

HUNTINGTON NATIONAL BANK

Huntington National Bank provisions for major acquisition with EMC Global Services ITIL Process Transformation projects



ESSENTIALS

Challenges

- Data access and reliability
- Redundant data

Solutions

- EMC VNXe
- VMware

Key benefits

- A single unified storage solution protects information and makes it easily accessible from any application
- Information access is now two times faster
- Storage utilization has improved by 75 percent
- Provisioning storage and creating virtual machines can be done in under one minute
- Ongoing server and storage management time has been reduced by 80 percent
- Scalability can be leveraged to meet future requirements
- Exceptional ROI: pays for itself in one year

Huntington National Bank (HNB), a subsidiary of the \$54 billion dollar Midwestern bank holding company, Huntington Bancshares Inc. offers a comprehensive portfolio of retail and commercial financial services to customers from over 600 banking offices in Indiana, Kentucky, Michigan, Ohio, Pennsylvania, and West Virginia. HNB also serves customers through a network of almost 1,400 ATMs, a 24-hour telephone bank, and online via huntington.com.

A history of mergers and acquisitions has marked much of the company's 140+ years of operation and continues with Huntington Bancshares Inc.'s latest acquisition, Sky Financial Group Inc., which was completed this past year. The acquisition of Sky Financial Group Inc. ranked as the 43rd largest publicly held bank holding company in the nation, now positions Huntington Bancshares Inc. among the top 25 domestically controlled banks in the country. The acquisition also has helped Huntington Bancshares Inc. expand its presence in the midwest and opened up new markets in the east including western Pennsylvania and Pittsburgh.

Successfully integrating the customers and operations of an institution half the size of HNB meant addressing several key challenges. A long-time customer of EMC, with major installations that support a powerful, highly available, and flexible EMC® tiered storage infrastructure, Huntington engaged EMC Global Services to facilitate Information Technology Infrastructure Library (ITIL) Process Transformation assessments. Built upon successful high-level EMC ITIL and IT Service Management (ITSM) Optimization engagements in 2004 and 2006, these assessments were designed to help HNB further develop strategies to accommodate immediate workload expansion requirements and position the company for future growth.

EMC Global Services also conducted a raised-floor Energy Efficiency assessment to help HNB provision adequate power and cooling resources to support the Sky Financial Group Inc. integration as well as future expansion. This engagement is detailed in the companion document: *Huntington National Bank gets energy efficient with EMC*.

Over the course of nine weeks, EMC ITSM consultants carried out a comprehensive evaluation based on ITIL best practices. The work encompassed assessments of HNB's storage management operations and service capabilities with respect to availability and capacity management, and helped identify key gaps in the delivery of storage services. Actions necessary to implement and integrate these processes over short- and long-term periods were presented in formal reports.

“With the recent Sky Financial acquisition, and Huntington’s intention to acquire other banks in the future, we wanted to ensure that we were on the right track in efficiently using our EMC storage and controlling short- and long-term total cost of ownership,” says Jim Rohal, manager of Enterprise Storage. “We were confident that the ITIL Process Transformation evaluations would help us get the answers we needed to accomplish our goals.”

Implementing and maintaining effective storage capacity management practices is expected to yield a cost savings of \$276,000 within the first year of implementation with a cumulative benefit of \$2.2 million within three years.

STRENGTHENING STORAGE CAPACITY MANAGEMENT

The Storage Capacity Management Process Design project, part of the EMC ITIL Process Transformation Assessment, was initiated to help HNB improve ongoing efforts to effectively manage storage capacity in the areas of resource capacity management, service capacity management, and business capacity management.

Guided by storage capacity management leading practices and information gathered in a comprehensive interview process, the project involved evaluating daily operational activities and determining baseline metrics, with a focus on storage capacity planning, monitoring/reporting, analysis, tuning, and implementation of all storage services under the control of HNB’s storage group.

Based on the findings, recommendations were made to optimize HNB’s current storage environment and facilitate accurate forecasts for future storage demands. The storage environment includes storage arrays (open/mainframe), SAN and NAS environments and associated switches and network components, under- or over-utilized database and file systems, and backup and recovery systems.

