

Nimble Storage InfoSight Simplifies and Streamlines the Storage Lifecycle for the City of Hot Springs

Data sciences-based solution increases visibility into storage environment, simplifies administration, and enables proactive capacity and performance planning.

The Scenic City of Hot Springs Arkansas

The City of Hot Springs, Arkansas (CHSA) takes its name from the natural thermal water that flows from 47 springs on the western slope of Hot Springs Mountain. One million gallons of 143-degree water flow from these springs each day. Studies have determined through carbon dating that the water that reaches the surface in Hot Springs fell as rainfall over 4,000 years ago.

Jeff Winter considers himself to be one of the luckiest IT professionals in the world, being able to live and work in one of the most beautiful places in the United States. “As the IS director for the City of Hot Springs and Garland County, I am responsible for the management and operations of all of the City’s IT infrastructure and services,” stated Winter. “My goal is to provide simple and secure access to all of the City’s information systems, maximize network availability, and ensure that our automated systems can be used to their full potential.”

CHSA’s IT operations group supports a rich mixture of virtualized applications ranging from Microsoft Exchange to Microsoft SQL Server, Oracle databases, Citrix Presentation Server, Microsoft Active Directory and a wide range of file servers. These applications are virtualized on VMware vSphere 5. The team also operates a small scale VDI environment using VMware View. These applications support many different services, from the City and County’s intranet and email systems, all of the local government’s financial applications, its geographical information systems (GIS) services, and multiple databases.

The City’s Storage Challenges

One of Winter’s biggest IT challenges before moving to the Nimble Storage platform was managing the City’s legacy storage environment. “The tools provided by our previous storage vendor were extremely complex,” noted Winter. “They did not provide adequate visibility into the health of our storage environment, making it nearly impossible to diagnose the root cause of any performance issues. As a result, I was unable to catch any issues proactively, or plan for our storage capacity and performance needs.”

The Nimble Storage Solution

CHSA made the decision to switch from its legacy storage environment to Nimble Storage in 2011, with the purchase of two Nimble CS210 arrays for primary storage and a third array for data protection. “I sent an RFP to five leading storage vendors,” Winter recalled. “Nimble won hands-down over all of the other contenders, due in large part to the power and simplicity of its management GUI. And the Nimble solution had the highest projected ROI as well.”



Storage Profile

Customer Challenges

- Previous storage environment was difficult to manage
- Legacy storage tools did not provide adequate visibility into storage health
- Impossible to plan for capacity and performance needs in advance

Solution

- Nimble Storage InfoSight
- Nimble Storage CS210 arrays

Business Benefits

- Provides an intuitive, consolidated view of the status of all Nimble Storage arrays, improving the productivity of the company’s storage admins
- Ensures maximum uptime of the storage environment, automatically opening support cases and notifying IT of any issues before they can impact operations
- Enables accurate capacity and performance planning

“It doesn’t matter how good your storage environment is if you can’t effectively manage it. We realized that Nimble was the best storage platform a couple years ago — but we didn’t know it would get even better. The monitoring, reporting, and proactive support capabilities of InfoSight are simply unmatched by any other storage tools in the industry.”

Jeff Winter
IS Director
City of Hot Springs, Arkansas

When Winter heard that Nimble Storage was introducing an even more powerful data sciences-based storage management and monitoring solution, he jumped on the chance to be among the first give it a try. “The visualization capabilities of the InfoSight Portal are amazing—the interface is extremely intuitive and the information it provides is very comprehensive. The system makes it blatantly obvious how our arrays are doing and what steps, if any, we need to take to make improvements. It far exceeds the functionality of our previous vendor’s tools.”

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InfoSight in Action

CHSA is using the new Nimble data-sciences-based monitoring solution for multiple purposes. “The InfoSight Portal provides a quick, easy, and convenient way to get a consolidated view of the health and status of all three of our Nimble Storage arrays,” noted Winter. “It makes it easy to diagnose any problems with our storage environment. And with the detailed information provided in the dashboards, I can now proactively plan for both capacity and performance.”

The InfoSight Portal consolidates and synthesizes all complex storage health and performance information into an easy to understand, graphical format. InfoSight’s intuitive dashboards provide detailed information on storage capacity, performance, volumes, replication, and asset mapping for all of the City’s storage arrays. InfoSight also provides the ability to track support cases and enables new case creation from one user console.

Leveraging Information from the Intuitive Dashboards

Before launching the InfoSight Portal, Winter had been considering the purchase of a Nimble Storage CS210 expansion unit to increase storage capacity. But after reviewing the analysis and recommendations from InfoSight, he could plainly see that insufficient cache was throttling their rapidly growing applications’ performance. CHSA has now decided to add a fourth Nimble Storage CS220, which will enable the City to increase performance as well as capacity. “We were able to assess our

situation and determine the best option our needs entirely by using the information provided in the intuitive InfoSight dashboards, without spending days to compile and analyze data from multiple sources as we would have done before using InfoSight,” noted Winter.

“InfoSight also provides much deeper insights into how effectively we are utilizing our storage resources,” Winter explained. “For example, when I was checking through the InfoSight Portal dashboards, I noticed that the individual volume supporting enterprise desktop antivirus (AV) management, among other applications, was using far more cache than it should have been. With the information I obtained from InfoSight, I was able to quickly correct this misappropriation of cache resources, and enable the maximum performance of our vSphere applications that really needed it.”

And when needed, InfoSight provides additional drill-down information on metrics such as compression rates and snapshot size. InfoSight also enables Winters to see a comparison of volume size to snapshot size—indicating when snapshots are becoming too large, enabling him to take proactive action before their size becomes a problem.

Benefiting from Proactive Support

InfoSight automatically opens up support cases and notifies the City’s storage administrators when there are issues triggered by certain events. “We recently performed a server upgrade over the weekend, where I had to copy a 300 GB flat file from one virtual machine to another,” reported Winter. “Our IT team started the copy process right before they left on Friday evening. At 9:30 that night, the InfoSight Portal notified me of an issue—the system was running out of capacity. Armed with this knowledge, I fixed the issue before it ran out of space. If not for the timely email notification, this would have been a much bigger problem when I arrived back at work on Monday morning to find that the copy process had failed.”

Conclusion

“It doesn’t matter how good your storage environment is if you can’t effectively manage it,” concluded Winter. “We realized that Nimble was the best storage platform a couple years ago—but we didn’t know it would get even better. The monitoring, reporting, and proactive support capabilities of the new InfoSight Portal are simply unmatched by any other storage tools in the industry.”



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