CUSTOMER SUCCESS STORY

Narayana Health advances care in India with rapid availability of records

NetApp



NetApp hybrid cloud technologies, including E-Series hardware and Cloud Volumes ONTAP, are a healthy choice for storing data. Access to patient histories and diagnostic records is basic to delivering clinical treatment and saving lives. Advancing beyond basic care to proactive, holistic, and comprehensive care requires innovative thinking about how to transform medical data into meaningful, actionable intelligence.

Narayana Health has earned a leadership role in the transformation of the delivery of care throughout India. Since its founding in Bangalore less than 20 years ago, Narayana Health has grown to 22 hospitals and clinics, with a complementary emphasis on care that is both affordable and high quality.

A reliable and responsive IT infrastructure is crucial to fulfilling those goals. Ramu Manjunath, core infrastructure head for Narayana Health, is tasked with keeping a complex applications and data network infrastructure up and running. He and his staff of 90 engineers depend on a broad range of NetApp[®] technologies to deliver innovative care.



2.6 million patients served

"Storing data on NetApp is much faster compared to other products and has the right management approach as well. It's simpler and easier for our engineers to configure and manage."

Ramu Manjunath

Core infrastructure head for Narayana Health

Narayana Health group is India's leading healthcare provider and one of the largest hospital groups in the country, with a network of 22 hospitals, 6 heart centers, and 19 primary care facilities. The healthcare group treats more than 2.6 million patients every year.

Ramu Manjunath's staff of 90 engineers across India depends on a broad range of NetApp technologies in a hybrid cloud environment. "We cannot afford to lose any of our critical data," he said.

NetApp technologies are at the core of the infrastructure. A NetApp E-Series E5700 offers centralized record management data support, and 15 NetApp FAS2750 units support branch locations. NetApp Cloud Volumes ONTAP® provides management of storage. Two fully replicated data centers, one in central India and one in south India, are in Azure cloud running backup and recovery using Azure NetApp Files and NetApp file services.

With built-in redundancies, connectivity with a clinic in the Cayman Islands using AWS, remote partner access, and the need to support 17,000 connected employees and 6,000 endpoints, Manjunath depends on NetApp for application and storage performance and reliability.

Narayana Health has deployed NetApp products and relevant features to store and process patient records and images. According to Manjunath, their investment is enabling increased data availability, reliability, manageability, and integrity. In addition, he said, the platform can be seamlessly extended to accommodate future data needs.

Information at the point of care

One issue is common to all health systems: providing rapid access to patient records to help diagnose current issues. If a test or procedure has been done before blood work, X-rays, CT or MRI scan—immediate access to the results can be life saving. Narayana Health has built a home-grown records management system, called Athma, to capture, store, and retrieve these networks across 15 sites. According to Manjunath, "Patients have the complete continuity of their entire medical history. Their history is available in our system and can be pulled in a few seconds, so the doctors can review and take a call rather than going back and forth [to find records] or reinvesting in investigations."

The centralized storage system for the application and the data is built on NetApp and is available via cloud. The system gives clinical staff the insights they need to give better care.



Trusted architecture, support, and service

During his distinguished career, Manjunath has worked with all of the top infrastructure vendors. When a previous implementation of a mixed vendor infrastructure was up for replacement, he chose to replace exclusively with NetApp products. The ability of his engineers to easily configure and manage the environment, especially in a hybrid cloud, was a deciding factor. "Storing data on NetApp is much faster compared to other products and has the right management approach as well. It's simpler and easier for our engineers to configure and manage," he said. "I don't have to have an expert exclusively managing storage—it's straightforward and simple. From an implementation standpoint, from an architecture standpoint, from the support standpoint, especially considering the service time, I was very comfortable to continue with NetApp."

The ability to move data seamlessly from the onpremises hardware to Azure cloud was a major selling point. All of the application development, production, and disaster recovery workloads are on Azure. The ability to deploy DevOps workflow tools and testing to the cloud means that development teams can work around the clock without sacrificing performance, and still control costs. The on-premises E-Series system provides localized performance and manageability, and also meets record-keeping compliance requirements.

The hospital system has big plans to expand the number of locations and add more clinical services to its 60-plus specialties. NetApp is ready to help, with the ability to expand and also manage optimization through Cloud Volumes ONTAP and costs through tools such as NetApp Active IQ[®].

"Expanding is not a challenge at all, to add additional drives and then expand the box," Manjunath said. "It's not only going to support 300 or 400 terabytes, the E-Series 5700 will support petabytes if we need them." Al diagnostics are transforming the infrastructure Narayana Health's rapid growth and commitment to innovation in the past 20 years have made it a leading hospital. To improve patient care, India's healthcare system must take advantage of innovations. "We see that AI and analytics will be increasingly important to support our doctors to make better decisions," Manjunath said. "That is going to be our future, and we have to have an infrastructure capable of

With pride, Manjunath notes that his team has the tools to pursue any growth strategy and implement new technologies as they arrive.

"I see that the infrastructure and technology used in Narayana Health System is far better than in any other hospitals in India," he said.

To learn more about NetApp healthcare solutions, go to: netapp.com/industries/healthcare/

supporting it."

Products Azure NetApp Files NetApp Active IQ NetApp Cloud Volumes ONTAP NetApp E-Series E5700 NetApp FAS



About NetApp

In a world full of generalists, NetApp is a specialist. We're focused on one thing, helping your business get the most out of your data. NetApp brings the enterprise-grade data services you rely on into the cloud, and the simple flexibility of cloud into the data center. Our industry-leading solutions work across diverse customer environments and the world's biggest public clouds.

As a cloud-led, data-centric software company, only NetApp can help build your unique data fabric, simplify and connect your cloud, and securely deliver the right data, services and applications to the right people—anytime, anywhere. To learn more, visit <u>www.netapp.com</u>

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