Sitec Labs accelerates medical breakthroughs with Nutanix

Helps research teams speed up the launch of projects in the manufacture of new medicines to fight disease.

To date, Sitec Labs synthesised over 500 impurities for clients all over the world. Sitec Labs provides unique synthesis of impurity substances and is also one of the major service provider related to clinical research sector. With Nutanix delivering the IT that research teams rely on, the firm is launching projects faster with an infrastructure that is more agile and less expensive to maintain and administer, thus freeing up resources for the organisation to channel into improving its technical skills.

Challenges

Sitec Labs in India is established in December 2004 with the goal of delivering the highest quality standards in the field of bioequivalence and analytical research. The company is ISO 9001:2008 certified and its strength lies in offering end to end clinical and analytical solutions and advisory services for pharmaceuticals, food, and herbal goods from all over the world.

IT systems from Sitec Labs are tasked with capturing data on every phase of the drug development process for storage and analysis by their team of research analysts. This means ensuring business continuity is of utmost concern for the IT department as their customer satisfaction relies on the availability, security, and protection of these research data.

With the company growing rapidly, Sitec Labs decided it was time to revamp the three-tier infrastructure that supported its operations. "I didn't have 100 percent confidence that our IT could continue to support the business as we expanded," says Dr. Kambhampati, Sitec Labs' head of operations. "Cost and complexity were increasing; IT is moving so fast nowadays with the developments of hybrid and multicloud cloud, and our outdated platform couldn't keep up."

Use Case

Sitec Labs replaced the legacy infrastructure with Nutanix, implementing two clusters which today has a total of eight nodes. Some 95 percent of its pharmaceutical and business-related applications and databases, including Microsoft SQL Server engines, have been migrated to the Nutanix platform without any challenges. "Migration has been pretty seamless, and we had close support from our local Nutanix team, even during the pandemic, to make sure everything went as planned," remembers Dr Kambhampati.

Industry
Healthcare

Location
APJ

Applications
- Pharmaceutical ERP, LIMS (lab information management systems) and Research and Development, etc
- Business processes ERP systems
- Microsoft SQL Server, MySQL, PostgreSQL

Key Benefits
Launches research projects 50% faster
- Enabled business to drive growth while maintaining an excellent level of customer service.

Consolidates IT by 70%
- Removed power-hungry servers, helping IT align better with sustainability goals.

Reduces maintenance overheads by 60%
- Focused more resources on developing IT services and future cloud strategy.

Products
Nutanix Cloud Infrastructure
- AOS Storage
- AHV hypervisor

Solutions
- Business Continuity & Disaster Recovery
- Business Critical Apps

As part of the deployment, Sitec Labs has deployed AOS Storage for high-performance, scalable and resilient storage; and AHV Virtualization to securely power all virtual machines. The Nutanix cluster is also providing the company with disaster recovery, with systems failing over between nodes in seconds in the event of any outages to avoid trouble for the business and employees. "Nutanix is at the heart of our business continuity plan, giving us snapshots to fall back on and peace of mind that we can avoid disruption and focus on the work for our clients," says Dr Kambhampati.

Customer Outcomes

Launches research projects 50% faster

With the move to Nutanix, Sitec Labs can continue expanding, taking on more projects while maintaining an excellent level of service to its customers. Kambhampati and his team can have the IT in place for the research analysts to get to work on a new research project in half the time it used to take. "We're able to submit projects before the agreed timelines because our IT is so much more agile now that we're running on Nutanix," Dr Kambhampati says.

Gains competitive advantage

In an increasingly competitive market like clinical research, greater agility can help give the Sitec Labs an edge. "If we can launch research projects and deliver results faster or accommodate change and pop-up projects the moment they come in, we're going to win more business in the end," comments Dr. Kambhampati.

He adds, "I'm seeing the demands on our IT services increase exponentially in line with rapid growth in demand for research and diagnostic services. But that's okay because I know that we can have the Nutanix servers, storage and networking there for our staff, whenever they need them."

Ensuring the business keeps running with VMs restored in 5 minutes

Dr Kambhampati's confidence in Nutanix was validated when the platform proved its worth ensuring complete data protection in a memorable incident. Section head Mr Pragati Thorat described the episode where data on several Microsoft-based virtual servers ended up being corrupted while the machines were relaunched after a period of planned downtime.

"An application used for running the clinical research operation got impacted due to the Windows cluster failing," said Mr Thorat. Nutanix support team acted quickly to confirm that the Nutanix setup was fine, and Microsoft support said the machines had to be restored from a backup. "Our IT team immediately restored the servers from backups in Nutanix. Thanks to Nutanix, the issue was resolved in five minutes with all the VMs up and running," said Mr Thorat. "We averted a critical business situation thanks to a flawlessly executed data recovery by Nutanix," added Dr Kambhampati.

> " I see the pace of change in IT is increasing; therefore, we need a platform like Nutanix that is constantly upgrading and updating to ensure we have the latest technology to compete successfully in a global market.

Dr Anjan Kambhampati
Head of Operations, Sitec Labs

Server engineer Mr Abdulla Khan also has praises for Nutanix's Prism which includes various features, like its one-click snapshot and cloning feature for VMs, which can help to ensure data disaster recovery.

Consolidates by 70%, cuts power use and lower costs by more than 60%

The IT team has made significant progress towards its goal of a more cost-effective and energy-efficient operation. With Nutanix, it's consolidated hardware by 70 percent, reduced power usage and annual maintenance costs by more than 60 percent. "We've improved IT across-the-board and freed up resource that we can invest back into IT development," states Dr Kambhampati.

Reduces maintenance resource by more than 65%

The simplicity of Nutanix has allowed Sitec Labs to move more IT staff into development and innovation. "We had 25 IT personnel maintaining our three-tier infrastructure and now we have just two overseeing Nutanix," says Dr Kambhampati. He has seen for himself how the migration has transformed IT administration. "Our single cluster on Nutanix is just so much more scalable than our legacy servers. Everything, including upgrades to the system, seems to be done in seconds; and it's just so reliable—there is zero downtime."

Delivers better end-user experience

Personnel across the organization feel like they're being better supported by their IT nowadays. Everyone is working hard to deliver great research in a timely manner and expand the company, winning new projects and breaking into new markets outside of India. "We are happy about the level of service that can we deliver to our end-users with Nutanix. Our IT is helping drive growth—which is what IT should be doing."

Next Steps

Looking to the future, Dr Kambhampati and his team will be assessing how Nutanix can support the company's evolving multicloud strategy. Just like many providers of research and diagnostic services, Sitec Labs has relied on on-premises private cloud environments to support its work, but times are changing. "We're there right now, thinking how Nutanix can support our move as we plan our transformation to multicloud," Dr Kambhampati concludes.

Learn more at https://www.nutanix.com/one-platform

> "Nutanix restored some of our critical servers from backups to new instances in less than five minutes, helping us recover from a critical situation that could have disrupted the business for days.

Pragati Thorat
Section Head, Sitec Labs

NUTANIX