With close to 1,500 VMs, this represented a huge resource overhead.

## The Solution: Tintri VMstore

The Trust began looking for an alternative storage solution that would be capable of matching the performance, management, and capacity requirements of a virtualized environment. After considering a number of alternatives, the institution opted for VMstore, and purchased the solution without the need of running a proof-of-concept. "We committed due to the pressures on existing storage and confidence in the VMstore technology along with its performance and implementation time," said Yusuf Mangera, technical architect at the Imperial College Healthcare.

The Trust bought three VMstore systems with a five-year support and maintenance contract. "Implementation took about an hour to get the appliances installed and into production. Migration from the centralized SANs to the VMstore appliances took a week at most," Mangera revealed. "We put a VMstore in each of our three data centers to distribute our virtual environments."

"The results have been very impressive. We operate twenty-four hours a day and there is a huge amount of pressure from an administration point of view in terms of troubleshooting, managing, tweaking, and tuning, but with VMstore that's all automatically done for us. We haven't had to look into any performance-related issues for the last three and a half years. VMstore just works to the point where people have forgotten that the appliances even exist."

VMstore has helped the Trust to improve the efficiency of its staff without adding headcount by virtually eliminating the amount of time spent managing storage issues. In addition, by moving all its VMware and Hyper-V storage requirements to VMstore, the Trust has been able to reallocate more of its SAN storage resources to focus on physical servers, file services, and NAS environments.

## The Results: Simplified Administration, Improved Forecasting, Better Performance

The Trust was looking for a storage environment that could provide the performance and capacity required to support its virtualized infrastructure. The existing SAN storage was cumbersome and required extensive management resource. Mangera said: "The key feature in

## Challenges

- Existing SAN unable to support virtualization
- Hard to pinpoint latency and bottleneck issues

## Solution

- Tintri VMstore

## Results

- Minimal administration required
- Staff have more time to focus on newer projects
- No performance and capacity issues
- No downtime

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Intelligent Infrastructure

terms of the VMstore appliances was the reduced amount of administration required from when we plugged them in and migrated. VMstore works in the background without anyone having to do anything.”

VMstore has completely automated storage management reducing the amount of time and resources needed. With the previous SAN environment, staff were identifying and tuning each VM. This time is now spent driving business value and staff are able to deal with newer projects instead of spending up to 40% of their time dealing with performance related queries.

“That 40% has gone down to zero with environments that run on VMstore. This has been a huge benefit and we don’t have any performance-related issues we need to deal with,” Mangerera said.

VMstore has also made the case for the technology even more compelling with SyncVM, analytics, and machine learning. This makes it easier to place VMs where they are best suited for performance. “In terms of forecasting our growth and trends, analytics is immensely valuable,” Mangerera revealed.

VMstore’s introduction of replication, disaster recovery (DR), and high-availability features fits perfectly with the Trust’s new updated DR strategy. “As a hospital and major trauma center, it is vital that we have a highly available environment in order to deliver our services as a healthcare organization as well as a Major Trauma Center,” Mangerera stated.

Since deploying VMstore, the Trust has experienced no downtime. “We have been running for three and a half years non-stop without any downtime,” Mangerera said. “I would absolutely recommend VMstore to other people.”

**“The key feature in terms of the VMstore appliances was the reduced amount of administration required from when we plugged them in and migrated. VMstore works in the background without anyone having to do anything.”**

*Yusuf Mangerera, Technical Architect, Imperial College Healthcare*

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