



Optimal patient care requires efficient access to all relevant information. Yet, despite the advanced state of technology, most healthcare institutions today cannot provide this. Implementing integrated information systems remains complex, expensive and frustrating. There exists a well-established body of communications standards in healthcare, such as DICOM and HL7, to make interoperability possible. But the absence of a coordinated implementation process allows the fragmented information architecture seen in most institutions today to persist.

IHE is an initiative by medical specialists, administrators, information technology professionals and industry to improve the way computer systems in healthcare share information. It promotes coordinated use of established standards to address specific clinical needs in support of optimal patient care. IHE defines highly detailed implementations of these standards in a publicly available document called the IHE Technical Framework. And, it provides a detailed process of interoperability testing and demonstrations to facilitate adoption of this framework by the imaging and information systems industry.

The centerpiece of this process is the Connectathon, a weeklong interoperability testing event. The Connectathon provides the most detailed validation of the participants' integration work. Participating companies prepare for the event using a suite of testing applications—the MESA test tools—developed for this purpose. During the event their systems exchange information with complementary systems from multiple vendors, performing all of the transactions

required for the roles they have selected, called IHE Actors, in support of defined clinical functions, called IHE Integration Profiles.

The Connectathon facilitates the implementation of standards-based integration by the healthcare imaging and information systems industry. It offers vendors a unique opportunity for connectivity testing—removing barriers to integration that would otherwise have to be dealt with on site, at the customer's expense. Companies taking part have responded overwhelmingly that the IHE process addresses important issues in their product development plans.

The tables below present the successful test results obtained at the three most recent IHE Connectathons—two in North America and one in Europe. Each table lists the vendors participating and the IHE Actors and Integration Profiles their systems successfully performed. Hundreds of vendor-to-vendor connections have been tested overall, and thousands of transactions passed among the systems tested.

To better understand the information presented in the tables, consult the companion brochure, "IHE Integration Profiles: The Key to Integrated Systems." The table is not meant to provide comprehensive information about the integration capabilities of the participating companies' products, but may serve as a useful starting point for discussing those capabilities.

For more information about IHE contact ihe@rsna.org or ihe@himss.org, investigate the materials on the Web at www.rsna.org/ihe, or attend the IHE educational sessions at the RSNA annual meeting, December 1-6 in Chicago, or the HIMSS annual meeting, February 9-13, 2003 in San Diego.

IHE North America Connectathon 2002		Scheduled Workflow	Patient Information Reconciliation	Consistent Presentation of Images	Presentation of Grouped Procedures	Key Image Note	Simple Image and Numeric Report	Access to Radiology Information	Post-Proc.*	Charge Posting	Basic Security
Agra HealthCare	ADT	ADT	Image Manager	Image Manager	Order Filler	Image Manager	Report Creator	Image Manager	Image Manager	ADT	Audit Record Repository
Algotec Systems, Ltd.	Order Placer	Order Placer	Acquisition Modality	Acquisition Modality	Image Manager	Acquisition Modality	Report Manager	Image Display	Image Crator	Order Filler	Secure Node
Canon Medical Systems	Order Filler	Order Filler	Image Display	Image Display	Image Manager	Image Creator	Report Repository	Report Repository		Charge Processor	Time Server
Cedara Software Corporation	Image Manager	Image Manager	Image Display	Image Manager	Acquisition Modality	Image Display	Report Reader	Report Reader			
Cerner Corporation	Acquisition Modality	Acquisition Modality	Print Composer	Acquisition Modality		Image Display	External Rpt Repository	Report Repository			
CSIST	Image Creator	Image Creator	Print Server	Image Manager			Enterprise Rpt Repository	External Rpt Repository			
Eastman Kodak Company	Image Display	Image Display		Image Manager							
Enageon				Image Manager							
Fujifilm Medical Systems USA				Image Manager							
GE Medical Systems				Image Manager							
Hitachi Medical Corporation				Image Manager							
Hologic, Inc				Image Manager							
IDX Systems Corporation				Image Manager							
IMCO Technologies				Image Manager							
Instrumentarium Imaging				Image Manager							
Konica Medical Imaging, Inc				Image Manager							
Marotech, Inc.				Image Manager							
McKesson Information Solutions				Image Manager							
Medcon				Image Manager							
Medical Manager Health Systems				Image Manager							
Medface Co., Ltd.				Image Manager							
Merge eFilm				Image Manager							
Mittra Imaging, Inc.				Image Manager							
Philips Medical Systems				Image Manager							
RASNA Imaging Systems				Image Manager							
Siemens Medical Solutions				Image Manager							
Softmedical				Image Manager							
Stentor, Inc				Image Manager							
StorCOMM, Inc				Image Manager							
Swisstray International, Inc				Image Manager							
Tiani Medgraph AG				Image Manager							
Toshiba America Medical Systems				Image Manager							
UltraVisual Medical Systems				Image Manager							
Vital Images, Inc.				Image Manager							
Voxar Limited				Image Manager							

*Post-Processing Workflow