Case Study Forum

HIGHLIGHTS

Goal: For Cameron County, Texas to deploy a storage solution to provide disaster recovery, business continuity, redundancy, and high availability.

Solution: HP StorageWorks Enterprise Virtual Array, HP StorageWorks MSL Tape Libraries, HP Data Protector Software, and HP ProLiant DL360 Cluster Servers

Results: Cameron County now has a comprehensive storage and backup solution with EVAs and clustered servers in two locations, allowing the county government to run on a second system, in the event one goes down. In addition, the MSL and Data Protector software ensures complete backups, which are completed inside a smaller backup window. The county has been able to build new mission critical applications, such as software for prosecutors, on top of the HP storage solution, because the solution provides redundancy, high visibility, and disaster recovery.

CUSTOMER PROFILE

Cameron County, Texas
http://www.co.cameron.tx.us/
Cameron County, Texas, the southernmost county in Texas, is one of the fastest-growing areas in the country, and home to beaches, diverse wildlife, and urban areas

Industry: Government

Cameron County Ensures Disaster Recovery, Increases Storage Capacity and Improves Backup with HP StorageWorks Solution

Cameron County, Texas, the southernmost county in Texas, is one of the fastest-growing areas in the country. The county's data center is located at the county headquarters in the county courthouse. The sheriff's department is located ten miles away and is connected to the data center via a dedicated circuit. The sheriff's department runs a Windows FoxPro-based law enforcement package hosted at the county data center.

The county's storage infrastructure was aging, and no longer able to handle the demands put on it by the county and the sheriff's office. The county was looking for a storage infrastructure that would form the basis of a comprehensive disaster recovery system, increase storage capacity, centralize backup, boost performance, and ensure 100% uptime for the sheriff's law enforcement application.

To solve the problem, it chose a comprehensive HP StorageWorks storage and backup solution. Cameron County now has a comprehensive storage and backup infrastructure that offers disaster recovery, redundancy, high availability, and high performance. With EVAs and clustered servers in both the county data center and the sheriff's office, the county has redundant systems. The MSL and Data Protector software ensures that complete backups are made, which are completed inside a smaller backup window. The county has been able to build new mission critical applications, such as software for prosecutors, on top of the HP storage solution, because it provides redundancy, high visibility, and disaster recovery.

Benefits

OBJECTIVE	BENEFITS ACHIEVED
Ensure disaster recovery	With EVAs and clustered servers in both the county data center and the sheriff's office, the county has redundant systems always available in the event of a disaster.
Improve backups	Previous to the solution, backups were not always completed, and often did not finish during their allotted backup windows, taking away network bandwidth. Backups are now always completed, and the backup system has its own Ethernet network with its own bandwidth.
Increase storage capacity	Previous to the new storage architecture, Cameron County was running at 80% storage capacity and was beginning to run out of disk space. With the new EVAs, it now has as much capacity as it requires, and can easily add new storage on an as-needed basis.
Build a future-proof infrastructure	The county has been able to build new mission critical applications, such as software for prosecutors, on top of the HP storage solution, because it provides redundancy, high visibility, and disaster recovery.

The Challenge: Increase Storage Capacity, Improve Backup, and Build a Disaster Recovery Solution

Cameron County, Texas, the southernmost county in Texas, is one of the fastest-growing areas in the country, and home to beaches, diverse wildlife, and urban areas. As of 2000, it had a population of 335,227. Its county seat is Brownsville.

The county's primary data center is located at the county headquarters in the county courthouse. The sheriff's department, located ten miles away in a new facility built in 2000, is connected to the data center via a dedicated circuit. The sheriff's department runs a Windows FoxPro-based law enforcement package hosted at the county data center.

The county's storage infrastructure was aging, and no longer able to handle the demands put on it by the county and the sheriff's office. Cameron County was looking for a storage system that would do the following:

- **Ensure 100% uptime for the sheriff's law enforcement application.** The sheriff's office had no storage or servers, and could not run the law enforcement application if there were a problem with the dedicated circuit to the county courthouse. When the circuit was cut, or there were connectivity problems, the sheriff's office was unable to use its dispatching system or book prisoners into the county jail. The county was looking for a solution that would ensure that the law enforcement application was always available, and could operate independently of the county office in the case of an emergency.

