

A Content Aware Enterprise Strategy as The Foundation for Enabling Clinical Exchange

Content Aware Enterprise Strategy



- Interoperability in healthcare is being driven by the regulatory, clinical and financial imperatives
- Infrastructure connects the workflow elements across entities
- Clinical applications define models of departmental workflow
- The most efficient for scalability, security and performance is to share data through a content aware enterprise storage strategy
- Long-term compliance is assured with IHE methodology

Clinical, Regulatory and Financial Drivers



- Healthcare's continuum of care reaches across multiple providers
 - More chronic care on the horizon with aging population
 - Driving the need for higher utilization are reduced reimbursements
- The reliance on information exchange has not changed but the professional and personal expectation is greater because of the digital format
- Digital data exchange introduces new challenges to healthcare IT
 - Security and audit tracking of access is a paramount concern
 - Changes in data retention now that it is shared
 - How do smaller organizations manage the data to be compliant with HIPAA requirements

Interoperability Drivers



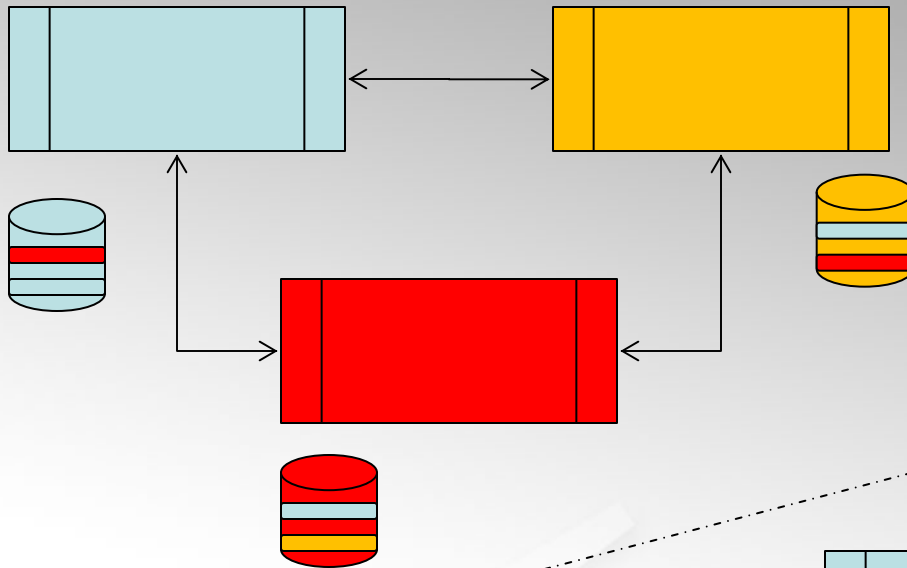
- Transition from custom interfaces and media for information exchange in IHE conformance of Actors and Profiles
- Positive Impact in the digital exchange
 - Reduction of costs– in both time and labor to assemble
 - Speeds system adoption
 - Simplifies authorization through standardized identity
 - Improves quality of care and delivery of care decisions
- Pressures to reduce healthcare costs
 - Increase in levels and span of the continuity of care from acute to ambulatory
 - Push into home healthcare delivery

Workflow Imperative



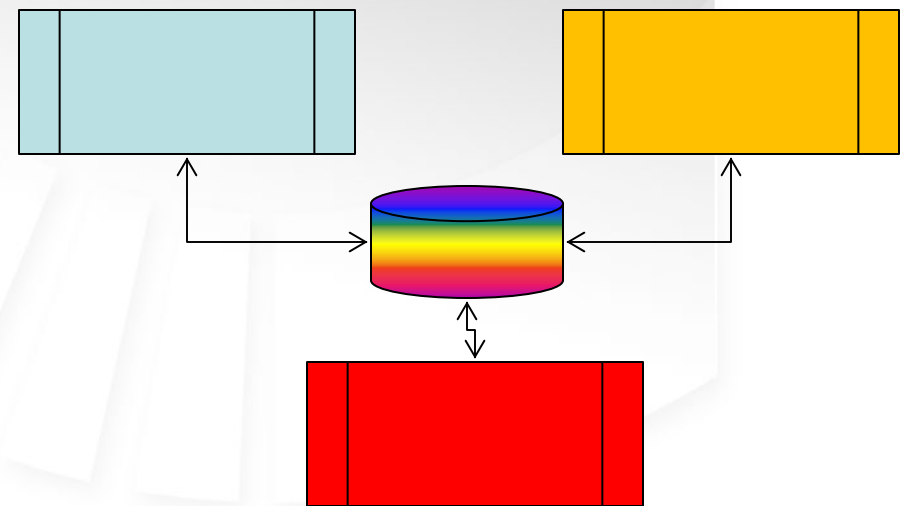
- Clinical scenarios drive the flow of information
 - Scenarios are subordinate to the implementations of the clinical application presenting digital information to clinicians
 - IHE implementation must allow for greatest flexibility for data access
- The complexity of clinical applications has grown
 - Incorporation of multiple data source interfaces
 - Algorithms for information presentation
 - Hanging protocols
 - Contra-indications
- Data management can be independent of the clinical application providing the following benefits
 - Improved portability of information
 - Greater flexibility to support rapidly changing solutions for long-term data management
 - Service oriented architecture for infrastructure

