

DICOM Archiving Agent

DICOM images from PACS are growing exponentially and are providing hospitals with some of their largest data management challenges in terms of storage, protection and sharing.

BridgeHead's DICOM Archiving Agent provides a standards-based interface to allow all DICOM compliant systems within an organization to use a centralized storage facility for DICOM data. The Agent supports standard DICOM methods [such as C-Store and C-Find] in interacting with BridgeHead's underlying Healthcare Data Management [HDM] Platform. The DICOM Archiving Agent is a core component of BridgeHead's Vendor Neutral Archive [VNA] solution.

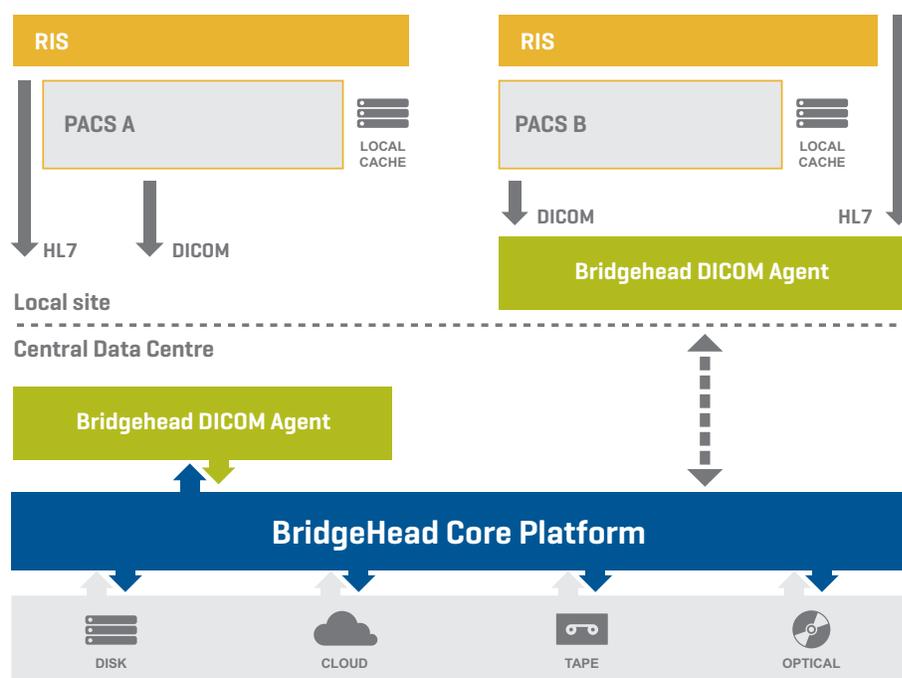
KEY FEATURES

- ▶ Standards-based implementation of DICOM 3.0
- ▶ Published DICOM conformance statement from BridgeHead [available on request]
- ▶ Creates and maintains a meta-database of all content residing in the BridgeHead repository allowing rapid search
- ▶ DICOM Part 10 storage format, placing meaningful content on disk with the option to have additional security and efficiency policies applied [e.g. encryption]
- ▶ DICOM Storage commit mechanism ensures data governance across disparate systems
- ▶ Integrates with BridgeHead's XDS solutions, specifically XDSi [including WADO]
- ▶ Tag translation capabilities
- ▶ Supports pre-fetch and demographic updates
- ▶ Offers a variety of custom API's to use non-DICOM methods to access images
- ▶ Provides full auditing
- ▶ Integrates into BridgeHead's HDM platform for comprehensive data protection and storage management

Technical Overview

Like all BridgeHead Agents, the DICOM Archiving Agent aims to make integration into the data environment simple and efficient. By closely following DICOM standards, the DICOM Archiving Agent can easily interact with nearly all PACS applications.

In a typical scenario, the DICOM Archiving Agent works with more than one PACS simultaneously. This significantly lowers the total cost of ownership of the PACS by creating a single, central archive – while still allowing for the logical segregation of data, should it be required.



The DICOM protocol does not cope well with wide area networks [WAN] and this can lead to challenges. If inconsistent networks are supporting a PACS application, then the DICOM protocol will often timeout and the PACS can hang. To ensure that this problem is minimized, BridgeHead's DICOM Archiving Agent can be deployed centrally (along with the Healthcare Data Management [HDM] Platform) or close to the PACS – this allows the Agent to communicate over the slow WAN to the central resources, ensuring the primary PACS is not affected.

Easy To Implement; Easy To own

Whatever processes a hospital is using, the only change to the PACS will be to modify the existing workflow to determine when to send data to the archive and how to request data back from the archive. The DICOM Archiving Agent means that migrations are no longer a headache – migrating PACS or migrating storage systems now becomes a core facility, not a constant pain. Furthermore, writing content out to DICOM part 10 [optional] means that any organization is constantly in control of its own data.

Beyond DICOM

The DICOM Archiving Agent is the gateway to better data integration by facilitating non-DICOM access to data 'harvested' from the PACS. Already out of the box, the DICOM Archiving Agent will create the key object selection [KOS] for integration into an XDSi infrastructure as well as support for a wide range of custom API's and web services. The DICOM Archiving Agent offers non-DICOM systems the ability to gain access to DICOM data e.g. if a PACS writes data via the DICOM protocol, that data could be accessed through a portal, via a custom web service.

Migration Services

BridgeHead offers a comprehensive DICOM migration service that can help hospitals populate their DICOM archive. This professional service will audit DICOM objects and test data quality, all the way through to a controlled migration (including the cleaning of data) before it is sent to the BridgeHead DICOM Archiving Agent.

Functional Specification

- ▶ BridgeHead's core services run on Windows Servers – 2003 or 2008, 32 or 64 bit
- ▶ In high bandwidth environments, the BridgeHead DICOM Archiving Agent and associated infrastructure can be located centrally, creating one system to support multiple PACS
- ▶ In a low or inconsistent network environment, the BridgeHead DICOM Archiving Agent and associated infrastructure can be placed close to the PACS to avoid timeouts by sharing a common environment in a central location
- ▶ To determine whether a hospital's PACS environment can properly integrate with BridgeHead's DICOM Archiving Agent (or a VNA in general), a number of key questions need to be answered:
 - ▶ Can the PACS send content to an external SCP?
 - ▶ Can the PACS request content from its internal cache and an external SCP?
 - ▶ Does the PACS support DICOM Storage Commitment?
 - ▶ Does the PACS have a mechanism for supporting pre-fetch?
 - ▶ What mechanisms do the PACS [and RIS] use for communicating demographic updates?

For more information on how BridgeHead Software can help lower the cost and administrative burden of managing your healthcare data, contact us at: info@bridgeheadsoftware.com or visit us at: www.bridgeheadsoftware.com



With 20 years' experience in data and storage management, and 10 years in healthcare, BridgeHead Software is trusted by over 1,000 hospitals worldwide.

Today, BridgeHead Software helps healthcare facilities overcome challenges stemming from rising data volumes and increasing storage costs while delivering peace of mind around how to **STORE**, **PROTECT** and **SHARE** clinical and administrative information.

BridgeHead's Healthcare Data Management [HDM] solutions are designed to work with any hospital's chosen applications and storage hardware, regardless of vendor, providing greater choice, flexibility and control over the way data is managed, now and in the future.

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