

Sharing clinical documents using IHE specifications

Optimal patient care requires efficient access to relevant clinical documents

IHE Cross-Enterprise Document Sharing (XDS) is an international solution defined by the Integrating the Healthcare Enterprise (IHE) of using an ebRegistry (OASIS and ISO standard) to share electronic documents. The IHE XDS Integration Profile (IP) addresses the interoperability problems inherent in sharing electronic healthcare records between different IT systems and is rapidly being adopted around the world (national programs from Austria, Italy, USA, Canada, France and several regional projects).

IHE XDS supports a wide range of documents including structured documents, PDF and DICOM images. It supports the use of documents that may include textual and coded sections allowing an easy progression to automatic information search while supporting existing clinical practice. The basic XDS functionality has been extended to support specific types of documents including XDS-I for DICOM images, XDS-MS for HL7 CDA Medical Summaries, and XDS-Lab for structured laboratory reports.

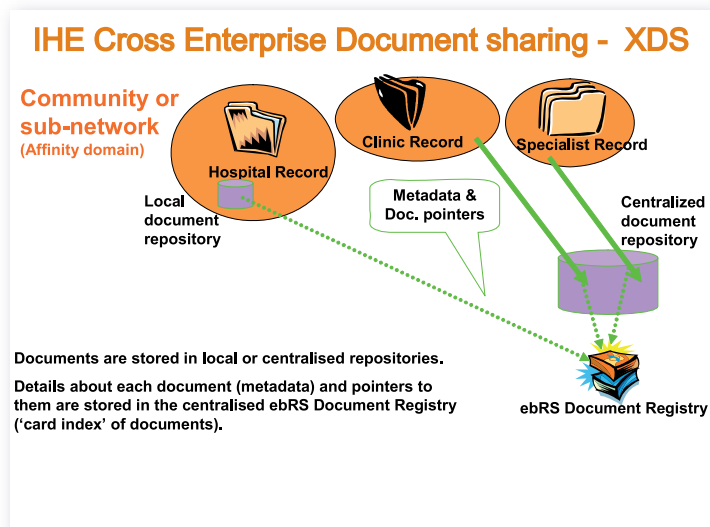
XDS is an IHE Integration Profile that supports a number of different use cases for clinical document sharing.

A group of enterprises (hospitals, hospital departments, community centres, laboratories etc.) agree to share docu-

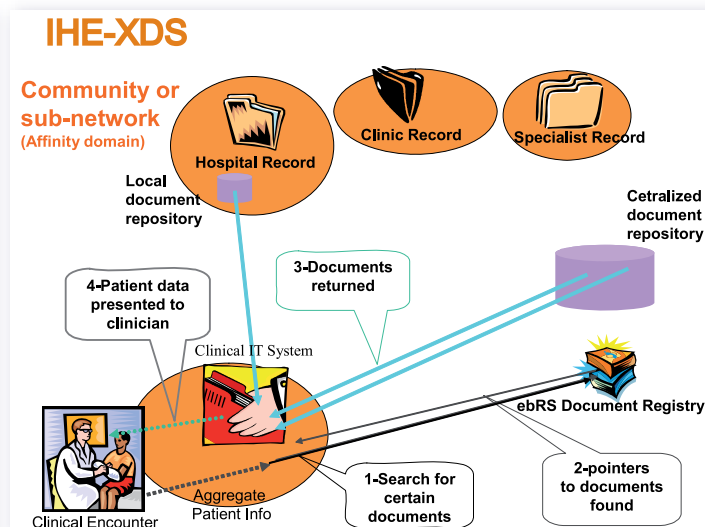
ments of a given type (Reports, Discharge Summaries, Results etc.) and given format (PDF, CDA, plain text, rtf, DICOM image, etc). To illustrate one use case, assume a patient visits one of the participating enterprises. When a document is produced, a copy of it is stored either in a local or a centralised document repository. In either case an entry is made in a single centralised registry which includes information about the document.

A clinician can use an application to search the registry by patient identity, date, class of document, specialty, etc. He/she can then review selected documents. A notification may be sent to relevant clinicians that a document is available for review. XDS also supports applications that can perform automatic analysis of the content of retrieved documents that contain coded information to generate reports of trends in measured values, for example.

IHE has specified a number of companion profiles to XDS to support patient identification management (PIX, PDQ), security and privacy (ATNA, CT, BPPC, XUA), and document content (XDS-Lab, XDS-MS, XPHR, XDS-I, etc.), thus supporting core interoperability for regional and national health information exchange and shared EHRs.



Storing documents in archives and information about a each document in a document registry entry



Searching the information in the registry entries, selecting documents for retrieval and display

The full details can be found in the following documents:

IHE IT Infrastructure Technical Framework Revision 4.0 August 22, 2007 Vol.1 (ITI TF-1): Integration Profiles Vol.2 (ITI TF-2): Transactions. These documents may be freely downloaded from www.ihe.net Follow Resources/Technical Frameworks/IT Infrastructure.