

Sakra World Hospital boosts patient care at critical time with Nutanix

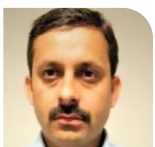
Nutanix Cloud Platform helps healthcare provider in India fast track telehealth during pandemic and reduce waiting times, improving patient satisfaction and levels of treatment

Sakra World Hospital (Sakra) reached a point where the three-tier infrastructure underpinning its healthcare systems became a barrier to further development. The number of patient appointments that could be booked each day was reduced because of time lost retrieving data from the electronic patient records system. Patient satisfaction was also hampered by the inconvenience of having to wait minutes for medical fees to be calculated in the billing system. The IT costs of powering and cooling were increasing, and backup processes took too long, putting data availability at risk.



“We are no longer tied down by our legacy infrastructure and can respond quickly to rapid social change—integrating new healthcare applications into our Nutanix stack so we can deliver first-class medical care night and day.”

– Bhoopendra Solanki, Head of IT, Sakra World Hospital



“With Nutanix, we have simplified our IT operations and can focus on supporting our clinicians with technology that will deliver the best patient care possible.”

– Maneet Sharma, IT Infrastructure Manager, Sakra World Hospital

INDUSTRY

Healthcare

BENEFITS

- Increases database performance so HIS and EPR data takes 1-2 seconds instead of 10-15 seconds to access
- Improves satisfaction with patient bills calculated in 30 seconds instead of 2 minutes
- Cuts IT management by 25%, reduces downtime by 90%, and admin time by around 57%
- Improves backup times—enabling 3 TBs of data to be backed up 4.7 times faster
- Lowers power and cooling costs by 55% and cuts TCO by 35%
- Ramps up telehealth, enabling patients to receive treatment during pandemic lockdowns

SOLUTION

Nutanix Cloud Platform

- Nutanix AOS
- Nutanix Prism management software
- Nutanix AHV

Applications

- Wipro HIS, including PACS and EPR
- Enterprise resource planning
- Microsoft Exchange Server
- Microsoft SQL Server
- MySQL database



“With Nutanix, the lead time for implementing new services at Sakra World Hospital has been drastically reduced. Downtime has also been cut by 90 percent, so we can focus on optimization rather than keeping the lights on.”

- Lovekesh Phasu, Chief Operating Officer, Sakra World Hospital

By migrating its systems to Nutanix, Sakra turned the situation around. IT became an enabler once more for improving patient outcomes. Clinicians could access data in seconds not minutes, and billing became quick. The hospital cut the total cost of ownership by 35 percent and launched multiple telehealth applications to help reduce the disruption of COVID-19.

CHALLENGES

Sakra World Hospital (Sakra) in Bangalore is a multi-specialty hospital offering different branches of medicine and surgery under one roof. With its 350-bed capacity and 200-plus doctors, Sakra boasts a state-of-the-art medical facility for people living in this vibrant city, which is also the center of India’s tech industry.

Sakra is constantly looking to improve quality of care, using technology to deliver services in new and more efficient ways for better patient outcomes. Yet, there came a point when the three-tier infrastructure underpinning its systems became a barrier to progress. It lacked the power and manageability to easily on-board new applications to support telehealth. The database servers supporting the hospital information system (HIS) and electronic patient records (EPR) couldn’t provide data in a timely manner, leaving clinicians with a wait of 10-15 seconds when they moved between application screens. The situation reduced the number of examinations they could attend to in a day. The rates of patient satisfaction were reduced by the frustration of waiting up to 2 minutes for their medical bills to be prepared. With the rising cost of IT in terms of power and cooling and the time it was taking for basic processes, such as backups, Sakra knew it was time for a change.

Bhoopendra Solanki, head of IT at Sakra World Hospital, says, “We needed to shake up our IT. The core problems were around our hardware platform and the performance it was giving us for our mission critical applications. We wanted to improve things from top to bottom, specifically the experience for doctors and patients. It was time to look to a new way to deliver IT.”

SOLUTION

Mr Solanki already had a solution in mind. “At a previous organization, we deployed a HCI [hyperconverged infrastructure] by Nutanix,” he explains. “I was impressed by the performance coupled with the energy efficiency.” Nevertheless, Sakra analyzed HCI solutions from Dell Technologies and HP before coming to a decision. “We chose Nutanix,” remembers Mr Solanki. “not least because of its reliability. In healthcare you simply can’t afford downtime.”

Sakra worked with Nutanix Partner Pentagon System and Services (PSSPL) to implement the Nutanix HCI. Maneet Sharma, IT infrastructure manager at Sakra World Hospital, says, "PSSPL gave us a lot of confidence that we could deploy the HCI without disruption to the hospital. In fact, the implementation went very smoothly, giving us a three-node cluster in our primary data center and a single node cluster at our secondary site."

