Solution Brief

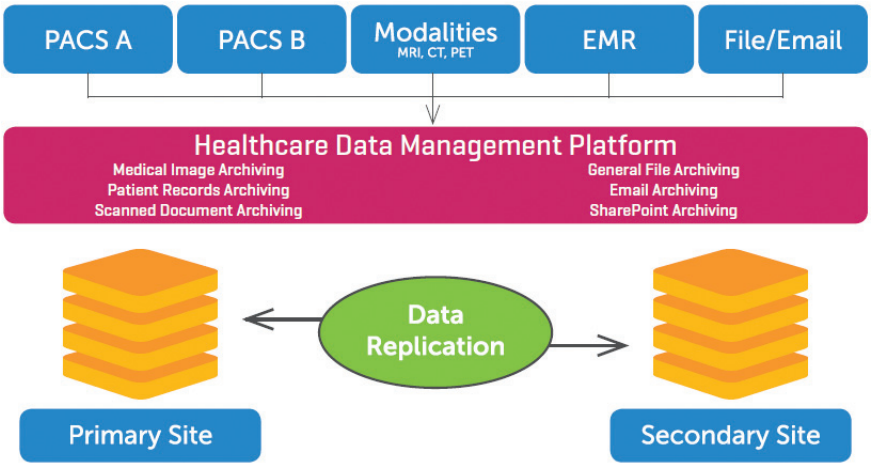
# A comprehensive medical archive for your hospital

The Dell and BridgeHead Medical Archive Solution can offer:

- Seamless integration into your healthcare data environment
- PACS (DICOM), patient records and unstructured content management
- Self-replicating and self-healing storage infrastructure
- Scales to billions of objects
- Cost effective, low TCO, high ROI

Dell and BridgeHead Software have joined forces to create a medical archive to manage all of your hospital's data. In combination with Dell's DX Object Storage Platform, BridgeHead's Healthcare Data Managment solution offers comprehensive protection for all of your hospital's critical clinical and administrative content. BridgeHead can provide the effective capture, management, and control your data while the DX™ Object Storage Platform is designed to provide scalable, secure and cost effective storage for billions of unstructured items.

**Dell and BridgeHead offer a comprehensive Medical Archive for your hospital's data storage**




## Why do you need an Medical Archive Solution?

Clinical systems are the lifeblood of healthcare IT. Traditionally, the Hospital Information System (HIS) has been the application at the center of this environment. But HIS data will only ever grow to a few hundred gigabytes over years of use, perhaps reaching the terabyte range at large multi-facility organizations. The real challenge for hospitals is in managing the ever growing data resulting from clinical images created by Picture Archiving and Communication Systems (PACS) and scanned patient records from Document Management and Imaging (DMI) systems or Enterprise Content Management (ECM) solutions.

PACS are commonplace today. Found primarily in Radiology, PACS generate terabytes of data each year for hospitals. As other clinical disciplines (e.g., Cardiology, Pathology and Ophthalmology) increasingly adopt digital imaging technology, terabytes of data can quickly close in on a petabyte or more. What's unique about imaging data is that it is unchanging. While the associated meta-data may be altered, a chest x-ray, for example, does not change once committed to disk storage. Furthermore, the frequency of access to this data decreases dramatically 90 days after its creation. After 12 to 14 months, there is a less than 2%[1] chance this data will ever be accessed again.

In addition, terabytes of new data is created every year by hospitals moving towards paperless environments and/or introducing Electronic Healthcare Records (EHRs). As they scan and digitize information — attaching it directly to the HIS or EHR, or making it accessible via a Document Management and Imaging (DMI) or Enterprise Content Management (ECM) solution — a typical hospital requires approximately 60 gigabytes per bed per year[2]. That equates to 6 terabytes of storage for a modest 100-bed community hospital — a number that does not include the data resulting from the retroactive scanning of warehoused documents.

In combination, clinical images and scanned patient documents make up the vast majority of data and storage utilized in hospitals today. However, it is easy to see the management challenges these systems present to healthcare IT, particularly around the storing, protecting and sharing of data.

## BridgeHead's medical archiving solution offers:

- Reduced data and storage management costs
- Greater control, flexibility and availability of data across the infrastructure
- Increased data security and protection in the event of system outage or disaster
- Efficient management of growing data volumes by archiving static data from primary to secondary storage
- Automated data optimization and advanced data services e.g. encryption, authentication, de-duplication, retention management
- Adherence to healthcare standards such as DICOM, HL7, XDSi interfaces etc.

## Healthcare Data Management for Clinical Data

BridgeHead's Healthcare Data Management solution can enable your hospital to manage and control clinical documents, records, and images in a searchable, centralized repository integrated to the Dell DX Object Storage Platform.

- DICOM Storage Class Server
- HL7 interface
- Integration with file system content
- Content and meta-data index
- Full search
- Web portal access

## Healthcare Data Management for Administrative Data

BridgeHead's Healthcare Data Managment solution also equips your hospital with the tools to manage email, documents, presentations, and other non-clinical content vital to running the business of healthcare.

- Microsoft® Exchange Storage Management, Compliance Journaling, and PST Migration
- File System Archiving from Windows® and Linux File Systems
- Direct integration with Microsoft® SharePoint® Server
- Content index and search
- Web portal access

## DX Object Storage integration

The Dell DX Object Storage Platform is designed to help you intelligently access, store, protect and distribute all of your fixed digital content. Based on pre-defined policies, you can easily compress objects in-location with the DX Object Storage DX6000G Storage Compression Node functionality. The benefits include optimizing your storage utilization for archived images and reducing the foot print of the dataset.

- Automated and secure policy-based retention, replication, distribution & deletion
- Built-in replication and self-healing functionality to minimize IT staff demands
- Standards-based x86 hardware and integrated software in an end-to-end solution
- Easily integrated into your existing storage infrastructure
- Compression functionality, based on 'lifepoints' with a choice of fast or best compression algorithm
- Multi-tenancy with domain specific authentication
- Named streams allow easier identification of objects

## Services to help find the right solution

The joint Medical Archive solution with the DX Object Storage Platform and BridgeHead's Healthcare Data Management products is one of many solutions that Dell can provide to meet your specific needs. Leverage the Dell Healthcare Consulting Services industry experts to design and implement a Medical image and data Archiving solution tailored to your organization.

*[1]Based on testing conducted by BridgeHead Software using their FileScan free utility.*
*[2]Based on research conducted by BridgeHead Software in 2009 during conferences, exhibitions and seminars in the US, Canada and UK.*

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