CASE STUDY

Austin Radiological Association Upgrades to Tintri VMstore™

VMstore

Austin Radiological Association (ARA) has been delivering high quality imaging services to the people of Central Texas since 1954. ARA currently operates seventeen outpatient imaging centers and provides professional radiology services for over twenty area hospitals. Delivering exceptional patient care goes hand in hand with staying on the cutting edge of technology.

The Challenge: Legacy System Requires Highly Trained Personnel to Operate

ARA relies on three primary radiology applications: a medical imaging archive application by Fuji Medical Systems; a radiology information system provided by Medinformatix, and radiology dictation by Nuance Powerscribe 360. In addition to the three radiology applications, the IT team is also responsible for managing approximately 300 additional applications for supporting ARA's business services and medical operations.

"We've gone through three major IT re-architectures over the last ten years," noted Todd Thomas, Chief Information Officer at ARA. "The most recent one included a system that was a carryover from the old Fibre Channel days. Even though it was a step up from our previous infrastructure, it still required a highly trained IT person that understood how to provision storage and how virtual machines ran on that system."

"We support 850 internal users," Thomas said. "In addition, we provide support for roughly 10,000 users outside our organization who utilize a subset of our applications—receiving of orders and sending of images to our referring physicians. We also allocate a portion of our infrastructure for several multidisciplinary facilities and hospitals in central Texas, where we enable them to outsource their image management to us. We run their applications to our systems and store their images on our IT infrastructure simplifying their image management."

ARA's latest refresh of its data center infrastructure came in late 2011. A few years later, the existing storage platform came to the end of OEM maintenance which challenged ARA to begin thinking about what its future data center infrastructure might look like. "We focused on storage first because that was the platform that takes the most skill to deploy and manage," Thomas noted. "We wanted to find a solution that was much simpler to use—where the technology would do all of the heavy lifting for us so we wouldn't have to train on expanded archaic commands. We didn't want to rely on storage specialists anymore. The chosen systems should be easy enough for anyone on our IT staff to do everything the business requires."

The Solution: Tintri VMstore

"We've been following Tintri for a number of years," Thomas shared. "When we looked at re-architecting our data center and moving off the previous vendor's storage in early 2015, we brought Tintri back in to see their newest storage solution. Our environment is now 98% virtualized, so Tintri VMstore is the perfect fit for our organization. VMstore was built from the ground up for virtual environments. The close synergies between our virtualization strategy and the VMstore hardware platform made it a very easy decision to move up to VMstore."

ARA purchased four Tintri VMstore systems and installed them at two data centers in an active-active configuration. ARA is now running all of its virtual machines, databases, radiology and business applications on VMstore.

The Result: Straightforward Management Environment

The difference between standard infrastructure and Intelligent Infrastructure was immediately evident. "We initially fell in love with VMstore because of its ease-of-use," Thomas shared. "The interface is so intuitive we were able to eliminate the need of a high-level SAN engineer and our Windows server administrator can easily provision space. We now rely on a 'general-purpose'

Challenges

- Legacy storage platform was difficult to manage, requiring the skills of a dedicated storage engineer

Solution

- Tintri VMstore

Results

- Eliminated the need for a highly trained storage specialist
- Improved application performance
- Shortened the time to create complex reports from six hours to thirty minutes
- Reduced rackspace and power consumption by 4x

Tintri
Intelligent Infrastructure

server person for our VMstore environment, as opposed to a higher salaried storage engineer for the legacy environment."

"Managing VMstore is pretty straight forward," noted Terrence Jones, Cloud Engineer at ARA. "The best part is we went from managing over eighty LUNS to flat-file systems. When we did have performance issues on the legacy systems, we would have to rely on the legacy system's performance analyzer, making troubleshooting difficult. I'm happy I can easily get near real-time statistics at the VM level with VMstore, instead of the LUN level with our legacy systems."

All of ARA's applications and databases are performing better on the Tintri VMstore systems, according to Thomas. "Our data analysis team have been raving about the speed of the new VMstore systems," he said. "Our analysts run a lot of large database queries in order to generate a series of very complex reports. Upon installation of VMstore, the data analytics team reported a reduction in run time for one of their reports from six hours to under thirty minutes."

Tintri VMstore systems also consume far less power and floor space than the previous storage systems. The legacy systems were rated to use 1.2kW in standby and 5.6kW in operation. VMstore is rated at (nominal) 680 watts—equating to a 4x reduction in power consumption. "We moved from a very large system that took up an entire rack," Thomas said. "The four VMstore systems fit in the bottom of one rack, consuming only about a quarter of the space of our legacy system. Plus, VMstore is very good at deduplication and compression. We have obtained between 1.7x to 2.3x compression across our four VMstore systems."

ARA recently received a request from one of its clients for a 'classic' backup solution, due to an issue they ran into with failover and restore testing using the existing replication software. "The restore failed on one of their servers, and the client was not happy when they had to rebuild that system from scratch," noted Thomas. "They wasted a lot of administrative time. That's what convinced us to look at Tintri VMstore SyncVM."

ARA is now switching off of its existing replication software. VMstore SyncVM provides efficient copy data management at a VM-level—regardless of the VM size—and with no loss of performance history. It also enables ARA to restore environments very quickly. "There are those that say, 'Why are you going back to an array-based replication strategy when the software you had worked across multiple arrays?' " Thomas shared. "VMstore's replication solution gives us the scripting capability and flexibility to create development environments on-the-fly. In addition to being able to create snapshots that satisfied our clients' backup needs, we were also able to reclaim a lot of compute and storage resources using SyncVM."

"ARA is committed to providing excellent patient care which requires our IT organization to stay abreast of technology changes that will enhance our solutions for our referring providers and drive efficiency in our internal operations. The solution we selected allows us to easily manage and scale as our environment grows while providing a lower cost of ownership than our legacy system. We have also gained a lot of flexibility by automating our replication and restore processes using SyncVM. All of these benefits made it easy to justify upgrading from our legacy system to VMstore," Thomas concluded.

"Tintri VMstore is providing a much lower cost of ownership than our legacy system. It's also easier to manage and scale as our environment grows, and we have gained a lot of flexibility by automating our replication and restore processes using SyncVM. All of these benefits made it really easy to justify upgrading from our legacy system to VMstore."

R. Todd Thomas, Chief Information Officer, Austin Radiological Association

Experience Different! For more information on how Tintri VMstore can turbo-charge your business success through a simple, Intelligent Infrastructure, visit tintri.com/vmstore.

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