



NetApp®

## Success Story

# City of Evansville Enhances Services, Braces for Growth with NetApp Storage



**KEY HIGHLIGHTS**

**Industry**  
Government

**The Challenge**  
Create a more agile, resilient and cost effective IT infrastructure.

**The Solution**  
Consolidate on NetApp® V-Series Open Storage Controller, replicated to FAS3200 storage system to help enable business continuity.

**Benefits**

- Accelerated data restore processes from weeks to hours
- Reduced storage requirements by 60% with deduplication
- Obtained superior service and thought leadership through greater storage efficiency

### Customer Profile

Located along the banks of the Ohio River in the southwestern corner of Indiana, Evansville is the third-largest city in the state. Evansville is the city seat of Vanderburgh County and the regional hub for both southwestern Indiana and the tri-state area, which includes Indiana, Illinois, and Kentucky. Evansville is home to a regional airport, the University of Southern Indiana, and the University of Evansville. Principal industries include healthcare, financial services, education, manufacturing, and retail. As of the 2010 census, the city's population totaled 117,429.

### The Challenge Enhancing government operations cost effectively

Evansville, Indiana, is a community rich in business opportunities, educational outlets, cultural events, and recreational activities. Immediate access to all major forms of transportation that include excellent road, rail, water, and air transportation systems makes Evansville an important factor in Indiana's economy. Known as the "River City," it boasts a broad economic base that has helped to build a stable, diverse, and vital economy. The City of Evansville government

provides the services that enable the community to continue to thrive.

Behind the scenes, the City of Evansville/Vanderburgh County Computer Services division, managed full time on site by Mark Rolley Consulting, Inc., provides information technology and support for both the City of Evansville and Vanderburgh County. The IT staff supports 62 executive, administrative, fiscal, and judicial offices such as the police department, fire department, and Mesker Park Zoo and Botanic Garden. In total, Computer Services delivers IT services such as help desk, network and server, and application and Web development support for 2,500 city and county employees.

In addition to providing day-to-day IT services, Computer Services has a strategic mission of enhancing government operations, lowering costs, and leveraging innovative technology solutions. Recently, the organization established that the existing SAN environment did not align with short-term and long-term strategic planning. "The storage infrastructure had reached capacity and only a forklift upgrade would enable us to respond to ongoing service demands

“In recent years I’ve witnessed steady data growth and eventually an inability to scale the infrastructure to deliver all of the services requested by the departments we serve. NetApp scalability is a game-changer. Today we don’t have to tell our clients ‘No.’”

**John Staples**

Site Manager, Mark Rolley Consulting, Inc.

and brace for growth,” says John Staples, site manager for Mark Rolley Consulting, Inc.

The Computer Services division had in recent years enhanced its backup and recovery practices with disk-to-disk backup for quick recovery of short-term data and a tape backup system for archival and compliance. However, robust replication capabilities would help elevate the organization’s disaster recovery plan to the next level. The City of Evansville wanted to continue its server virtualization strategy and needed storage that tightly integrated with VMware® technologies. In addition, the organization was investigating a virtual desktop infrastructure (VDI), which would enable a more efficient, resilient client environment, and the division needed storage that could effectively support it.

Computer Services management searched for a new storage solution that provided additional disaster recovery capabilities, VMware support, new cost efficiencies, and the scalability to accommodate growth. Also important, the organization wanted a storage solution that would help avoid an expensive forklift upgrade, and centralize the entire heterogeneous storage environment for IT management efficiency.

### **The Solution**

#### **Consolidated infrastructure at lower costs**

The City of Evansville selected NetApp V3240 Open Storage Controller for its primary data center, replicating to FAS3210 storage system in its disaster recovery site using NetApp SnapMirror® technology. The production environment also includes Cisco® Unified Computing System™ (UCS™) B200 servers and Cisco Nexus® 5010 switches.

“Technology innovation is imperative to not only delivering a more agile and efficient IT infrastructure, but also improving the value Computer Services brings to the city and county governments,” says Staples. “The integrated NetApp storage platform offers important data protection, scalability, and other capabilities that benefit the larger enterprise.”