Traditional Versus Data Management Centric



Data exchange through interfaces at each application cause data replication with each application storage

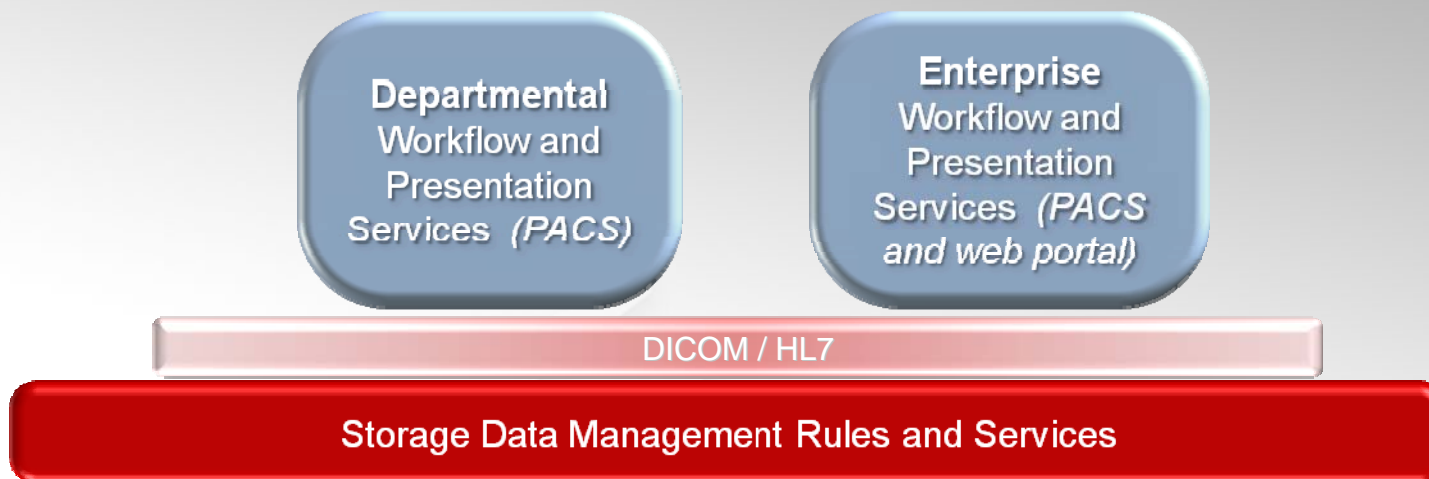
Data exchange through common storage reduces data management complexity, reduces cost and increases scalability



Content Aware Enterprise Storage



- Emergence of vendor-neutral archive
 - Standards-based storage foundation as the core data management and business continuance services

