

Max Healthcare transforms patient care experience with Nutanix

One of India's leading healthcare providers improves inpatient services and scale out telemedicine during COVID-19 lockdown

BUSINESS BENEFIT

Max Healthcare is a leading provider of healthcare services in India with approximately 3500 beds. Committed to world-class medical services, the organization delivers excellent patient care through highly trained medical professionals backed by information systems. With data taking minutes to become available across these systems after patients were administered, challenging clinical efficiency, Max Healthcare took action.



“With Nutanix, our doctors no longer wait minutes for inpatient systems to update when patients check in—the data is instantly there. Greater speed of access to patient data along with telehealth powered by our Nutanix Cloud platform is helping us transform healthcare services.”

- Navneet Batra, Vice President of IT, Max Healthcare

INDUSTRY

Healthcare

BENEFITS

- Patient data instantly available across hospitals with database replication in real-time
- Telehealth capability ensures first-class patient care during COVID-19 crisis
- Outage threats on critical patient applications are eliminated
- IT management time reduced by 60-70%, freeing up resource for strategic projects
- Enhanced data protection sees approximately 40% improvement in data backup speeds
- Power usage cut by 80% across IT

SOLUTIONS

- Nutanix Cloud Platform
- Nutanix AHV
- Nutanix Prism Pro management software

APPLICATIONS

- Vista Hospital Information System
- Computerized Patient Record System
- Vital Information System
- Finance and billing system
- Microsoft SQL Server database

By migrating the IT for Max Healthcare's 14 hospitals to the Nutanix Cloud platform with the support of Nutanix Partner Sify Technologies, the IT challenges were fixed. Inpatient data now became instantly available across systems post check-in thanks to database real-time replication. Any concerns about outages were relieved, and the organization was able to ramp up its telehealth capabilities as COVID-19 struck. In addition, IT management time was cut by 60-70 percent, back-up speeds rose by approximately 40 percent and power usage was slashed by 80 percent.

CHALLENGE

Max Healthcare is among India's leading providers of healthcare services. Its network of 14 hospitals and five medical facilities across north and west India, are operated by more than 2,300 doctors and over 6,600 medically trained staff. The hospitals treat 2.8-plus million patients a year from 130 nationalities.

As with major healthcare providers globally, IT has transformed the way services are delivered at Max Healthcare. The Hospital Information System (HIS), Computerized Patient Record System (CPRS), telemedicine applications, plus financial and billing systems ensure best-in-class patient services and smooth-running operations. Plus, a Microsoft SQL Server database holds the applications' data. However, as workloads increased and Max Healthcare continued to expand, weaknesses became clear in the three-tier legacy infrastructure supporting the systems.

"The age and management complexity of our infrastructure made outages a real concern—and you just can't afford downtime in a hospital," says Navneet Batra, vice president of IT at Max Healthcare. A lack of performance impacted the speed of replication between databases. This meant inpatient data captured in the CPRS when a patient was admitted could take a few precious minutes to become available in other clinical applications, potentially delaying treatment. "Improvements were clearly possible, and since we are committed to providing the best healthcare to our customers, we wanted to take action," adds Mr Batra.

With the hospital also looking to develop its telemedicine capabilities, Max Healthcare saw there was work to do. These included reducing management time, increasing scalability, agility, and enabling greater performance. Mr Batra adds, "We also aimed to improve our analytical capabilities to be more proactive in the way we administered the data center."

SOLUTION

Max Healthcare looked at several hyperconverged infrastructure (HCI) solutions to help the organization get to where it needed to be. "Of the providers we looked at only Nutanix offered its own virtualization hypervisor. It was a pure end-to-end solution, so we wouldn't lose time working with multiple partners," comments Mr Batra.

He continues, "Nutanix could support all of our critical workloads, including HIS, CPRS, finance and billing, while also enabling us to develop our telemedicine. Through the Nutanix Cloud platform, we had a way to converge our server, storage, networking, and management into a highly redundant software-defined solution."

Nutanix partner Sify Technologies had the skill sets to successfully migrate the workloads for all 14 hospitals to a three-node Nutanix Enterprise Cloud cluster. The partner created the cluster, which sits in Max Healthcare on-premise data center, without disruption to the hospitals' daily operations. "These were critical applications, and Sify Technologies did a great job of migrating them to Nutanix. Throughout the project, we were impressed with the collaboration between Nutanix and Sify," remembers Mr Batra.

The Nutanix AHV hypervisor supports all Max Healthcare's systems with integrated virtualization, management, performance insights, and security. Nutanix Prism Pro also allows Max Healthcare to proactively manage the cloud platform, uncovering potential issues before they become problems. With Nutanix Prism Pro, the organization has also automated optimization across the entire software-defined stack.

CUSTOMER OUTCOME

Patient data instantly available with database replication in real-time not minutes

With Nutanix, Max Healthcare can deliver a more effective level of care to patients. Through better IT performance, clinicians access patient data faster than ever. Once a patient is admitted their details and any historical data are instantly available across all medical applications. There is no time lost while data replicates between databases. Says Mr Batra. "Thanks to the performance of Nutanix, we've taken the quality of our patient care to a new level."

Telehealth support ensures first-class patient care during COVID-19 crisis

When COVID-19 struck, Max Healthcare needed to fast track its telehealth plans, so vulnerable patients could stay at home and still receive treatment. Max Healthcare launched a vital information system on Nutanix to enable clinicians to observe the heartbeat, blood pressure and other vital signs of patients remotely. "We never had this level of agility before. Using Nutanix, we had the scalability and performance to accelerate our telehealth plans at a critical moment," remembers Mr Batra.

Outages on critical patient applications are eliminated for peace of mind

The Nutanix Cloud platform is serving 14 hospitals and more than 5,000 staff, including all 2,300-plus doctors. Mr Batra is proud that Max Healthcare can offer the IT support the doctors need to deliver the best care possible. Moreover, he is highly satisfied that the support can be delivered without fear of outages. "The redundancy built into our Nutanix Cloud platform means we have eliminated the threat of outages that we lived under. We have peace of mind that our services will stay up and running day and night."

IT management time reduced by 60-70%, freeing up time for strategic projects

Future development will be easier now that resources have been moved away from routine management. As a result of Nutanix Prism Pro, Max Healthcare has automated much of its systems administration. Instead of a team overseeing the infrastructure, there is a single administrator controlling the entire Nutanix Cloud platform through a single console. States Mr Batra, "We've reduced management time by 60-70 percent, giving us a lot more ability to drive development."

Enhanced data protection sees approximately 40% improvement in data backup speeds

There is less chance of data being lost in the event of disaster, disrupting patient services. That's because Max Healthcare can backup terabytes of medical data around 40 percent quicker with Nutanix. "We now have gigabit speed connectivity so data travels much faster—improving all operations. Data that took 8 hours to back up previously, can now be backed up in less than five," comments Mr Batra.

Power usage cut by 80% across IT

An HCI, Nutanix has enabled Max Healthcare to consolidate its IT and reduce the hardware footprint significantly. "Because of the Nutanix HCI, we've cut our power bills by 80 percent. This represents an important cost saving, while helping our IT align with the organization's broader aims to reduce the carbon footprint," says Mr Batra.

NEXT STEPS

Max Healthcare now plans to roll out a virtual desktop infrastructure (VDI) on Nutanix across its hospitals. With Accops as the VDI broker software, at least 20 percent of the desktop estate will come under the virtual desktop in a first phase. “From the admissions desk through to the nursing stations and the devices doctors used to access patient data will come under the VDI,” comments Mr Batra. “With Nutanix, we have our current and future needs covered.”



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