



## SCOTT COUNTY TAKES ITS SERVERS AND STORAGE VIRTUAL WITH COMPELLENT AND VMWARE



As the 15th fastest growing county in the country, Scott County in Minnesota prides itself on providing state of the art services to its expanding community. To keep pace with rapid growth and continue to support world class services, however, Scott County has had to build a scalable and extremely adaptable IT infrastructure. A VMware customer for more than 3 years,

Scott County realized it was time to enhance its flexibility with virtualized storage.

Todd Croy, Infrastructure Manager for Scott County, was tasked with finding a scalable storage platform that could integrate with a VMware server environment and efficiently replicate VMware instances offsite for robust disaster recovery. “Because of the nature of the data we store, including 911 audio files, legal briefs and crime scene photos, we needed more than a flexible solution,” said Croy. “We needed dependable, fast access around the clock and quick recovery in the event of a virus or disaster.”

When looking for a virtualized storage solution, Scott County evaluated several products. “We tested read/write performance in addition to flexible integration and scalable growth during our selection process,” Croy explained. Compellent was the clear winner. In addition to helping Scott County create a fully virtualized data center, Compellent increased storage performance, reduced the time it takes for file recovery and delivered a reliable remote replication solution. What’s more, Scott County reports this virtualized data center represents an estimated 20 percent reduction in equipment and personnel costs for infrastructure support services.

### Compellent’s Advanced Virtualization Creates a Flexible Data Center

Virtualizing servers and storage into one dynamic pool of resources has significantly reduced Scott County’s IT costs and created an efficient and flexible data center. By combining VMware and Storage Center, Scott County is able to adapt to the changing application needs driven by its rapid population growth. Using these technologies in unison, Scott County can create new server instances on the fly and grow volumes without downtime.

“We found better performance and ease of use in Storage Center’s Data Instant Replay rather than VMware snapshots,” notes Perry Mulcrone, Deputy Chief Information Officer for Scott County. “We use the Instant Replays on a daily basis for development and production server backup and provisioning.”



“There are so many great things you can do when you combine these technologies. Using Compellent and VMware has helped us cut costs, reduce management time, ensure rapid recovery and respond quickly and easily to our changing server and storage needs.”

TODD CROY  
Infrastructure Manager  
Scott County

### RESULTS REPORTED BY SCOTT COUNTY

- » Extremely flexible, virtualized data center cuts equipment and personnel costs for infrastructure support services
- » Boosts storage performance and speeds county services
- » Cuts local recovery time from 1 day to minutes
- » Ensures cost-effective disaster recovery for heterogeneous servers
- » Bandwidth configuration sets replication priorities, cuts replication time in half

### OPERATING SYSTEMS

- » Microsoft Windows
- » Linux

### APPLICATIONS

- » VMware
- » SQL
- » Exchange
- » Websphere
- » ArcGIS
- » Stellent
- » County-specific applications including photo verification

## EASY TO MANAGE

For Compellent customers, easy to use means being able to manage more storage in less time and even accomplish advanced storage tasks in under 10 minutes.

For Scott County, ease of use means not having to train 8 to 10 administrators on a complicated interface, being able to set up remote replication in less than 6 clicks and performance tuning that is done automatically.

“Compellent’s interface beat the competitive systems we evaluated hands down. In our experience, Compellent is definitely the easiest SAN for our technicians to learn and manage.”

TODD CROY  
Infrastructure Manager  
Scott County

## COMPELLENT

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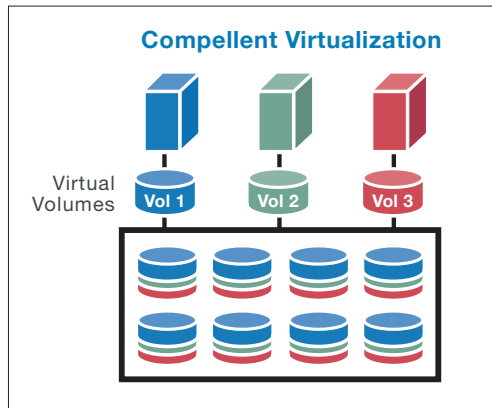
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By using VMware VMotion to move virtual machines from one physical server to another and Storage Center’s Data Instant Replay to enable instant recovery to any point in time, Scott County has created an accelerated test environment. VMotion and Data Instant Replay work efficiently together, allowing Scott County to move real data across server instances and recover to a previous known good state without risk or downtime.

“The Compellent/VMWare combination has greatly improved our development environment,” comments Mulcrone. “Within minutes, our developers can have exact copies of production servers to test and develop upon, greatly reducing the development cycle.”

## Fast Storage Access Improves Services to Citizens

Another advantage Scott County has seen from Compellent’s innovative virtualization technology is improved storage performance.



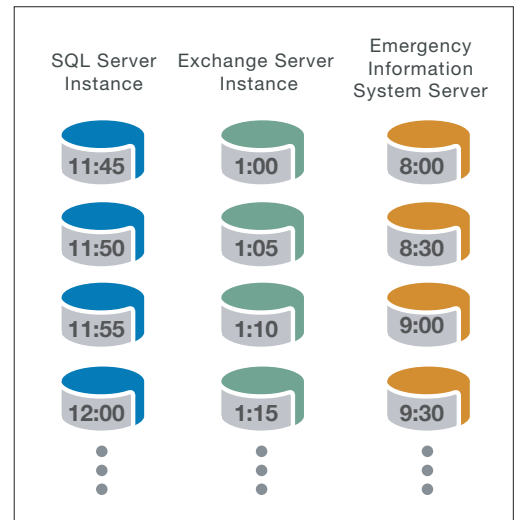
High Performance Data Access: *Disk-level virtualization speeds data access by processing multiple requests in parallel.*

Storage Center’s performance has been a stand out feature for Scott County. “Compellent has proven reliable and robust enough to handle our growing infrastructure and fast enough to actually improve our county services,” said Croy.

This high performance not only makes Scott County’s Exchange and SQL databases run faster, it has a direct impact on the citizens of Scott County. For instance, Scott County citizens and community businesses get quicker results when running map queries on the County’s website for Tax, Real Estate and Land Use information.

## Replays and Replication Cut Recovery Time

All of Scott County’s 911 calls are recorded, stored and archived on Storage Center. To ensure these audio files and all of Scott County’s other data is protected in case of virus or other data hazard, Scott County takes scheduled snapshots throughout the day using Data Instant Replay.



Granular Recovery: *Replays provide fast and easy recovery.*

“Before implementing the Compellent solution, it could take administrators 8 to 12 hours to recover data,” explained Croy. “Now, if we get a virus on one of our VMware instances we can simply revert back to a clean point in time and can be back up and running in minutes.”

Scott County also replicates VMware instances to a remote site 17 miles away using Compellent’s Thin Replication technology, which has cut bandwidth and management requirements in half. To lower the cost of the replication solution even further, Scott County’s remote SAN is configured with affordable SATA drives, and data is asynchronously replicated 24 hours a day over existing fiber for disaster recovery purposes. With Thin Replication, Scott County can improve bandwidth use by customizing transfer rates based on link speed, time of day and replication priority. Additionally, Scott County can easily verify replication success in just a few mouse clicks with no impact on operation.