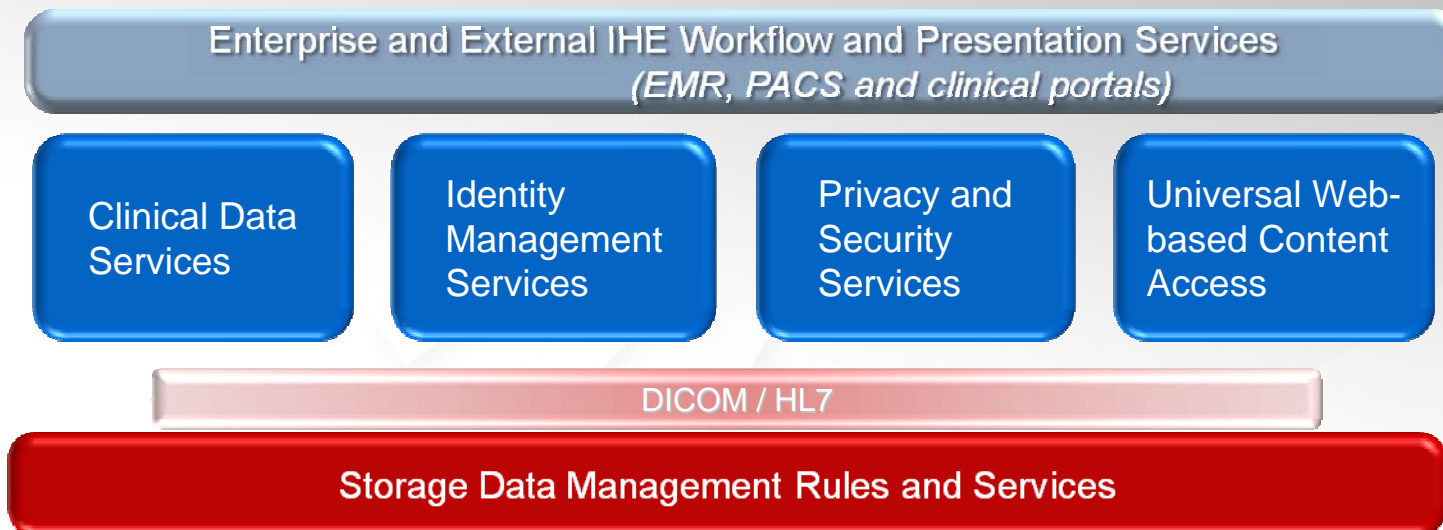


DICOM/HL7 alone are only elements of an enterprise archive but security, audit and permissioning requires XDS extensions

Content Aware Data Management as a Foundation for Sharing Clinical Data



- Leveraging the storage foundation as the core data management and business continuance services into an XDS enabled enterprise



IHE Profiles for the Enterprise Archive Image Document Source and Consumer



- [CT] [Consistent Time](#) ensures system clocks and time stamps of computers in a network are well synchronized (median error less than 1 second).
- [ATNA] [Audit Trail and Node Authentication](#) authenticates systems using certificates and sends PHI-related audit events to a repository to help implement confidentiality policies.
- [XDS-i.b] [Cross Enterprise Document Source](#) registers and shares electronic health record documents between healthcare enterprises, ranging from physician offices to clinics to acute care in-patient facilities and personal health records.
- [XDS.b] [Cross Enterprise Document Sharing](#) registers and shares electronic health record documents between healthcare enterprises, ranging from physician offices to clinics to acute care in-patient facilities and personal health records.
- [PIXv3] [Patient Identifier Cross Referencing](#) cross-references patient identifiers between hospitals, sites, health information exchange networks, etc.
- [PDQv3] [Patient Demographics Query](#) lets applications query a central patient information server and retrieve a patient's demographic and visit information.
- [BPPC] [Basic Patient Privacy Consents](#) provides a mechanism to record the patient privacy consent(s), a method to mark documents published to XDS with the patient privacy consent that was used to authorize the publication, and a method for XDS Consumers to use to enforce the privacy consent appropriate to the use.
- [XCA] [Cross-Community Access](#) allows to query and retrieve patient relevant health data held by other communities. Such communities may be XDS Affinity Domains which define document sharing using the XDS profile or any other communities, no matter what their internal sharing structure.

IHE Profiles are in place or in trial to create secure, scalable exchanges as an extension to standards-based archives

Getting Started



- Your Motivation
 - Consolidation in data centers should not only be about the physical storage but about creating information and understanding on how this transformation can lead to long-term efficiencies in system integration, sharing for meaningful use and operational cost savings

- Can this help deliver an EHR/PHR?
 - Clearly a internal mechanism that assures the right patient information is accessed with permission and auditable is a key in patient satisfaction
 - Having an infrastructure that unites silos of data provides a complete picture of the patient information which leads to higher quality patient care and positive outcomes

InSite One – Harnessing the Power of IHE



- A content aware enterprise strategy achieves a patient-centric view of data that becomes the foundation for enabling the clinical exchange
 - IHE Demonstration as document source
 - Emergency encounter with imaging requirement

- Thank you for your time. Questions ?

- InSite One, Inc.
 - Largest managed HIE to include medical imaging with over 650+ sites with the ability to share data through their enterprise archive using IHE actors and profiles
 - Demonstrate Image-enabled IHE services with
 - MEDecision PHR
 - Misys Open Source Software Portal
 - Visit www.insiteone.com/why-dicom.php

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