

Huntington Bancshares



SOLUTION SNAPSHOT

Huntington has replicated its business applications, EMC software, and storage between two data centers located more than 10 miles apart.

- Primary Applications:** Core financials, FileNet loan document imaging, check imaging, human resources, fraud detection, Lotus Notes e-mail, Illumin e-mail archiving, Oracle, Microsoft SQL Server, DB2
- EMC Software:** SRDF/Synchronous, SRDF/Cluster Enabler, Replication Manager/Remote, EMC Data Manager (EDM), TimeFinder/Mirror, TimeFinder/Consistency Groups, EMC ControlCenter®, VMware®
- Storage Infrastructure:** 160 terabytes of EMC storage, including EMC Symmetrix networked storage, CLARiiON CX700 Fibre Channel and ATA disks, CLARiiON Disk Library, and Centera Compliance Edition Plus; McData switches, IBM FICON
- Processing Environment:** IBM mainframe; Sun Solaris, IBM AIX, Novell NetWare, and Windows NT servers

BUSINESS VALUE HIGHLIGHTS

Profile: Huntington Bancshares, Incorporated is a \$32 billion regional bank holding company headquartered in Columbus, Ohio.

Challenge: Huntington needed an enterprise-wide business continuity strategy to ensure data protection and meet regulatory requirements within a complex technical environment, driven by internal service level agreements and high customer expectations.

Business value: Huntington, using EMC business continuity software, tiered storage, and the expertise of EMC Services, has better understood and aligned the technology and processes for backup, recovery, and archiving, and has been able to achieve:

- Recovery-time/recovery-point objectives of zero for the most critical applications and four hours or less for other critical applications
- Reduction in restore time for critical applications from four hours to nearly immediate by utilizing backup-to-disk
- 80 percent decrease of high-end storage formerly required for storing images of loan documents, which are now archived directly to online content-addressed storage
- Shrinking of backup windows by archiving directly to content-addressed storage (CAS) and reducing the amount of data on production systems
- Significant cost savings due to simplified and automated replication, backup, recovery, and archiving; near elimination of tape and tape handling tasks; freeing up of high-end storage for other applications; and tiered, differentiated levels of protection
- Automatic creation of common recovery points for data across multiple tiers of servers to ensure complete and consistent backups

Huntington Bancshares saves money, protects diverse applications with ILM

In banking, as in so many other industries, customers demand that services be available whenever desired. The challenge for banks is not only to earn the trust of their customers in this demanding environment, but to retain that trust over the long term. That requires assurances that information is both protected and accessible continuously. As a result, enterprise-wide business continuity strategies are more important than ever.

Huntington Bancshares Incorporated, a \$32 billion regional bank holding company headquartered in Columbus, Ohio, understands these demands well. To serve its customers with the highest levels of quality and responsiveness, Huntington has implemented different levels of protection through data replication, backup, recovery, and archiving using a broad range of EMC® storage, software, and services. As a result, the bank has significantly increased the speed of recovery and reduced the costs of managing its 160-terabyte EMC storage infrastructure.

“Archiving our FileNet data directly to Centera has allowed us to reduce the amount of tier 1 storage formerly dedicated to loan documents by 80 percent. This has allowed us to reclaim high-end storage space, redeploy it for other critical applications, and delay the acquisition of new storage.”

Todd Baumann

Vice President and Director of Enterprise Business Continuity

Huntington Bancshares

Todd Baumann, Huntington’s Vice President and Director of Enterprise Business Continuity, said, “In the last 20 years, banking has changed dramatically from a 9 o’clock to 3 o’clock operation to one that is open around the clock, seven days a week. With online banking, 24 x 7 call centers, ATMs, investment services, and more extended-hour branches, our customers want access to their money and financial services whenever they need them, day or night. In response, we turned to EMC to help us develop a business continuity strategy that addresses the growing demand for data availability. EMC had the range of advanced storage and business software and deep business continuity experience we needed to deploy tiered replication, backup, recovery, and archiving strategies across our IT infrastructure.

