

## GASTON COUNTY LEADS THE WAY WITH FLUID DATA STORAGE

The residents of Gaston County, N.C., may enjoy magnificent magnolias and a slower pace of life, but they expect performance from social services like emergency medical services, Medicare, Medicaid, child protective services and public safety.

For Brandon Jackson, the county's chief information officer, supporting these programs and the vast amounts of data they produce has been a challenge. The IT team fought to support more than 1,000 IT users at 25 different sites, and disk failures became a regular headache.

The previous IT environment comprised 40 Windows servers with direct attached storage. The county's more than 85 different Microsoft SQL server-based applications struggled to manage the million-plus documents required for state and federal compliance. Gaston County sought to eliminate server sprawl, implement a reliable disaster recovery plan and consolidate applications using Compellent as the storage foundation.

With nearly half of the county's servers nearing obsolescence and plans underway to upgrade a data-intensive ESRI geographical information system (GIS), Jackson decided to modernize the data center. After comparing storage vendors, Jackson selected a Fluid Data architecture from Compellent because of the way its enterprise storage features would redefine efficiency and productivity for the county.

"At the time, our staff spent about 95 percent of our time firefighting, solving everyday issues with our infrastructure," Jackson says. "It wasn't until we started looking at Compellent and the Fluid Data technology that we realized we have a solid system that was reliable and easy to administer as well."

### AN INTELLIGENT SYSTEM THAT AUTOMATICALLY REACTS

Today the IT staff are about 40 percent more productive thanks to the intelligent software applications that automatically react to Gaston County's changing data requirements. The Advanced Thin Provisioning technology allows Gaston County to allocate storage volumes without consuming physical capacity until data is written by the application. This gives Jackson the ability to quickly respond to the common demands for more space without overpurchasing storage capacity.

"The GIS system in particular grows and shrinks rapidly. At the drop of a hat we might need an additional 200 GB for detailed flyover pictures," Jackson explains. "Even our developers are surprised when we only need 15 minutes to allocate the space."

Fluid Data management features build on the patented Compellent® block-level tiering to automatically move the most active data to the fastest drives to deliver highest performance to the applications that are in demand. Using this combined with Thin Provisioning, Gaston County saw reduced disk expenditures, streamlined administration and increased system performance.



"Four years ago we went looking for a solution that was going to accommodate our future needs and growth. Today we know our data is more secure. We know that it is more accessible. We know that it's more reliable than it's ever been in the past."

**BRANDON JACKSON**  
Chief Information Officer

### RESULTS

- » Boot from SAN and virtualization technology has saved over \$100,000
- » Cost-effective disaster recovery ensures compliance legislation
- » Reduced administration saves more than \$50,000 annually
- » Enterprise capabilities lead to \$512,000 in user productivity gains
- » Snapshots provide recovery in minutes instead of days

### OPERATING SYSTEM

- » Microsoft® Windows®

### APPLICATIONS

- » Microsoft SQL Server™, ESRI® GIS, Laserfiche® digital document repository, Microsoft Exchange 2007, VMware® ESX Server



## FEATURES THAT FUND THE FUTURE

Jackson says streamlined administration has played a huge factor in cost efficiency. He estimates Fluid Data management saved the county about \$65,000 in hardware costs and downtime in the first year. Integrating workgroup applications has saved an estimated \$152,500. Adding virtualization, remote replication, an electronic documentation system and other modernization initiatives has contributed a projected annual savings of more than \$512,000 in productivity gains.

“We couldn’t believe how intelligent and intuitive the system was,” Jackson says. “Compellent provided a significant improvement in efficiency, basically by making one change within our infrastructure.”

## ROCK-SOLID RELIABILITY SECURE FROM DOWNTIME AND DISASTER

Since critical citizen services like emergency response teams rely on the county’s GIS applications to react quickly, Jackson knew he needed reliability, availability and security. Jackson installed a second Compellent system for affordable disaster recovery.

By replicating space-efficient snapshots between the primary and remote sites, Jackson was able to satisfy compliance audits. Jackson also replicates golden images of the county’s virtual servers and boots more than three-quarters of his servers from the Compellent system. Locally, snapshots also allow Jackson’s team to easily facilitate vendor upgrades and maintenance by enabling quick back up of vital data.

“Relying on Fluid Data technology has saved us about a third of the costs of replacing our server fleet,” Jackson adds.

Downtime is now a thing of the past. Previous system disk failures typically resulted in a whole day of processing losses. Today, Jackson and his team can respond to issues within minutes to keep users up and running.

## OPEN, AGILE PLATFORM PROVIDES TRUE VIRTUALIZATION

To take advantage of the flexibility offered by virtualization, the county has also created a VMware environment. Compellent storage virtualization pairs seamlessly with VMware technology, enabling the IT staff to switch applications between servers and sites without disrupting users, helping ensure high availability.

As the county continues to offer advanced services, Jackson sees virtualization as key to keeping IT costs down. Several new functions, including a Web server hosting electronic public records, are running in the high-availability, virtualized environment.

“Virtualization will enable us to better serve the public by consolidating IT resources, reducing our data center footprint and improving energy efficiency in the data center,” Jackson says. “Compellent’s virtualized storage is the backbone of our new highly available enterprise environment.”



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