The City of High Point Chooses Tintri Storage for Virtual Environment

Switch from NetApp to Tintri Provides Higher Performance and Simplifies Storage Management of Virtual Environment

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Industry
- City Government

Geography
- High Point, North Carolina

Virtualization environment
- VMware vSphere (120 VMs)
- Traditional storage: NetApp

VM profile
- Currently 112 virtual servers running apps such as Accela Land Management, Budget, Cayenta Customer Service Dispatch and Billing System, GIS Web, Heat Service Desk, Infor Lawson ERP for Financials and HR, Laserfiche, NeoGov, SCCM, SharePoint, SQL Server, TrendMicro Antivirus Server, and Veeam Enterprise Backup software.

Key challenges
- Inadequate performance with NetApp systems and lack of visibility into system health

Tintri solution
- Tintri VMstore™ T820 systems

Primary use case
- Tintri is being used for most enterprise production workloads and disaster recovery

Business benefits
- Eliminated hundreds of hours of storage management
- Improved application performance by 50%
- Procured hybrid SSD storage at the same price as slower legacy systems
- Obtained VM-level visibility for easier troubleshooting

The City of High Point

The City of High Point is a thriving metropolis of more than 106,000 residents, located in the Piedmont Triad region of North Carolina. The City's IT Services Division provides an array of information technology solutions to solve the organization's internal business needs and provide informational services to external customers. The division's goal is to be one of the premier IT organizations in the public sector, known for innovative and dependable solutions.

IT Challenges

Fred Reynolds is the City of High Point's IT server manager. He is in charge of Linux and Windows servers as well as all VMware, Citrix, SQL Server, and Oracle database environments. His group is responsible for all of the servers in the City, encompassing Solaris, Linux, and Windows. They are also responsible for storage which currently is on NetApp, Tintri, and DataGravity. The applications they directly administer are VMware, Citrix, SQL Server, Oracle, Veeam, Exchange, and others.

The City had been using a NetApp solution that originally met all application and service requirements, but it wasn't simple to manage and didn't provide the analytics needed to easily troubleshoot any problems or bottlenecks in the complex environment.

"Our NetApp storage systems worked adequately for a while, but our environment was growing much faster than we anticipated," Reynolds reported. "It was a very complex environment, with over 50 separate datastores. When the person responsible for administering the NetApp arrays left the city, I was suddenly chartered with maintaining those arrays in addition to all of my other duties. Due to all of the complexity, it was something that would have taken me or another administrator a very long time to figure out. We knew we needed to enlist the help of an IT services partner."

5S Information Technology and Services

North Carolina's 5S Technologies is a well-known provider of application optimization solutions in the Southeastern United States. "We offer a wide range of products and services for nearly all application performance needs," noted Jamey Durgin, VP of engineering at 5S. "We've been working with the City of High Point for over 15 years and know their IT environment inside and out. Because they were running VMware, we told them that Tintri would be an excellent choice for their needs."

"Since we have a relatively small IT organization, we need a partner that can serve as an advocate for us with all of our technology vendors," noted High Point's Reynolds. "5S offered us their IntellAApod solution that was perfect in two ways: it solved all of our immediate datastore congestion and reorganization problems, and it was also the perfect match for our VMware environment."

“ If you have VMware, you should be buying Tintri. It’s just that simple.”

Fred Reynolds, Server Manager, City of High Point

5S Technologies offers solutions based on Tintri’s VMstack converged infrastructure, combining best-of-breed compute, network, and Tintri VM-aware storage. Part of Tintri’s VMstack validation with end-to-end 5S support and management, the purpose-built IntellAApod is an intelligent, application-aware platform, flexible enough to support the most complex cloud environments.

Evaluating Tintri

Reynolds and several members of the City’s IT team reviewed the product information and case studies on Tintri’s website, read several industry blogs, and performed a Google search to hear what others had to say about the Tintri systems. All of the comments were overwhelmingly positive, according to Reynolds. “Tintri was able to get us a demo system within a week,” Reynolds reported. “The system pretty much set itself up—we were up and running on the Tintri within an hour.”

After a successful test on the demo unit, the City of High Point purchased two Tintri T820 systems and deployed them at separate data centers for production workloads and disaster recovery. “We worked with Trent Steele, a senior systems engineer from Tintri,” Reynolds reported. “He was phenomenal. He not only set up the Tintri system and our network, he also had intimate knowledge on the VMware side. With his expert advice, the entire installation went perfectly and everything worked seamlessly from the very start.”

Better Visibility

“The intended benefit of virtualization is usually simplification, but in reality, it often results in proliferation of technology,” Reynolds explained. “We encountered a lot of network bottlenecks on the NetApp that we couldn’t explain. Tintri provides us with visibility into our entire environment at the VM-level. With Tintri, we can easily see how everything is performing and where the bottlenecks are—and not surprisingly, the issues are rarely due to the Tintri systems. It also tells us exactly where we might have a problem in the future so we can proactively ensure the health of our systems.”

Management Simplicity

Moving to Tintri has enabled the City to eliminate the need to optimize the NetApp environment, according to Reynolds. “If we had stayed on the NetApp platform, we would have had to go through all 15 datastores and rearrange the data in a more manageable way. That involved going into VMware, creating new data stores, and moving data to each server. We estimated that it would be at least a six-month process start to finish. And it wasn’t data we could take off line, it was production data, so everything had to be done carefully. By moving to Tintri, we didn’t have to go through this painful exercise at all.”

The Need for Speed

All of the City’s applications and services are now running at least 50% faster on Tintri. “It’s hard to compare the before and after performance metrics, since we couldn't quantify a lot of this on the NetApp systems,” noted Reynolds. “It just didn’t provide the analytics we needed to understand what was actually going on.”

The move to Tintri also eliminated the problem of one application impacting the performance of another, sometimes called the ‘noisy neighbor’ problem. “Certain processes always interfered with the performance of other processes on the NetApp systems,” Reynolds said. “The cool thing about Tintri is that every application always gets optimal throughput. One process can't impede another one. For example, if we have an email app that has a poor hit rate, it can’t interfere with the hit rate on the SSD of the database like it did before. ”

Cost Savings

“Adding new shelves onto the existing NetApp would have cost us more than purchasing the new Tintri system,” Reynolds said. “But the additional shelves on the NetApp wouldn't have given us as much effective capacity, nor the solid-state front-end. All in all, we’re saving money by moving to Tintri. We were able to purchase 18 effective terabytes of Tintri--plus we got hybrid storage for the same price. We will also save a lot on footprint and power when we finally move the NetApp systems out the door!”

Recommending Tintri to Others

“I would recommend Tintri to any organization that’s running VMware,” Reynolds concluded. “Tintri takes the entire ‘storage equation’ out of the VMware set up. With NetApp, you’re always moving datastores around to get the best performance. With Tintri, you just throw the data out there and it guarantees your throughput. You don’t have to worry about being a storage administrator if you’re the VMware administrator. The bottom line? If you have VMware, you should be buying Tintri. It’s just that simple.”

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