

Storage Virtualization at City of Inverness

Customer Snapshot

City of Inverness in Citrus County, Florida, has selected DataCore's SANmelody storage virtualization solution to manage and protect their data center. With SANmelody, not only was the City of Inverness able to use existing hardware, it was able to get twice as much use out of its existing storage space as well as adding a new level of business continuity protection and scalability for the future, which the city did not previously have.

The Challenge

When Joey Johnston, IT director, City of Inverness, came on board he inherited approximately thirteen server systems. He knew enough about VMware to know that he could greatly improve productivity and cost savings. Therefore, he decided to consolidate these servers. In order to take full advantage of the functionality of VMware across systems, he also knew he needed to deploy a SAN. Johnston did his research and a key priority at the outset was finding a SAN that would work with VMware and provide a level of automated failover protection. Johnston soon found DataCore in his research and identified the company's SANmelody as a potential solution that supported and was fully compatible with VMware. He also spoke with EqualLogic and LeftHand Networks as well as some other, major SAN solution providers. What Johnston soon realized was that other SAN solutions were not very scalable in comparison with DataCore's SANmelody.

Taking EqualLogic, for example, if he would have purchased a 3TB solution and then needed to add another terabyte or two in the future, he would have then needed to buy another storage hardware module as an upgrade. This could cost \$25,000 just to accommodate the additional storage capacity. Also, while fiber channel (FC) was not an immediate requirement, the fact that SANmelody supported all of its services over FC or iSCSI protocols on Ethernet connections left the option open for the future.

The Solution

"With DataCore, you can simply add an additional license to manage three more terabytes of storage - or sixty terabytes, or an unlimited option," said Johnston. "The high-availability option was also a very big deal as was being able to re-provision servers. We could take a server that might not be up to the task of managing a geographical information system (GIS) or a mail host and re-provision it as a SAN server solution running SANmelody. It is very easy to just add more disks to a SANmelody server, since it is a standard server just like the ones running other applications. You simply populate the SANmelody server with more disks to get to six terabytes in capacity - in our case all for under \$5,000. On another vendor's solution, you will easily spend three or four times the amount just to get the same capacity."

"Budgetwise and performance-wise, SANmelody won out. The performance numbers on SANmelody are right there with any of the top vendors and we are able to use servers that would either be doing nothing or would be offered up for auction. The main business drivers for going with SANmelody were the price point, the scalability, as well as the breadth of storage services that can be taken advantage of with the product."

Joey Johnston,
IT director, City of
Inverness

For more information on storage virtualization, please visit:
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Johnston took about eight weeks in total to make this decision - from his initial introduction to DataCore to signing off on purchasing SANmelody. That time was primarily taken doing some of the underlying work to get his environment ready for the new SAN, such as making sure the switch fabric was up to the task. "I talked and met with each vendor, I attended the webinars they offered and considered the options," continued Johnston. "Budgetwise and performance-wise, SANmelody won out. The performance numbers on SANmelody are right there with any of the top vendors and we are able to use servers that would either be doing nothing or would be offered up for auction. The main business drivers for going with SANmelody were the price point, the scalability, as well as the breadth of storage services that can be taken advantage of with the product."

SANmelody now runs on Dell PowerEdge 2500 servers - servers that would have been decommissioned. SANmelody supports the city's GIS system, which is used to map properties, chart water lines, track tree management initiatives as well as monitor and manage roads and streets for maintenance and usability purposes. SANmelody will go a long way in terms of ease-of-management as the City of Inverness outgrows its direct, attached storage. Of huge benefit to Johnston, who is the only IT person working on behalf of the City of Inverness, is the ability to scale his thirteen servers into one virtual machine. Likewise, consolidated storage and the ability to automate the provisioning of storage to servers without human intervention was a major plus. Furthermore, Johnston is now able to do fast disk-to-disk back-ups and replication and he is able to test these services. Before, he neither had the time nor the funds to buy a server to test back-ups. "SANmelody is all about ease of use and scalability and allows you to have enterprise-level functionality at an SMB price," added Johnston.

The AIM technology DataCore offers for asynchronous IP mirroring enables Johnston to replicate critical data over the Internet. Next year, Johnston plans on fully implementing a remote server at a replication site. With a location smack in the hurricane zone of Florida, the ability to protect data outside of Florida with another local government agency in another state will mean Johnston can achieve a higher level

of disaster recovery as well as have highavailability. He plans to connect to that remote site via a thin-client and do asynchronous data mirroring transfers at night. The replicated environment will encompass both payroll information as well as email on the servers. The financial package, which currently runs on Solaris, is also migrating to Windows and will live on the VMware platform too, all running in conjunction with SANmelody.

"The City of Inverness bought DataCore and VMware in tandem," said George Teixeira, president and CEO, DataCore Software. "They knew they needed to go with a SAN in order to fully leverage the functionality inherent to VMware. Whereas a SAN originally looked cost-prohibitive to the City of Inverness, when Joey found our SANmelody solution he was able to get full functionality without sacrificing his requirements. He was also able to repurpose some of his old servers that he had slated to be retired. Not only has DataCore delivered an affordable SAN, but now he has at his disposal a fully automated high availability SAN that can grow with his needs."

The mail server is in the process of going live this month along with the financial servers and the GIS systems. The deployment at the City of Inverness will first manage six terabytes on a DataCore powered SAN supporting auto failover and recovery across dual SANmelody servers - each supporting three terabytes. When Johnston fields calls now from the other SAN providers who are keen to know why he went with DataCore, he has the answers for them. "DataCore offers up functionality and the most competitive price point," he said. "Moreover, in terms of functionality, I mention high-availability and auto failover data protection as well as AIM - asynchronous mirroring for remote site disaster recovery. And the price point was just over \$15,000 for all that functionality and two licenses. This is less than half of what I was quoted for one box from a traditional SAN hardware solution."

Johnston concluded, "We bought a scalable storage infrastructure and not a box that we would soon find ourselves outgrowing."