- **Increase storage capacity.** The county's existing storage system was at 80% capacity and running out of space. Storage could not be easily added. The county was looking for a scalable solution that would easily handle increasing amounts of storage.

- **Centralize backup.** The county did not have a centralized storage system, which made managing backups difficult. Individual servers were being backed up to tape libraries, and the county had no simple way to manage its entire storage system, or to easily restore backups.

- **Make sure that all data was backed up.** Backups were not always complete, because there would sometimes be disruptions during the night when backups were slated to take place. The county was looking for a solution that would ensure backups would always be completed, and all data could always be restored.

- **Boost performance.** The existing storage system was aging and slow. In addition, because backups did not always complete in their allotted backup windows during evenings, they would sometimes continue during working hours, using network bandwidth and slowing down applications. The county was looking for a storage system that would improve performance.

- **Form the basis of a Disaster Recovery (DR) plan.** In the event of a disaster, the county could not guarantee that the county government and sheriff's office would be able to continue functioning. It had no redundant storage, so if the county data center could not function, the data would be lost. It was looking for a storage system that would form the basis of a DR plan.

Cameron County Chooses an HP StorageWorks Solution

Cameron County chose a comprehensive HP StorageWorks solution, including two HP StorageWorks Enterprise Virtual Arrays, HP StorageWorks MSL Tape Libraries, and HP Data Protector Software. Cameron County chose an all-HP solution based on its use of HP products and services for more than 20 years,

> " We have a long history of experience with HP's enterprise hardware, software, and services and have found that their total solution offers the most resilient, adaptive, and architecturally sound platform to support the most demanding and mission-critical environments. Based on that and HP's leadership and market share, we rated HP as the best solution for the Cameron County Technology Center. "
>
> Joe Kline
> Enterprise Solutions Group Manager,
> West Technologies Inc.

during which time it has been extremely pleased with the reliability and value of HP hardware, and with the high quality of HP support. The county also determined that an all-HP infrastructure would the best-integrated solution, and would give the county a single point of contact for any technical support issues.

Cameron County Computer Center Director Rudy Juarez says that HP was chosen because the county considers HP a business partner more than a vendor.

"HP has always gone beyond what their service contracts call for, and whenever we've had a problem or a crisis, they've always been by our side, making sure that we solve the problem quickly," he says. "We were choosing a mission-critical system, and we knew that HP would be behind us whenever we needed help."

Cameron County also chose HP because of the high level of technical support provided by their HP enterprise channel partner, West Technologies Inc. West Technologies worked closely with Cameron County from project inception through completion. One of West Technologies core competencies is designing and implementing comprehensive networked server and storage solutions. West Technologies' expertise with the entire HP Enterprise portfolio—from server, disk and tape virtualization to data protection and storage management software—gave Cameron County confidence that they would receive a comprehensive, tightly integrated solution which addressed all of their requirements.

The EVAs offer high performance, high capacity and high availability "virtual" array storage solutions. They reduce IT costs and complexity, and save time, space and costs compared to traditionally architected storage, and are supported by a powerfully simple suite of management software making it easy for users to achieve highest level of productivity.

The MSL provides centralized backup in a single automated device, freeing valuable IT resources for more strategic work. It offers a scalable, flexible, and manageable centralized tape backup solution that can grow with ever-changing backup and recovery needs, while reducing IT staff involvement. It can scale to larger configurations by enabling a single library to grow and change with capacity and technology as needs require.

HP Data Protector Software automates high performance backup and recovery, from disk or tape over unlimited distances, enables 24x7 business continuity and improves IT resource utilization. Data Protector Software responds to the pressure for lower IT costs and greater operational efficiency by offering acquisition and deployment costs which are 30 to 70% less than competition.

