Cliniques universitaires SAINT-LUC UCL BRUXELLES

Client
Saint-Luc University Hospital

Industry
Healthcare

Challenges
Address the explosive growth in the volume of data by implement a new storage solution and migrate existing data with minimal disruption.

Solution
A tiered architecture based on a mix of 5500, 5800 and 6800 OceanStor V3 systems and incorporating a HyperMetro gateway-free active-active array.

Benefits
- Faster access to data, speeding up applications and improving patient care
- Reduced management costs making it cheaper to run
- Improved redundancy ensuring any downtime is kept to an absolute minimum
- Future proofed as the modular design of the system makes it easy to grow

Prodata Systems and Huawei help manage Saint-Luc University Hospital's explosive growth in data

With volumes of medical data growing exponentially every year, Brussels-based Saint-Luc University hospital needed to find a storage solution that would stop this becoming a major threat for patient care.

Background

With a capacity of about 1,000 beds, Saint-Luc University hospital in Brussels is one of the top three in Belgium. It employs 5,400 personnel although the number of people on-site on any one day rises nearer to 10,000 when students, patients and visiting families are included. It was opened in 1976 and has been responsible for ground-breaking medical research in fields such as living donor liver transplant.

As with any modern acute hospital, Saint-Luc's IT system is critical to its day-to-day operation. Open all day, every day, it is reliant on more than 1,500 software applications (400 of which are directly related to patient care) to support its clinical teams in coping with about 75,000 emergency admissions every year.

Data challenges

Over the last few years technological developments have begun to put an increasing strain on the hospital's IT resources. For example, improvements in the resolution of X-Rays in the Radiology department have meant that larger, higher quality images need to be stored. *Jacques Rossler*, CIO, Saint-Luc University hospital explains:

"New developments in the applications we use along with the increasing demands of users have caused an explosion in the amount of data we are handling. Our ability to provide high levels of patient care relies on our doctors and nurses being able to access information instantaneously but this level of data growth was compromising our ability to provide this level of service."

With data growth rates increasing by 60 to 70 percent every year, Saint-Luc decided to develop a strategy that covered the storage, retention and back-up of data to address the problem and help it cope with future demands. This also included identifying a solution that could evolve to meet the changing performance requirements of new applications.

"We needed a data storage solution that would not only provide very low levels of latency but could process extremely high levels of data every second. It also needed to have a high level of redundancy to minimise downtime if there was a problem."

Solution

A range of responses were received but the one that really stood out was from ICT integrator Prodata. Based on Huawei's OceanStor storage platform combined with a CommVault solution, it met all of the hospital's very specific technical and functional requirements and, as an added bonus, did so at a very attractive price.

"In proposing a Huawei-based solution, Prodata showed us that they clearly understood our needs in terms of scalability, performance and integration. It more than meets our requirement for a system that can handle several types of data load including very low latency to support our current environment and the future introduction of our new electronic medical records database."

Huawei's OceanStor platform is a next-generation unified storage product specifically designed for enterprise-class applications. It uses a unique operating system across the controllers, a state-of-the-art high available architecture, a wide set of SSDs and a suite of intelligent software for easy management to deliver industry-leading functionality, performance, efficiency, reliability, and ease-of-use.

"Choosing a Huawei solution was not an easy decision as the company wasn't yet well known in Europe as a storage vendor. However, we quickly found them to be very helpful and trustworthy leaving us with the impression of a very customer service-oriented company that really wanted to help us achieve our goals. In collaboration with Prodata, we think we have found a winning combination which we will definitely consider for future projects."

Olivier Jeuniau, Head of IT Infrastructure,
Saint-Luc University Hospital

In addition, OceanStor's HyperMetro feature provides total peace-of-mind by enabling the creation of an end-to-end, active-active layout bridging database clusters, transmission equipment, networking, and other elements. This makes sure that should one of the two data centres fail services will automatically switch to the other one without the user noticing any break in service.

Benefits

As part of its long-term IT strategy, Saint-Luc will become the first hospital in the world to implement the French language version of a worldwide leading Electronic Medical Record system. This will streamline the process of patient handling throughout the different stages of patient care. Huawei's OceanStor solution will help make sure this is a success by providing the performance and sustainable growth in capacity that will be needed over the next few years.

The impact of the new system has already been felt across the hospital:

"When we first migrated the system, we expected users to feel a bit of a difference because the old system was relatively slow. However, the feedback we have received has shown that file access is now twice as fast, which is making a real difference to the end-user experience."

Although at first migration of all the non-medical personal and shared files to the new system was seen as a huge challenge, in reality, it was achieved with minimum down time. In total, more than 28 million files with a capacity of several terabytes were moved with very little impact being felt by staff.

From a technical perspective, the system reduces the number of disks, power consumption, and cabinet footprint by over 75 percent as well as offering 99.9999 percent availability so minimising service downtime. And with only one console needed to look after the whole system the hospital has been able to greatly reduce its TCO (Total Cost of Ownership). It can also now add and configure controllers as needed, so operators do not have to worry about performance degradation as systems could be seamlessly expanded in the future.

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