Case Study

Chesterfield Royal Hospital

Solution

- **Nutanix Cloud Platform**
- **Prism management plane**
- **Nutanix AHV and VMware hypervisors**

Applications

- **Medway Electronic Patient Records System**
- **Specialist healthcare applications**
- **VMware Horizon**
- **Windows-based back-office servers**

Nutanix Enables Forward Thinking Hospital to Put Patients First.

Chesterfield Royal continues to extend and enhance patient services while preparing for a hybrid cloud future with Nutanix Cloud Platform.

In recent years Chesterfield Royal Hospital has faced many challenges but, thanks to Nutanix, keeping pace with demand for the latest in IT technologies hasn't been one of them. Even during the pandemic, the hospital's secure, highly scalable and easy to manage Nutanix Cloud has enabled it to extend and enhance its electronic patient records systems and roll out other new services to the benefit of patients and staff alike, as well as prepare for a hybrid cloud approach to IT moving forward.

"Nutanix prides itself on making IT infrastructure invisible, but it's not until you start pushing it that you realise exactly what that means. Regardless of the demands we throw at it, we simply don't have to worry whether our Nutanix infrastructure can cope. It just works, plus it's a doddle to manage and scales quickly to do whatever we want, when we want."

Ian Hazel, Director of ICT & Infrastructure, Chesterfield Royal Hospital

Challenge

More than four years have passed since the Chesterfield Royal Hospital replaced its struggling legacy 3-tier server infrastructure with a Nutanix Cloud, but that journey is far from over. Demand for patient services has continued to grow and the hospital continues to extend, modify and enhance its infrastructure to support new applications, deliver better patient outcomes and cope with the unexpected - not least the COVID-19 pandemic.

"I don't know how we would have got through the last few years without Nutanix," commented Ian Hazel, Director of ICT & Infrastructure, Chesterfield Royal Hospital. "We've gone from having to think about the infrastructure all the time to focusing on deliverables to meet the needs of our patients and the clinicians who treat them. Moreover, it's given us the confidence to plan ahead to further improve our services and work towards a better future. A future in which we expect Nutanix to continue to play a major role."

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Solution

With the assistance of specialist Nutanix partner COOLSPIRiT, the original 2017 deployment at Chesterfield Royal Hospital resulted in the installation of a Nutanix Cloud cluster in its main data centre and another at a separate location for backup and disaster recovery. Since then, the DR site has been reconfigured to allow for live workload balancing and additional storage nodes added to the primary cluster to cope with growth.

"To expand our legacy infrastructure to support any new application would have taken weeks if not months and been a real headache," commented Hazel. "With Nutanix it's simply a matter of sliding more nodes into the rack and 'voila' the extra resources are just there and ready to use, leaving us to concentrate on getting the most out of the apps. It really is that simple."

IT's all Nutanix now.

The DR site continues to be used for load balancing with the number of VMs supported by the Nutanix Cloud having grown considerably, from 280 four years ago to over 400 today. Moreover, while the original deployment involved the use of both VMware and Nutanix AHV hypervisors, Hazel and the team have since migrated the majority of VMs to AHV.

"As a publicly funded organisation we have to deliver value for money. Switching to AHV has saved a lot in terms of licensing and done so without any loss of performance or functionality plus real benefits from being able to manage physical and virtual resources from just the one interface."

Ian Hazel, Director of ICT & Infrastructure, Chesterfield Royal Hospital

The one exception is a new Virtual Desktop Infrastructure (VDI) platform, deployed at the start of the pandemic to allow for a rapid escalation in demand for remote working. For this the hospital opted to expand its use of VMware Horizon View and the VMware hypervisor. However, thanks to the hypervisor neutral architecture of the Nutanix Cloud software, this application has been hosted on yet another Nutanix cluster specifically sourced for the purpose.

Benefits

- **100% uptime since Nutanix migration**

- **Enhanced agility and on-demand scalability to meet demand growth and rollout of new apps**

- **Reduced costs from migration to licence-free AHV Hypervisor**

- **Reduced management overheads through centralised management of physical and virtual resources from a single interface**

- **Cloud-native ready infrastructure to accommodate future plans for a hybrid approach to IT**

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Customer Outcomes

Since migrating its infrastructure to Nutanix there have been no system outages or downtime of any kind and Hazel and the team are more than satisfied with the level of support provided. Indeed, buoyed by the success of the project, the Royal Chesterfield recently signed up to continued support from Nutanix and specialist health service partner COOLSPIRiT.

Along with back-office Windows servers, the primary workload continues to be the hospital-wide Medway Electronic Patient Record (EPR) system. Now supporting over 2,200 users and continuing to grow, the hospital recently added a number of new modules including electronic document management tools to securely collate and manage data from multiple sources including handheld devices and direct input from diagnostic and clinical support equipment.

Here, again, the Nutanix infrastructure was of great help in making these and other new services available to hospital clinicians and patients in record time, as Hazel explains.

"In the NHS we're constantly playing catchup and not just in terms of the volume of data we have to process but with the introduction of new diagnostic, treatment and patient management technologies. To keep pace, we have to be agile and, for that, we're totally reliant on our IT infrastructure which, because it's from Nutanix, has given us both the scalability and agility we need."

Ian Hazel, Director of ICT & Infrastructure, Chesterfield Royal Hospital

Next Steps

With the original Nutanix investment due to reach end of life next year, Hazel will spend much of that time investigating what the hospital's next steps should be. Cost, as always, will be a major consideration and Hazel feels that on-premise infrastructure will continue play a big role in the hospital's IT strategy for some time to come:

"We're definitely sticking with Nutanix and will be keeping the majority of the infrastructure on-premise. However, we are planning on using a public cloud platform for long term backup and archiving and, possibly, moving some non-critical workloads into the cloud too. Longer term we'll definitely be taking a more hybrid approach to IT and expect Nutanix to feature prominently in those plans no matter how they pan out."

Ian Hazel, Director of ICT & Infrastructure, Chesterfield Royal Hospital

Partner

COOLSPIRiT has been helping companies deploy Nutanix technology since 2015. With specialist pre-sales, professional services and project management teams all with wide industry experience, customers can be assured of a market-leading service no matter what the project.

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