“With EMC, we have embraced information lifecycle management (ILM) to deliver the right level of security and access based on business needs, costs, regulatory requirements, and customer expectations. No longer do we need to provide the same level of backup and recovery for every application. With a more customized approach, we dramatically lowered our costs by moving less critical data to more appropriate storage that does not require advanced functionality. So we could lower costs, while freeing up high-end storage for our most critical data. The result is an airtight, integrated business continuity solution for our entire banking enterprise.”

Developing a strategy with EMC’s business continuity expertise

With a complex technical environment consisting of high-end mainframes and servers, along with both mid-tier and low-end servers, Huntington understood that no single solution would meet the wide-ranging needs of its business units. Therefore, the bank conducted an internal assessment of requirements across the business to define a range of recovery-time objectives (RTOs) and recovery-point objectives (RPOs). RPO is the measure of how much work-in-progress a firm could afford to potentially lose without jeopardizing

the business. RTO defines the amount of time a business can afford to be without its systems and information, measured from the beginning of an outage until the systems are operating again. Outages can result from many types of events, including severe weather, local or regional electrical brownouts, human errors, and even the accidental discharge of fire sprinklers.

“We first sought to identify the tolerance levels for how much data an individual business unit could afford to lose in the event of an outage without causing irreparable harm to the bank and our customers,” said Baumann. “In some cases, the answer was zero; in others it was seven days. Based on those requirements, we then turned to our EMC group and challenged them to provide a set of technical solutions to meet our various recoverability requirements.”

EMC Services assisted Huntington with design and implementation of its business continuity and networked storage infrastructures. Most recently, EMC Services assessed Huntington’s environment against IT Infrastructure Library (ITIL) criteria, a standard set of processes and disciplines aimed at improving management and delivery of storage-based services to internal clients, and then provided ITIL recommendations.

Scott Vandergriff, Huntington’s Manager of Enterprise Infrastructure, said, “We have identified EMC as an essential partner for both advanced technology and expertise that is strategic to our business objectives. EMC’s consulting services played a key role in helping us design and implement a business continuity solution that provides tiered protection to meet the full range of our recoverability requirements.”

“The best restore times we could expect with the offsite tape process would have been four hours. With CLARiiON Disk Library, we have nearly immediate recoverability. Another important benefit is that the disk library tracks much lower levels of discrete units of work, which not only allows us to recover data much closer to real time, but also to synchronize recovery points for multiple tiers of servers within a much more narrow window.”

Scott Vandergriff
Manager of Enterprise Infrastructure
Huntington Bancshares

High-end business continuity provides critical protection for core business applications

Working closely with Huntington’s internal IT staff, the EMC Services team implemented a comprehensive business continuity solution employing a variety of EMC storage and software for automated data replication, backup, recovery, and archive.

“EMC provides the high-performance replication capabilities and flexibility we need to meet a range of business continuance objectives, spanning from days to immediate recoverability,” said Baumann. “EMC’s software solutions are a powerful way to ensure high-end data protection while simplifying replication processes. With EMC, we have the confidence that our critical data will be available, even in the event of a disaster, so we can maintain high-quality service to our customers and preserve the vital interests of our business.”

Huntington’s critical tier-one financial applications, which generate images of checks, online customer statements, and other financial reports, utilize high-end EMC Symmetrix® systems as the primary storage devices. Huntington uses EMC SRDF®/Synchronous

(SRDF/S) software to synchronously replicate this data from Symmetrix storage at the bank's primary data center to Symmetrix storage at its remote site a dozen miles away, with an RPO of zero.

For its Trust Advantage application, Huntington has coupled SRDF/S with SRDF/Cluster Enabler for Microsoft Cluster Server (SRDF/CE for MSCS) software, which provides the ability to monitor both the data being replicated via SRDF/S, as well as the health of the applications and servers to ensure all of the components are linked together and can be failed over in the event of an outage.

