



## Storage Virtualization at Dinwiddie County, Virginia

### Customer Snapshot

Dinwiddie County is a county located in the U.S. state — officially, “Commonwealth” — of Virginia. Heritage, natural resources, location, quality of life and people make Dinwiddie County what others are striving to become. Conveniently located near I-85 and I-95 and U.S. 460, 25 miles south of Richmond, Dinwiddie County provides quick access to the East Coast from New York to Florida. The Dinwiddie Airport and Industrial Park provide many opportunities to companies looking for the perfect place to call home.

For government resources, visit: <http://www.dinwiddieva.us/county-depts/>

Dinwiddie County Government in Virginia has deployed DataCore’s SANmelody™ storage virtualization software to empower VMware vSphere. In so doing, the local government has set a new level of uptime for critical applications. Moreover, DataCore enabled Dinwiddie County Government to repurpose resources – rather than buy new equipment.

The bottom-line – now DataCore Software and VMware are delivering an “all virtualized” IT environment for Dinwiddie County Government. This is yet another chapter in the long line of DataCore™ storage virtualization users in state and local governments that literally stretches worldwide.

### Challenge

It was server sprawl that first led this county government to consolidate its physical machines. But various dominos fell thereafter. “Consolidation” quickly drove the need for “high-availability” for this customer. “Dinwiddie County Government put their trust in us to do what was right for them,” stated Chuck Renfro, CEO at Thinking Cap Technologies, the DataCore partner responsible for the implementation. “The IT Department at Dinwiddie County was so pleased to learn that DataCore could take advantage of their existing equipment without having to make any major hardware acquisitions. Beyond this, however, the overarching objective was to keep their applications running on the new, virtualized IT infrastructure without downtime. This was a particular point of emphasis for the Emergency 911 Center and Sheriff’s Office.”

“We were convinced that we needed a robust SAN to support our objective of server consolidation with VMware as well as our desire to achieve high uptime. We are so impressed with our new virtualization environment and DataCore’s role in virtualizing the storage that we are actively encouraging other county governments in our state to do what we have done.”

- Norman Cohen, IT Director, Dinwiddie County Government

## Solution

Dinwiddie County Government now has an IT environment that is totally virtualized. A cornerstone of this implementation has been the DataCore storage virtualization solution. DataCore has enabled the IT Department at Dinwiddie County to get the most out of VMware vSphere and utilize its more advanced functions – such as VMotion – to provide the high-availability behavior that this customer sought.

Now the IT department at Dinwiddie County has a pair of DataCore SANmelody nodes, which are mirrored over the in-place dark fiber between two facilities on the Dinwiddie County Government campus.

“One DataCore-powered SAN is at a facility on one end of our campus and this is mirrored to another DataCore SAN at a facility at the other end of our campus to eliminate any single points of failure,” explained Norman Cohen, IT Director, Dinwiddie County Government. “The synchronous mirroring between the two SANs has enabled us to achieve fault-tolerance for our whole IT environment, and this is something that is particularly mission-critical for our 911 Center. When we conducted a test, we actually pulled the plug on one-half of the system – our production environment – on one side of the campus. The failover DataCore SAN picked this up immediately and kicked in just like it is supposed to. No users even knew that the system had ‘failed’. I cannot stress enough how impressive this was – because everything stayed up and kept running.”

## Results: Meeting Business Objectives

“The flexibility that we have gained with the VMware-DataCore combination is just tremendous for us – allowing us to run on any hardware as well as to re-purpose existing equipment,” added Cohen. “The fact of the matter is that now with DataCore software virtualizing our storage, we are utilizing all of the capabilities that VMware has to offer because we have high-availability and distributed resources doing load-balancing.”

Consisting of only three people, the Dinwiddie County Government IT Department has been impressed by just how DataCore virtualizes storage resources through its software and allows system administrators to pick the hardware of their choice. A fault-tolerant, mirrored SAN solution is a far cry from where the county was, storage-wise, prior to embracing virtualization. The number of physical machines prior to virtualization was six (6). With the newly virtualized environment, two (2) of physical machines are now running twenty (20) virtual machines.

“DataCore’s storage virtualization software solution has allowed us to springboard into the world of virtualization – particularly enabling us to leverage the benefits of VMware,” noted Cohen. “The most important component of our virtualization deployment has to do with virtualizing our disks with DataCore. We can now utilize disk space – no matter where those disks reside on campus. But storage virtualization does so much more than delivering shared storage by way of pooling disks. With DataCore, our IT environment has attained high-availability and fault-tolerance, by way of the synchronous mirroring between two DataCore nodes.”

For more information on storage virtualization, please visit:  
[www.datacore.com](http://www.datacore.com)

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