“The EMC team dug right in and exceeded our expectations,” says Rohal. “They did a great job getting everyone talking, and were able to facilitate many discussions with groups that we interface with both inside and outside of IT. They were also meticulous in documenting all of the information coming in and provided check points along the way to let us know how things were going. It went very smoothly.”

ANALYSIS UNCOVERS OPPORTUNITIES FOR IMPROVEMENT

Initial investigations revealed that the current state of HNB’s storage capacity management practice activities, related to resource storage capacity management, were informal and focused primarily on individual components within HNB’s storage infrastructure. Service storage capacity management activities addressing live operational storage services performance were not uniformly practiced and service-level objective agreements (SLOAs) and operational-level agreements (OLAs) were not formalized, monitored, or measured. In addition, HNB’s business storage capacity management activities were limited and only partially integrated with storage capacity management practices which made it more difficult to effectively plan, finance, and implement storage services in a timely fashion to meet future business requirements.

Critical to achieving high levels of data utilization is the ability to measure and manage against pre-determined thresholds. At the time of the evaluation, HNB’s storage infrastructure consisted of approximately 223 terabytes of primary storage with an annual storage growth rate of approximately 25 percent. Baseline analysis conducted on all of the storage systems and 190 hosts resulted in an average storage system utilization¹ of 74 percent, volume group utilization² of 91 percent, and an average file system utilization³ of

¹ Storage system utilization refers to the percent of useable storage capacity that has been allocated for use by application environments and is no longer part of the storage free pool.

² Volume group utilization refers to the percent of total volume group capacity that is allocated for use by host file systems.

³ File system utilization refers to the percent of total file system capacity that is used by application data.

59 percent. This information revealed areas of opportunity for improving data utilization. Based on leading practices, recommended storage system utilization should be managed between 70 to 90 percent, volume group utilization managed at or near 98 to 1.

“Raw storage is one of the biggest investments we make as a company,” says Rohal. “Although everyone says that storage is inexpensive, since the acquisition, we’re now managing nearly a half a petabyte of raw storage and we want to ensure that we are using it as resourcefully as possible.”

Overall, while there were many available data sources and informal practices, there was a lack of integration with an overarching storage capacity management practice. For example, a contributing factor to the low utilizations was related to approval of storage requests without sufficient investigation of the business need or against a formalized Capacity Plan. Additionally, improving, automating, and incorporating reporting, trending, and forecasting capabilities where needed would facilitate more accurate predictions on future demand and help drive up application data utilization. Both are key factors in reducing the overall cost of the storage infrastructure and better aligning storage needs with business requirements.

A ROADMAP TO IMPROVED STORAGE CAPACITY MANAGEMENT

Supported by EMC Global Services, HNB’s objective for improving resource storage capacity management is to identify and understand the capacity and utilization of each component in the IT Infrastructure. This helps ensure optimum use of the current hardware and software resources and achieve and maintain agreed upon service levels. For service storage capacity management, HNB’s goal is to identify and understand its IT services so that service performance can be managed and aligned based on targets contained in SLOAs. HNB’s intent for business storage capacity management is to ensure that the future business requirements for IT services are considered and understood, and that sufficient storage capacity to support the services is planned and implemented within an appropriate timeframe.

To help HNB’s storage group reach these objectives, EMC consultants formulated a customized, multifaceted storage capacity management plan. Detailed within the plan are position summaries, areas of responsibility, and activities required by key participants. The capacity process owner’s role is to direct the overall process and act as a liaison with the business and the storage capacity practice. One or more capacity coordinators perform the technical tasks associated with storage capacity management monitoring, analyzing, tuning, implementing, and reporting. Both roles are vital to the successful implementation of the storage capacity management plan. After initial implementation, the capacity process owner and capacity coordinator(s) will be active throughout the year in planning, tracking, and forecasting.

