

Leading by example

IHE participants promote interoperability by building systems that conform to an industry-wide framework for implementing standards. More than 200 healthcare vendors worldwide offer ready-to integrate products to benefit healthcare enterprises of all sizes. CIOs and clinicians appreciate the positive impact IHE has made on radiology, cardiology, laboratory and enterprise infrastructure as well as powerful cross-enterprise healthcare infrastructures.

IHE is being leveraged by National and International Initiatives. In April 2006, the International Organization of Standardization (ISO) granted Integrating the Healthcare Enterprise (IHE) liaison D status to make standards-based IHE integration profiles a formal part of the ISO balloting process and ISO deliverables. This status will make global standards more accessible for the EHR.

IHE integration profiles have been adopted by National and Regional projects in European countries such as Austria, France, Italy, Spain, Switzerland, The Netherlands, and around the world in countries such as Canada, China, Japan, South Africa, USA. These specifications provide the necessary guidance to implement the specific standards and profiles in commercial and self-developed systems that will help realize efforts towards large scale interoperability of health information.

IHE and the Electronic Health Record (EHR)

IHE has defined a common framework to deliver the basic interoperability needed for local, regional and nationwide health information networks. It has developed a foundational set of standards-based integration profiles for information exchange with three interrelated efforts:

1. Cross-Enterprise Document Sharing (XDS) support for document content interoperability. This supports a standards-based EHR across clinical encounters and care settings.
2. A security framework for protecting the confidentiality, authenticity and integrity of patient care data.
3. Cross-domain patient identification management to ensure consistent patient information and effective searches for EHRs.

Find out more:

An abundance of information about IHE is available at:
www.ihe-europe.net

changing the way healthcare

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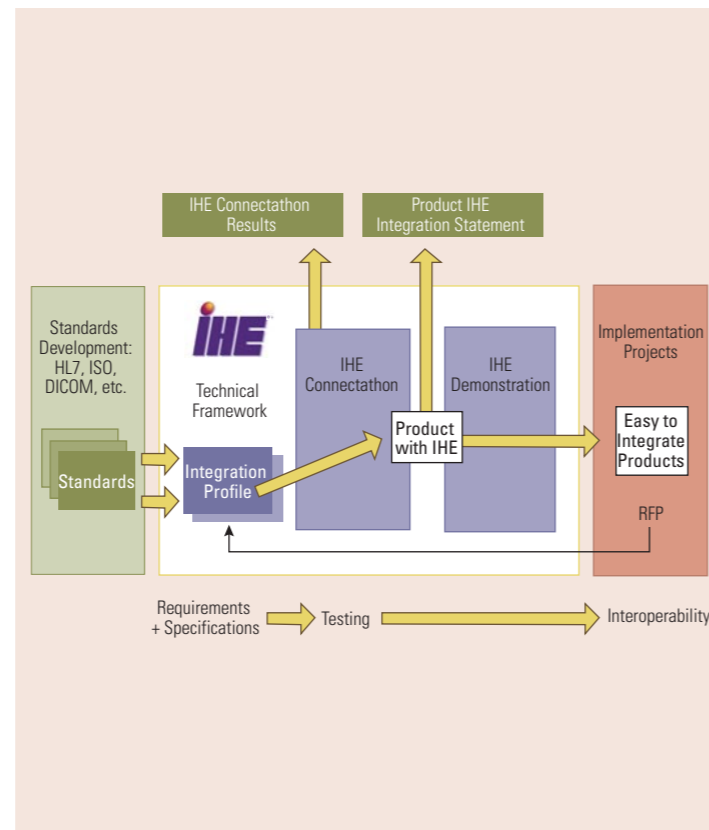
www.ihe-europe.net

Optimal patient care requires efficient access to comprehensive electronic health records (EHRs). The Integrating the Healthcare Enterprise (IHE) initiative accelerates the adoption of the information standards needed to support EHRs. More than 200 vendors have implemented and tested products based on IHE.

IHE improves patient care by harmonizing healthcare information exchange. IHE provides a common standards-based framework for seamlessly passing health information among care providers, enabling enterprise, community, regional and national health information networks.