In total, Sakra migrated 41 applications from the three-tier infrastructure to its Nutanix HCI running the Nutanix Enterprise Cloud OS with Nutanix AHV hypervisor. These applications included the Wipro HIS, including the picture archiving and communications system (PACS) and EPR. They also moved across key software applications such as the enterprise resource planning system and Microsoft Exchange as well as two Microsoft SQL and MySQL databases. Adds Mr Sharma, "To administer the HCI and VMs [virtual machines] underpinning the applications, we began using Nutanix Prism to give us one-click management simplicity."

CUSTOMER OUTCOMES

[Increases database performance so data takes 1-2 seconds instead of 10-15 seconds to access](#)

Moving to a Nutanix HCI has transformed the performance of Sakra's databases. Queries are answered faster, and application screens are updated in 1-2 seconds instead of 10-15. Comments Mr Bhoopendra, "We gained more performance with Nutanix by reducing from 8-core to 4-core CPUs and 128 gigabytes to 64 gigabytes of RAM, while upgrading from a 10-gigabit to a 40-gigabit Ethernet network." The impact is being felt across the organization at all levels, among administrators, doctors, and patients. Talk to a doctor nowadays and they'll say they retrieve patient data from the EPR in just a few seconds. A radiologist would add they can see X-ray images load onto their screen in less than one minute when before they could take 10. Says Mr Solanki, "We're a busy hospital, with 200-250 patients on-average visiting our diagnostics department every day, so it's great that Nutanix is helping us work more efficiently."

[Improves patient satisfaction, accelerating billing by 75%](#)

Aside from an improvement in clinical services, there's also been a boost to the wider patient experience. A bugbear for the IT team was the system used by the hospital's billing counter, which could take more than two minutes to prepare patient fees. "We've seen a huge improvement in this area," attests Mr Solanki. "It takes 30 seconds to calculate the fees, greatly improving patient satisfaction."

Mr Sharma adds, "With Nutanix, we have simplified our IT operations and can focus on supporting our clinicians with technology that will deliver the best patient care possible."

[Cuts IT management by 25%, reduces downtime 90%, and lowers admin time by around 57%](#)

The one-click simplicity of Nutanix has allowed Sakra to refocus resource away from routine infrastructure management. Previously, a team of four people oversaw the IT but today that team has been reduced to three, with the fourth person moved into strategic projects. Furthermore, with downtime reduced by 90 percent, the remaining members no longer spend time "keeping the lights on". Comments Mr Solanki, "We've cut administration time by around 57 percent, freeing the team to support colleagues working on application development."

[Ramps up telehealth, enabling patients to receive treatment during pandemic lockdowns](#)

The time IT has regained came just at the right moment, enabling a robust response to COVID-19. As a result of the pandemic, people's movements were restricted, with many patients unable to visit the hospital for

appointments. To minimize disruption, Sakra fast-tracked its telehealth program, using the performance and simplicity of Nutanix to launch seven new applications for remote registration and payment, and to support video-based consultations. “The telehealth applications we’ve launched on Nutanix are working well,” comments Mr Solanki. “We could react faster to the needs of patients because nowadays we have time to think through telehealth and other digitization projects.”

Improves backup times—enabling 3 TBs of data to be backed up 4.7 times faster

With Nutanix, Sakra is also assured that the data and applications doctors rely on are more protected than ever. It uses Veeam Backup and Replication for Nutanix AHV so that data is secure and constantly available even during outages. Today, for instance, backing up 3 terabytes (TBs) of data from a mission-critical database takes around 1.5 hours rather than seven.

Lowers power and cooling costs by 55% and reduces TCO by 35%

By replacing the three-tier infrastructure with a Nutanix HCI, the hospital has also been able to more than half its IT energy costs. “The solution is both compact and power-efficient,” recounts Mr Solanki. The combined costs of running Nutanix, including support, over the coming five years is substantially less than the legacy solution. “We reduced the total cost of ownership by 35 percent with Nutanix,” comments Mr Solanki, “helping us align IT with the hospital’s general goal of greater efficiency.”

NEXT STEPS

The flexibility and performance of Nutanix have not only provided Sakra with a platform to improve service delivery but also to respond to the pandemic in an effective manner. The plan is now to build on the hospital’s current capabilities to support continued development and growth. For Mr Solanki, he feels as though IT is now an enabler for Sakra—something he’s always wanted it to be. He describes the HCI as “awesome,” and adds, “Nutanix has proved to be a great investment for the hospital.”

PARTNER

Pentagon System and Services

Mumbai-based, Pentagon System and Services (PSSPL) had the Nutanix expertise to give Sakra World Hospital peace of mind when implementing its Nutanix HCI. PSSPL ensured a smooth implementation and handover, helping the project to meet its timeline.



T. 855.NUTANIX (855.688.2649) | F. 408.916.4039
info@nutanix.com | www.nutanix.com | [@nutanix](https://twitter.com/nutanix)

©2021 Nutanix, Inc. All rights reserved. Nutanix, the Nutanix logo and all product and service names mentioned herein are registered trademarks or trademarks of Nutanix, Inc. in the United States and other countries. All other brand names mentioned herein are for identification purposes only and may be the trademarks of their respective holder(s).