

IHE: A Model for Health Information Exchange



The ability to share clinical, financial, research and public health information among different organizations is one of the main challenges facing healthcare today. Standards-based solutions are a crucial factor in addressing this challenge. Integrating the Healthcare Enterprise (IHE) defines a technical framework that implements established messaging standards to achieve specific objectives for sharing critical medical information.

IBM actively supports development of open health standards and extensively incorporates use of these standards into our solutions. IBM Information Exchange Solutions apply Integrating the Healthcare Enterprise (IHE) profiles to enable standards-based exchange of healthcare data among healthcare enterprises, from hospitals to physicians to clinics to health insurers, government agencies and research facilities.

What is IHE?

The IHE initiative advocates integration of information systems that support modern healthcare institutions. It focuses on patients receiving the best care possible by ensuring that all necessary information in support of clinical decisions is accurate and available to healthcare professionals. The IHE initiative is both a process and a forum for encouraging integration efforts.

IHE provides a rigorous testing process and organizes educational sessions, workshops, and demonstrations for leading medical professionals and industry players to showcase the benefits of this framework and to encourage widespread adoption in the healthcare sector.

Why Adopt IHE Initiatives?

A key IHE operating assumption is that system interoperability requires global collaboration and implementation. IBM agrees with this.

In January 2011, IBM successfully participated in the IHE North American Connectathon event, continuing our long standing commitment to IHE Connectathons. IBM has participated in Connectathons since 2006. IBM's annual testing at the North American and European Connectathons has demonstrated interoperability with over 75 different vendor systems.

Enterprise Master Person Index (EMPI)

At the core of any HIE is the requirement to properly identify the patient across data domains. IBM Initiate Patient, an Enterprise Master Person Index that supports the patient identifier cross-referencing and patient demographic query profiles, is proven to deliver this capability.

XDS Suite for Health Information Exchange

IBM's XDS Suite for Health Information Exchange (HIE) solution implements IHE specifications to manage the sharing and analysis of patient information including clinical results and documents. This solution is based on flexible architectures that can adapt to centralized, distributed or hybrid requirements.

The IBM XDS Suite for HIE provides an Internet-accessible reference implementation of IHE infrastructure profiles for vendor partner testing/demonstration. See <http://xds-ibm.lgs.com:9080/info/>



Collaborative Care

The IBM Solution for Collaborative Care supports the transformation of healthcare delivery by providing an innovative approach to patient care in which physicians can easily access and analyze a patient's condition. The solution enables population and disease management analytics, clinical decision support, care coordination, and patient empowerment.

By combining IBM's EMPI and XDS Suite for HIE with advanced clinical analytics and patient and provider portal applications, care providers have the information they need when and where it's needed. The result is increased care team collaboration, efficient, patient centric care, more informed decision making, and, ultimately, improved clinical outcomes.

IBM's Standards Investment Demonstrated

Public Health Interoperability

Regional and national public health organizations are significant consumers of clinical data as well as sources of important population reports. By leveraging the same clinical domain technical infrastructure and standards being actively adopted worldwide, these organizations can analyze data of interest like never before.

A number of organizations use IBM Public Health Information Affinity Domain (PHIAD) to share reportable laboratory results. PHIAD connects private and public organizations working under a common set of policies and infrastructure to collaboratively share data via the IHE Cross-Enterprise Document Sharing (XDS) integration profile.

Open Health Tools (OHT)

Open Health Tools (<http://www.openhealthtools.org/>) is an open-source community devoted to expediting the adoption of healthcare informatics technology. Among the OHT projects are technology and tooling to aid in the various aspects of HIE, such as creating CDA documents or making a healthcare application IHE-compliant.

IBM leads the OHT IHE Profiles Project which provides client-side implementations of the XDS Document Source and Document Consumer, as well as implementations of several IHE actors from other integration profiles such as ATNA and XUA, that are necessary complements to the HIE Solution.

Additionally, IBM co-leads the Model Driven Health tools project which provides a development environment capable of aiding healthcare systems in the creation, consumption, and validation of HL7 CDA documents and various derivatives, like the HITSP C32 format.

Continua Health Alliance

The Continua Health Alliance mission is to establish an ecosystem of interoperable personal health systems that empower people and organizations to better manage their health and wellness. Continua's membership includes over 230 member companies and organizations. IBM joined Continua at

its inception in 2006 and has been an active participant in the development of the Continua guidelines, which define the Continua architecture based on standards including IHE, HL7 and IEEE.

IBM has developed an SOA-based reference architecture and open source implementation of a personal health system based on our work at Continua. IBM's Connected Home Health Solution uses IBM WebSphere Sensor Events server to provide a proven, open, SOA based middleware platform. This platform has been tuned for remote patient monitoring by integrating our Continua components and our IHE infrastructure assets for EHR and PHR integration. IBM is partnering with application vendors and medical device vendors to provide end to end personal health solutions.

Contact Us

IHE Standard

Karen Witting — witting@us.ibm.com

Enterprise Master Person Index

Michelle Blackmer — blackmer@us.ibm.com

Collaborative Care

Todd Christiansen — todd.christiansen@us.ibm.com

Open Health Tools

Sarah Knoop — seknoop@us.ibm.com

Continua

Rich Rogers — rrogers@us.ibm.com

Bill Millett — bmillett@ca.ibm.com

Sales and Marketing

Anna Fredricks — afredric@us.ibm.com



© Copyright IBM Corporation 2011

IBM Global Services
Route 100, Somers, NY 10589
U.S.A.

Produced in the United States of America
February 2011. All Rights Reserved.

IBM, the IBM logo, and ibm.com are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both. If these and other IBM trademarked terms are marked on their first occurrence in this information with a trademark symbol (® or ™), these symbols indicate U.S. registered or common law trademarks owned by IBM at the time this information was published. Such trademarks may also be registered or common law trademarks in other countries. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at: ibm.com/legal/copytrade.shtml.

Other product, company or service names may be trademarks or service marks of others.

References in this publication to IBM products or services do not imply that IBM intends to make them available in all countries in which IBM operates.



Please Recycle