The team uses SnapManager® products to manage the end-to-end storage infrastructure that supports business-critical environments such as Microsoft® SharePoint® Server 2010, Microsoft Exchange Server 2003 and 2010, and Microsoft SQL Server® 2005 and 2008. SnapManager for Microsoft Exchange Server and Microsoft SQL Server provide the capabilities for protecting these vital environments. Snapshot™ copies produced several times daily help protect all City of Evansville data while

SnapRestore® technology offers easy-to-use restore functionality.

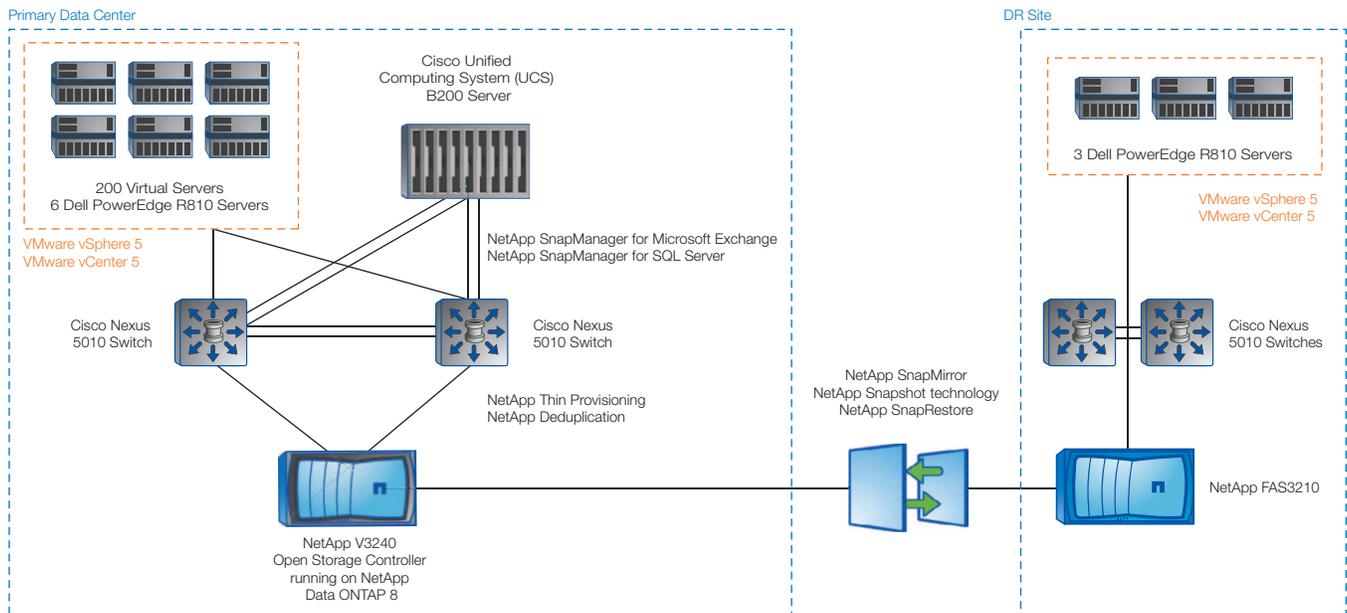
The IT infrastructure is 95% virtualized using VMware vSphere® 5 and vCenter™ Server 5 virtualization software, with 200 virtual servers running on 6 Dell PowerEdge R810 servers. All mission-critical applications such as Microsoft Exchange Server and Microsoft SharePoint Server are virtualized on NetApp storage. The staff can provision virtual servers in its production, Web, and disaster recovery server farms in significantly less time on NetApp storage. In the five years since launching its virtualization project, the organization has reduced 150 physical servers to 10.

IT efficiency from virtualization and other strategies remains paramount to meeting the strict budgetary requirements of the City of Evansville and Vanderburgh County. The IT staff uses NetApp deduplication to increase disk utilization in its primary, secondary, and archival storage environments.

