Great Expressions Brings Smiles to Patients with Faster, Better Care

CHALLENGE
Great Expressions Dental Centers’ doctors and team members strive to deliver a superior experience to every patient. To power its key operations, Great Expressions maintains a Dental Practice Management (DPM) software system that supports 300 offices in 11 states across the U.S.

“When we affiliate with an office, we extract their data into our DPM system and support it,” says Todd Rogers, Infrastructure Manager at Great Expressions. “Our IT team also supports digital radiography, ingesting 100 Gigabytes of X-rays and images each day throughout our organization. We replicate all X-rays to our data center and central repository and distribute them via a web browser so doctors can view and share them.”

Rogers and his team are committed to applying the latest dental and healthcare innovations to serve patients better.

“We are using IoT solutions, with 4500 sensors out in the field, and new sensors are coming soon in compressors, X-rays, and other to provide real-time usage data,” says Rogers.

When the Great Expressions CIO announced his vision to make the firm the most technology advanced dental services organization in the country, the IT team identified several areas that could be improved.

“Troubleshooting was always difficult, and our separate network, storage, and compute environments led to finger pointing by our multiple vendors when a problem arose,” says Rogers.

As Great Expressions grew, its infrastructure was also becoming increasingly complex and time-consuming to manage, and could keep up with the latest waves of innovation.

SOLUTION
Great Expressions initiated a major overhaul of its entire infrastructure, migrating its data center to a hyperconverged Nutanix Enterprise Cloud solution.

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- Todd Rogers, Infrastructure Manager, Great Expressions
“We completed a proof of concept (POC) and quickly realized that Nutanix would solve many of the problems we had,” says Bobby Cox, Senior Systems Engineer at Great Expressions. “We could use one vendor for a fully converged compute, storage, and networking solution. We were also impressed by the Nutanix vision and Enterprise Cloud platform feature set.”

Consolidating for Simplicity and Savings
The hyperconverged Nutanix infrastructure brings together compute, storage, virtualization and networking in a full-stack solution to support the Great Expressions DPM application, as well as SQL workloads and data warehouse operations.

“Its interface and manageability are much simpler than our prior solution,” says Cox. “Features like one-click upgrades make it much easier for everyone on our team to work on the platform without requiring specialist knowledge. It also provides superior scalability compared to our old SAN.”

The Nutanix solution also helps Great Expressions minimize its equipment footprint, to save money on power and property charges.

“We were experiencing data center sprawl with a three-tiered infrastructure,” says Cox. “Now we can consolidate our IT infrastructure by more than 80 percent, saving $3800 a month on rack space alone.”

True Disaster Recovery
The migration to Nutanix also provided Great Expressions an opportunity to easily set up a disaster recovery (DR) system using Xi Leap and Xi Cloud as an extension of its on-prem solution.

“Previously we had an offsite cold storage backup system in place, but not an actual DR system, which really kept us up at night,” says Cox. “Restoring all our data in the event of a disaster would have taken weeks.”

Nutanix Xi Leap lets Great Expressions take advantage of DR as a native Nutanix service, with fully automated failover and an ability to easily test recovery plans with no disruption to production environment. There’s no longer a need to deploy multiple products for DR, and IT can seamlessly port VMs and networking profiles to Xi Cloud. Rogers and his team have completed a Xi Leap POC, and are preparing to deploy the solution into production.

“It took up to 24 hours to get all our VMs exported in the other solution we tested,” says Rogers. “With Xi Leap, I literally click a button and two minutes later I see VMs starting up.”

BENEFITS
Nutanix provides centralized visibility into the entire infrastructure to help IT save time and make better use of its limited resources.
“Troubleshooting time has been cut down by half or more,” says Rogers. “In the past, if a primary SQL server was performing poorly, we would have to examine four different consoles. Now we can see everything from a single Prism Central dashboard for Xi Leap. Provisioning VMs is faster, too. Instead of taking five minutes to provision a VM on our server farm, I can create 50 VMs in seven seconds.”

More Time to Focus on Innovation
Spending less time on tasks like provisioning and troubleshooting, with no need to manage a separate DR stack, has helped minimize operational burdens, freeing IT group to innovate.

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Improved Compliance and Peace of Mind
Regulatory compliance is easier with Nutanix, with security integrated deeply into the solution.

“Nutanix offers encryption at rest, which helps us with HIPAA compliance,” says Rogers. “With other solutions, encryption was always a plugin or add-on. It’s much easier to deploy it as a native capability.”

Xi Leap will also help safeguard the integrity of the company’s data.

“Leap gives us peace of mind in knowing we have a viable option to failover in the event of long-term maintenance or disaster,” says Rogers. “Our goal is to have all of our workloads in all offices replicated to Xi Cloud, so even in the event of failure, we would experience a maximum of 1 hour Recovery Time Objective (RTO).”

NEXT STEPS
Great Expressions is looking forward to continuing to build on its Nutanix Enterprise Cloud foundation. For example, the company is considering Nutanix Calm to support native application orchestration and lifecycle management.

“We are looking at implementing Calm to help automate our application provisioning and deprovisioning processes,” says Cox.

To further enhance network and policy management, the company is also evaluating Nutanix Flow.

“We are considering Flow to enable microsegmentation and gain better insight into traffic than what we currently have. Flow will give us a better understanding of East-West and North-South traffic as it relates to each VM.”

With Nutanix Enterprise Cloud in place, Great Expressions looks forward to continuing to extend and develop its scalable platform in the years ahead.