The combination of these advanced EMC technologies, along with additional server capabilities, allows the bank to achieve a true RTO/RPO of zero for its most critical information and applications, which would not have been possible otherwise. For other critical applications, the bank is able to meet its RTO/RPO of four hours or less.

Tier-two applications, also running on the Symmetrix, include Oracle, Microsoft SQL Server and DB2 applications with RTO/RPO objectives of 24 hours. Huntington uses SRDF/Automated Replication (SRDF/AR) software to replicate this data on a once-per-day cycle to achieve the required 24-hour RTO/RPO.

For test and development, as well as non-critical applications with RTO/RPO objectives of 72 hours, Huntington uses EMC TimeFinder[®]/Mirror software to create local point-in-time business continuance volumes (BCVs) of data on the production Symmetrix, and copy the BCVs to the remote Symmetrix using SRDF/AR. In this configuration, SRDF/AR provides an efficient means to incrementally transfer large updates of data between the data center and recovery site, creating another tier of protection that satisfies less stringent business continuity requirements. A key benefit of standardizing on the SRDF family of products for Huntington was the ability to share the communication equipment and links among all the SRDF-based processes, significantly reducing the cost and complexity of remote replication.

To further automate and simplify all the tiers of long-distance replication, Huntington uses EMC replication technologies to create policies that streamline routine tasks, reducing the time and cost of the replication processes. EMC Replication Manager/Remote software also provides alerts whenever defined events occur so that issues can be resolved more quickly to minimize any disruption to the business.

"The automation capabilities we gain from EMC's business continuity software are instrumental in achieving superior levels of availability while still being able to lower the costs of managing our data recovery solutions," noted Baumann.

Backup-to-disk leads to lower costs, faster recovery

To complement the long-distance replication of data, Huntington has implemented a sophisticated backup-to-disk and recovery strategy using the EMC CLARiiON[®] Disk Library (CDL) and EMC Data Manager (EDM[™]) software to back up data stored on Symmetrix. Data from the local Symmetrix is first written to the local CDL and then from the local CDL to a remote CDL at the bank's disaster recovery site. The result is a rapid, cost-effective alternative to tape backup.

Prior to implementing the CDL, Huntington relied primarily on tape backup at the production location, which required an outside vendor to pick up the tapes on a daily basis and store them offsite. In the event of a disaster or data corruption, Huntington would have to contact the tape storage vendor, have the tapes physically transported back to the bank, find the correct tapes, load, and then inventory them all before they could start the restore process. In addition to the labor required to manage this process, tapes remained vulnerable during the window of time between creation and pickup, and Huntington was at fur-

ther risk should the tapes be lost in transit. Today, the tape process has been eliminated for all but its least-critical applications, improving data protection and security by keeping near-line data on disk for easier identification and disk-to-disk restoration.

“The best response time we could expect with the off-site tape process would have been four hours, and that was just to get the tapes returned here onsite,” said Vandergriff. “To get fully restored could require several hours beyond that. With the EMC CLARiiON Disk Library, we have nearly immediate recoverability. Also, TimeFinder/Mirror allows us to easily create more frequent point-in-time instances of the data that we then copy to the CDL. This not only allows us to recover data much closer to real time, but also synchronize recovery points for multiple tiers of data within a much more narrow window.”

“No longer do we need to provide the same level of backup and recovery for every application. With a more customized approach, we dramatically lowered our costs by moving less critical data to lower-cost storage, freeing up high-end storage for our most critical data. Plus, we have employed more economical backup and recovery solutions.”

Todd Baumann

Vice President and Director of Enterprise Business Continuity

Huntington Bancshares

One of the most challenging aspects of achieving RPOs in a complex IT environment is finding common points at which the data from multiple applications can be restarted. Because information is shared continuously across computing resources, Huntington must ensure that common recovery points among those applications are identified in the event that the data must be restored. For example, prior to implementing the EMC solution, data from a UNIX server might be backed up at midnight, while data from a mainframe might be backed up at 2 a.m. In order to attempt a restore from tape, Huntington would have to manually identify the one common timestamp at which the data from both servers might be restorable.