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MANAGER OF ENTERPRISE STORAGE

Also included are storage capacity management process recommendations established from a framework for leading practice storage capacity management based on ITIL. This change management framework, which incorporates planning monitoring, analyzing, tuning, and

implementation activities, has been integrated into a customized process plan designed to help HNB reach its storage capacity management goals. The relationship storage capacity management will have with other processes is also detailed both visually and in written format to help the storage group clarify how the storage capacity management process interfaces with the other ITIL processes such as storage performance management, storage service-level management, storage incident and problem management, storage change management, storage release management, storage configuration management, storage financial management, storage IT service continuity, and storage availability management.

The nine-step process plan outlines a continuous, repetitive series of steps which cover the activities, participants, and other details necessary for effective storage capacity management. A standardized set of tools, resources, and documents required to support and help automate the process plan is also detailed. It includes the creation of a storage capacity management database (updated to reflect all activity); EMC StorageScope™ software for the creation of spreadsheet-based reports on storage usage; Microsoft Excel based capacity report/plans; the establishment of a daily storage dashboard; a business management view system tool which enables the server group to request additional storage via a web-based interface; and the K-Form document which facilitates the submission of new storage requests via a work flow system.

“The Excel spreadsheet that we use, and the reports produced out of this engagement, have given us more control and enabled better follow through across our tiered storage environments, including the mainframe piece,” says Rohal.

Defined policies governing the storage capacity management process are offered to guide administration as are recommendations for handling exceptions, penalties, and non-compliance issues.

To ensure efficiency and effectiveness and to validate that storage capacity management information reaches the appropriate audiences in a timely manner, the process must be reviewed at regular intervals. It is also important that the process be reviewed and updated periodically to accommodate any significant changes in the business, the technology, or other evolutionary events. Process maintenance activities are outlined to help ensure continued success.

Also provided are baseline metrics for monitoring and analyzing the storage capacity environment. The impact of implementing and managing based on these metrics is also detailed. Key performance indicators (KPIs) are offered as well to gauge process effectiveness.

To facilitate a streamlined implementation process, which is currently underway, the EMC team created a roadmap for HNB’s storage group. Recommendations are divided into pilot phase (two weeks), short-term (up to three months), medium-term (up to six months) and long-term (up to 12 months) segments.

LEVERAGING THE ADVANTAGES OF EFFECTIVE STORAGE CAPACITY MANAGEMENT PRACTICES

The benefits of implementing and maintaining effective storage capacity management practices is expected to yield a cost savings of \$276,000 dollars within the first year of implementation with a cumulative benefit of \$2.2 million within three years through the ability to drive volume group utilization to 98 percent and file system utilization to 75 percent.

Easier, more effective storage forecasting, providing a quicker and more accurate response to storage requests, will also help ensure investments are made only at appropriate times. Urgent changes and impulse purchases resulting from inadequate or incorrect storage capacity estimates will be dramatically reduced or eliminated. The purchasing process also benefits because last-minute or excessive purchases of storage capacity, too far in advance of the business need, will be minimized.

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Of added benefit is that there will be less business disruption due to closer involvement with storage change management and storage performance management ITIL processes when determining the impact on storage capacity. Because storage capacity will be consumed more efficiently, there will also be reduced storage capacity-related expenditures.

A MORE PROACTIVE, DEFINED APPROACH TO STORAGE AVAILABILITY MANAGEMENT

Also part of the EMC ITIL Process Transformation work is the Storage Availability Management Process Design project. The objective of this project is to optimize the storage infrastructure and associated services to help ensure that availability needs are consistently and reliably met.

The scope of the project involved improving storage availability planning, monitoring, tuning, and reporting, under the control of HNB’s storage group, to facilitate a more proactive, well-ordered, and cost-efficient approach for ensuring appropriate levels of service are delivered to HNB’s storage customers.

The process will drive the physical deployment of hardware and software, service levels necessary to meet availability requirements, and disaster recovery/business continuity commitments. The storage availability management framework encompasses storage arrays (open/mainframe); SAN/NAS devices; databases and associated applications; and related switches, fiber, and components within HNB’s main data and recovery operation centers. EMC consultants gathered information through interviews and documentation which included various Excel spreadsheets to track availability metrics.