The county planned to convert the FoxPro law enforcement application to a Microsoft SQL Server application, and to aid in the conversion, it purchased HP ProLiant DL360 Cluster Servers. The ProLiant DL360s will optimize the application for redundancy and replication in a clustered environment.

Cameron County Benefits from the New Storage Infrastructure

With the HP solution, Cameron County now has a comprehensive storage and backup infrastructure that offers disaster recovery, redundancy, high availability, and high performance. With EVAs and clustered servers in both the county data center and the sheriff's office, the county has always-available redundant systems. The MSL and Data Protector software ensures that complete backups are made, which are completed inside a smaller backup window. The county has been able to build new mission critical applications, such as software for prosecutors, on

> "HP has always gone beyond what their service contracts call for, and whenever we've had a problem or a crisis, they've always been by our side, making sure that we solve the problem quickly."
>
> Rudy Juarez
> Computer Center Director
> Cameron County

■ Cameron County now has a comprehensive storage and backup solution with EVAs and clustered servers in two locations, allowing the county government to run on a second system, in case one goes down. In addition, the MSL and Data Protector software ensures complete backups, which are completed inside a smaller backup window. The county has been able to build new mission critical applications, such as software for prosecutors, on top of the HP storage solution, because it provides redundancy, high visibility, and disaster recovery.

top of the HP storage solution, because it provides redundancy, high visibility, and disaster recovery.

Before the new solution was in place, Cameron County could not function in the event of a disaster taking down its data center. Its new infrastructure includes EVAs and clustered servers at both the county data center and the sheriff's office. The EVAs use continuous access to replicate data at both locations, and if the data center crashes, the EVA and clustered servers are available in the sheriff's office.

The new solution also ensures that the sheriff's office has always-on, reliable access to its law enforcement application. With the new infrastructure, the law enforcement application runs in the sheriff's office itself, rather than remotely in the county data center. Problems with the circuit between the sheriff's office and the data center will not affect the sheriff's office. Additionally, if the servers and EVA in the sheriff's office experience trouble, the sheriff's office can run the law enforcement application remotely from the data center.

Previous to installing the new storage architecture, Cameron County was running at 80% storage capacity and was beginning to run out of disk space. With the new EVAs, it now has as much capacity as it requires well into the future, and it can easily add new storage on an as-needed basis. It can also manage increasing amounts of storage easily without having to add staff.

HP Data Protector Software and the MSL have sped up backup times, so that backups always complete in their backup windows. This has helped improve overall productivity, because the backup process does not use network bandwidth during working hours, and application performance has been improved. To further improve performance, the county installed a private local area network specifically for HP Data Protector Software, so that it could perform backups on its own Ethernet line, rather than use the primary county network.

――――――――――――

About Cameron County
Cameron County, Texas, the southernmost county in Texas, is one of the fastest-growing areas in the country, and home to beaches, diverse wildlife, and urban areas. As of 2000, it had a population of 335,227. Its county seat is Brownsville.

About West Technologies
Headquartered in Austin, Texas, with offices in Houston and Dallas, West Technologies provides a wide variety of information technology products and services. It delivers comprehensive solutions and consulting services, including network security, server and storage virtualization, applications, and system support. For more information, see http://www.buywest.com/.

About Hewlett-Packard Company, StorageWorks Division
HP is a technology solutions provider to consumers, businesses and institutions globally. The company's offerings span IT infrastructure, global services, business and home computing, and imaging and printing. HP StorageWorks solutions help enterprises optimize current resources, manage multivendor environments and evolve to open architectures. For more information on how working with HP can benefit you, contact your local HP representative, or visit HP at www.hp.com.

About Case Study Forum
Case Study Forum is the leader in the writing and production of ROI-focused Case Studies. In addition to a customer success story, each ROI Case Study provides insight into the business impact — the revenue, productivity and cost savings the customer achieved as a result of the investment made in the solution or service. For more information, please contact Case Study Forum at 508-380-8886, or visit www.CaseStudyForum.com.

March 2007