Using EMC TimeFinder/Consistency Groups along with the CDL solution, Huntington has completely eliminated this problem. Huntington uses TimeFinder/Mirror along with TimeFinder/Consistency Groups to create a common, consistent point in time set of BCVs across all applications and systems. This consistent point in time allows Huntington to coordinate BCVs across multiple servers simultaneously to ensure a common restart point for all application data.

“With tape, we might have to go out 12 hours on one platform and 24 hours on another to find a common synch point,” said Baumann. “That means one of our platforms would lose a lot more data. With TimeFinder/Consistency Groups, we automatically get a complete and consistent set of data—across both our mainframe and open systems environments—that we can then back up to the CDL. So, we now have the ability to meet the more demanding RPOs our business units require, rather than forcing them to compromise because of limitations in the technology.”

Vandergriff added, “With the CLARiiON Disk Library, we’ve been able to eliminate both the hard cost and labor associated with tape. So instead of having to buy the tape media and hardware to do the replication, and then paying to have the tapes picked up and housed offsite, we now do our backups directly to a local disk library. We also replicate the same data to a remote CDL at our remote site over the network. It’s a much more cost-effective and less-disruptive approach.”

Freeing up storage and shortening backup windows

Certain applications, such as FileNet document management, which supports Huntington's mortgage process, and Lotus Notes e-mail, which supports its broker/dealer operation, require long-term retention. To ensure critical data protection, Huntington archives its images of loan-related documents directly to EMC Centera™ Compliance Edition Plus content-addressed storage (CAS) based on policies set within the FileNet application. In addition, Huntington uses Illumin software to archive Lotus Notes e-mails on Centera Compliance Edition Plus to ensure compliance with strict SEC regulations, such as Rule 17a-4, which mandates that financial services companies retain e-mail correspondence for a minimum of five years, and that during the first two years of that period the e-mail be readily accessible. FileNet and Lotus Notes data is also written simultaneously to a remote Centera device at the bank's remote site using EMC Centera replication software.

"The EMC Centera solution addresses two of our most strategic priorities: compliance and business continuity," said Baumann. "By archiving images of our loan documents and e-mail files onto online content-addressed storage, we not only ensure regulatory compliance, but we also reduce the amount of data we need to store on the highly functional tier 1 systems, which helps reduce our total cost of ownership. In fact, archiving our FileNet data directly to Centera has allowed us to reduce the amount of tier 1 storage formerly dedicated to loan documents by 80 percent. This has allowed us to reclaim high-end storage space, redeploy it for other critical applications, and delay the acquisition of new storage."

Vandergriff added, "With archiving, there's simply less data in our production systems to back up, which allows us to shrink our backup windows significantly. That also means less impact on our production systems for backup processes, which improves overall performance. Plus, Centera is much easier to manage than our former tape backup process."

Matching the right data protection strategy to meet business needs

EMC business continuity has helped Huntington Bancshares advance its data protection and regulatory compliance capabilities to a whole new level. The bank is achieving significant cost savings, while streamlining its backup, recovery, and archive processes.

"Our needs are changing all the time," said Vandergriff. "EMC provides us with new flexible storage options and business continuity strategies we need to address those changes—quickly and cost effectively. For example, we've discussed using EMC software to target and delete certain categories of data based on parameters we set. This capability will free up even more of our storage for other applications and lower our costs. Tools like these decrease the amount of data we must store, backup, restore, and archive, helping us dramatically simplify and strengthen our business continuity strategy."



EMC Corporation
Hopkinton
Massachusetts
01748-9103
1-508-435-1000
In North America 1-866-464-7381

EMC², EMC, EMC ControlCenter, CLARiiON, Symmetrix, SRDF, TimeFinder, and where information lives are registered trademarks and Centera and EDM are trademarks of EMC Corporation. VMware is a registered trademark of VMware, Inc. All other trademarks used herein are the property of their respective owners.

© 2005 Copyright EMC Corporation. All rights reserved. Published in the USA. 6/05

Customer Focus
H1655