During the initial discovery phase of the project, it was revealed that most elements of storage availability management including communication, escalation, and reporting were being performed by HNB’s storage group using an ad-hoc and often reactive approach. There was a need to more formally define storage availability management policies within the storage group as well as facilitate a more proactive system for planning, analysis, trending, and utilization. Primary roles and responsibilities also needed to be defined and designated to help ensure a successful storage availability management practice.

“The EMC team was cognizant of the fact that we were in the middle of an acquisition and made every effort not to get in the way of the normal business activities,” says Rohal. “They put everyone at ease with their professionalism. They took the time to learn our environment and work with it rather than come in and insist on changing everything.”

A PROVEN METHODOLOGY FOR ENHANCING STORAGE AVAILABILITY MANAGEMENT

Working within a design, implement, monitor, and review framework developed to provide a foundation for best practice storage availability management, EMC consultants created a formal document outlining the necessary processes, policies, roles, tools/automation, reporting, and maintenance activities to help ensure best practices for facilitating a sustained level of access to satisfy HNB’s business objectives. Details were also provided regarding how storage availability management activities would integrate with and support other ITIL processes including capacity, change, configuration, IT financial, and service continuity management to ensure a broad service delivery methodology.

An eight-step process plan created for HNB covers the activities, participants, tools, documentation, timing, and other details necessary for effective storage availability

management. An accompanying set of recommended policies governing the storage availability management process was created to help guide administration.

Position summaries, activities, skills, and other parameters for executive sponsor and storage availability management owner roles, necessary for the management of the storage availability management practice, were also provided.

Availability reporting metrics, their descriptions, and measurement parameters are offered to support progressive measurements on the effectiveness of storage availability management enhancements.

Process maintenance activities are also covered and include recommendations for an annual review of the storage availability management process, the maintenance of storage availability definitions linked to hardware and software deployment standards, and the need for regular discussions of process issues to facilitate greater responsiveness to concerns as they arise.

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Automation functionality/requirements necessary to support storage availability management have been detailed as well. They include greater use of the centralized management and reporting capabilities of EMC Ionix™ ControlCenter®; integration of availability management with problem management processes; automated reporting for historical/trend analysis; and utilization of a configuration management database, which is now being developed to assist in infrastructure improvement planning.

In addition, a roadmap divided into pilot phase (two weeks), short-term (up to three months), medium-term (up to six months) and long-term (up to 12 months) segments details recommendations for keeping implementation, now in process, on track.

EXPECTED BENEFITS FROM IMPROVED STORAGE AVAILABILITY MANAGEMENT PRACTICES

Full implementation of enhanced storage availability management practices is expected to improve the storage group's ability to meet availability needs across the enterprise. Storage services and architecture will be designed to meet the availability requirements defined by the business. Agreements regarding levels of availability required will be made and then measured and monitored to fully support storage service-level management. By establishing levels of availability, business users can be more easily assigned to different tiers of storage based on their needs and associated costs.

In addition, the ability to incorporate defined storage availability key performance indicators and metrics into a consistent reporting scheme will enable proactive management. Shortfalls in the delivery of the required levels of availability will be more easily identified and appropriate corrective actions can be implemented. The frequency and duration of storage service failures will also be reduced over time.

EMC GLOBAL SERVICES LEADS THE WAY TO EFFICIENCY AND COST SAVINGS WHILE ACCOMMODATING MASSIVE EXPANSION

Findings and recommendations from the EMC Global Services ITIL Process Transformation engagements have enabled HNB to successfully navigate the integration of the Sky Financial Group Inc. acquisition. They have also positioned HNB's storage team to more effectively, reliably, and cost-efficiently manage storage availability and storage capacity in alignment with current and future business needs.

"The ITIL engagement was phenomenal," says Rohal. "The EMC consultants were very knowledgeable and came up with some great ideas to help us meet our objectives. They also worked very well with the people on our team. It was absolutely worth it."

CONTACT US

To learn more about how EMC products, services, and solutions can help solve your business and IT challenges, contact your local representative or authorized reseller—or visit us at www.EMC.com.

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