IHE enhances the quality of patient care, resulting in the following benefits:

- **Safety** through the reduction of medical errors
- **Savings** through lower implementation costs and more efficient workflow
- **Satisfaction** through better informed medical decisions and faster results for both patient and clinician

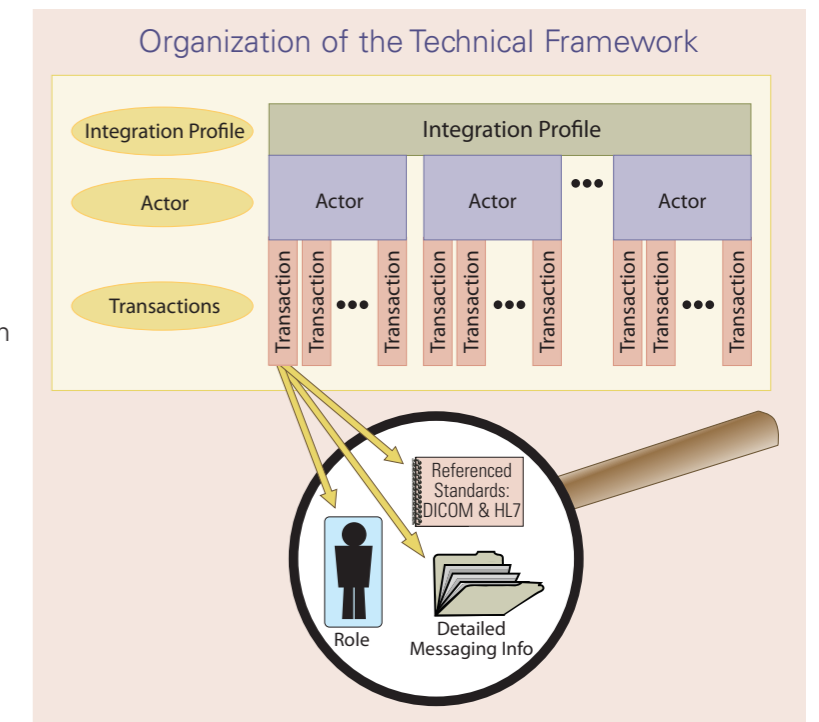


The Technical Framework – Putting Business and Technology Together

The Technical Framework consists of two parts: Integration profiles and transactions. The integration profiles model the business process problem and the solution to the problem; the Transactions section defines in thorough detail the way in which current standards are used to solve the business problem defined in the Integration profiles. Integration profiles are based on the following modeling concepts:

An Actor. A system or part of a system that creates, manages or acts upon data.

A Transaction. A specific interaction between Actors to exchange information.



The Four Steps of the IHE Process

IHE follows a defined, coordinated process for standards adoption. These steps repeat annually, promoting steady improvements in integration.

- I. Identify Interoperability Problems.** Clinicians and IT experts work to identify common interoperability problems with information access, clinical workflow, administration and the underlying infrastructure. interoperability at the IHE Connectathon. This allows them to assess the maturity of their implementation and resolve issues of interoperability in a supervised testing environment.
- II. Specify Integration Profiles.** Experienced healthcare IT professionals identify relevant standards and define how to apply them to address the problems, documenting them in the form of IHE integration profiles.
- III. Test Systems at the Connectathon.** Vendors implement IHE integration profiles in their products and test their systems for
- IV. Publish Integration Statements for use in RFPs.** Vendors publish IHE integration statements to document the IHE integration profiles their products support. Users can reference the IHE integration profiles in requests for proposals, greatly simplifying the systems acquisition process.

Here are a few examples of Actors and Transactions used in IHE integration profiles.

| Problem | IHE Domain | IHE Integration Profile | Transaction | Actors |
|--|---------------------------|--|-----------------------------------|---|
| Managing patient identity across care settings | Infrastructure | Patient Identifier Cross-Referencing (PIX) | Patient Identity Feed | <ul style="list-style-type: none"> • Patient Identity Source • Patient Identifier Cross Reference Manager |
| Managing image acquisition and storage | Radiology | Scheduled Workflow (SWF) | Worklist Provided | <ul style="list-style-type: none"> • DSS¹/Order Filler • Acquisition Modality <p><i>*Department System Scheduler</i></p> |
| Sharing electronic health records (EHRs) | Patient Care Coordination | Cross-enterprise Sharing of Medical Summaries (XDS-MS) | Register Document Set | <ul style="list-style-type: none"> • Document Repository • Document Registry |
| Establishing the continuity and integrity of clinical laboratory testing | Laboratory | Laboratory Scheduled Workflow | Test Results Management | <ul style="list-style-type: none"> • Order Filler • Automation Manager |
| Viewing high quality ECG's from any access point | Cardiology | Retrieve ECG for Display (ECG) | Retrieve ECG Document for Display | <ul style="list-style-type: none"> • Document Repository • Document Registry |