### **Business Benefits**

#### **Enhancing IT service delivery**

From the onset, NetApp storage has helped improve the productivity and services delivered by City of Evansville staff members. “We implemented the NetApp V-Series and FAS system in a live production environment and established our



**Figure 1) City of Evansville Storage Infrastructure.**

The City of Evansville relies on NetApp technology to enhance service delivery by consolidating on a V-Series controller and replicating data to the FAS system in the secondary data center for complete data protection.

disaster recovery practices during normal business hours with no downtime and no impact to end users,” says Staples.

Since then, NetApp storage has empowered the City of Evansville IT staff with the ability to deliver more IT services to city and county employees, and to deploy them more rapidly. “In recent years I’ve witnessed steady data growth and eventually an inability to scale the infrastructure to deliver all of the services requested by the departments we serve,” notes Staples. “NetApp scalability is a game-changer. Today we don’t have to tell our clients ‘No.’”

With the V3240 Open Storage Controller and NetApp deduplication and thin provisioning to help optimize the environment, the IT staff is well positioned to deliver new services when needed. “Computer Services just entered into a new IT service agreement with the Vanderburgh County Courts Prosecutor’s Office,” says Staples. “Besides significantly reducing their costs, we’ll be able to easily accommodate growth from data-intensive court proceeding materials such as voice recordings and legal document images and store them for years to come.”

The consolidated and highly scalable NetApp storage environment is enabling Computer Services to accommodate

the growing data requirements of other busy departments. For example, the team leverages NetApp storage to help the Evansville Water and Sewer Utility meet compliance mandates by providing long-term archival of sewer-line videos. NetApp also provides the storage for areas of significant growth such as the Assessor’s Office GIS pictometry images and the enterprise content management systems that support Administrative Services.

#### **The NetApp storage management difference**

NetApp storage management capabilities are at the center of the effectiveness of the integrated, heterogeneous storage environment. NetApp SnapMirror replication has eliminated previous manual, time-consuming backup and recovery processes while offering a new level of protection for city and county data. Five years ago, retrieving data solely from tape backups could stall staff activities for weeks. Today, local backups can be recovered in minutes, while disk-based site-to-site replication enables IT to recover data from the disaster recovery site in a matter of hours, with a goal of reducing recovery windows to 15 minutes by year’s end.

“Servers and networks are commodities,” says Staples. “But storage is where all of the mindshare resides. Day after day

City and County staffs produce invaluable content that other government employees and the citizens of Evansville and Vanderburgh County depend on. NetApp data protection and disaster recovery capabilities enable us to actively protect it and ensure its ongoing availability.”

#### **A visionary enterprise**

With an agile, consolidated, highly efficient storage environment, the City of Evansville is maximizing its storage investment and creating a more visionary enterprise. “We’ve freed up resources across the organization previously tasked with the day-to-day management and maintenance of a disparate IT infrastructure and standalone systems,” says Staples. “By doing so, our staff can function more as business leaders and we can help the City and County provide better services to their citizens, which is ultimately what we’re here to do.”

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**John Staples**

Site Manager, Mark Rolley Consulting, Inc.

#### SOLUTION COMPONENTS

##### NetApp Products

V3240 Open Storage Controller

FAS3210 storage system

Data ONTAP 8.0 operating in 7-Mode

Snapshot technology

SnapRestore

SnapManager for Microsoft Exchange Server

SnapManager for Microsoft SQL Server

SnapMirror

Thin provisioning

Deduplication

##### Protocols

iSCSI

FCoE

##### Third-Party Products

Microsoft SharePoint Server 2010

Microsoft Exchange Server 2003, 2010

Microsoft SQL Server 2005, 2008

VMware vSphere 5

VMware vCenter Server 5

Cisco UCS B200 servers

Cisco Nexus 5010 switches

Dell PowerEdge R810 servers



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NetApp creates innovative storage and data management solutions that deliver outstanding cost efficiency and accelerate business breakthroughs. Discover our passion for helping companies around the world go further, faster at [www.netapp.com](http://www.netapp.com).

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