

Integrating the Healthcare Enterprise (IHE) - Cardiology

Opportunities to Showcase Interoperability Capabilities

Meeting the Needs of Cardiovascular Healthcare Professionals

Healthcare professionals in the cardiovascular field work with several different technologies to enable better diagnosis, treatment and tracking of their patients' state of health. The use of ultrasound, MRI, cardiac CT, and nuclear equipment for treatment and diagnosis is both lifesaving and critical for the current delivery of health care. Unfortunately, although great progress has occurred in the development of these techniques there has been a lag in developing tools and processes for the interconnectivity of these devices and information systems. These workflow barriers frustrate medical professionals focused on patient care. A leading example is differing storage methods used for patient information at hospitals and physicians' offices that can lead to time-consuming issues. For instance, if a hospital keeps track of a patient by using a medical record number, but a physician keeps track of that same patient using a social security number, the latter will have a difficult time finding his patient's stress test, because the two tracking systems do not talk to each other. Another 'real world' problem occurs when a hospital's information system cannot easily display results from an electrocardiogram and other tests conducted on different diagnostic equipment on a single machine as the test results often display on different technologies.

History of IHE

IHE, begun in 1998, is sponsored by the American College of Cardiology (ACC), Healthcare Information and Management Systems Society (HIMSS) and the Radiological Society of North America (RSNA). The initiative was originally started to support the workflow and information needs of radiologists, and to encourage computer vendors and health care management systems to use computer technology that would enable specialists to easily access patient tests and medical information.

The IHE does not develop standards, rather it helps reinforce and integrate existing standards such as those developed by Health Level Seven (HL7) and Digital Imaging Communication in Medicine (DICOM), which are two distinct international information technology standards. The effort of IHE and its participants is to create a well-defined framework that enables interoperability of health care information systems.

IHE Cardiology

ACC is the largest cardiovascular member organization with over 30,000 members. The College understands that the field of cardiovascular medicine is growing at a tremendous pace and has inundated physicians and cardiac care team associates with wonderful technologies to help improve patient care. Despite the growth in technologies, cardiologists find themselves having less time for coordination of patient care from multiple modalities and information systems. Plans are in place to establish a system that will alleviate the current processes and incompatibility of technologies that will meet the needs of cardiovascular professionals as well as industry IT and medical technology companies. The College is working with Integrating the Healthcare Enterprise (IHE) to develop a framework from which those in cardiology can enjoy workflow improvements similar to radiology, which was one of IHE's first interconnectivity success stories. It is the mission of the IHE and ACC partnership to put in place logical rules for systems to communicate with each other and resolve the frustrations currently experienced by all health care workers providing cardiovascular care.

IHE has partnered with ACC to sponsor the IHE Cardiology initiative. This initiative also includes professional societies such as the American Society of Echocardiography (ASE), the American Society of Nuclear Cardiology (ASNC), the Society for Cardiovascular Angiography and Interventions (SCAI), and the European Society of Cardiology (ESC). Representatives from these groups are working with participating companies to focus on the planning, technical, and strategic development that will encompass the integration of information within the cardiology field.

Participating industry representatives and professional medical societies have put extensive time and expertise to create the IHE Cardiology Technical Framework (2004-Year 1), <http://www.acc.org/quality/ihe.htm>, to convey the technical specifications for implementing IHE Cardiology. The Framework contains clinical use cases and technical specifications for the first three IHE Cardiology Integration Profiles: (1) Retrieval of Electrocardiograms for Display; (2) Echocardiography Workflow; and (3) Cardiac Catheterization Workflow.

Call for Participation to Industry

IHE and the participating medical societies would like the opportunity for industry to become an active participant in several upcoming IHE Cardiology events. Each event is unique and helpful to understand the background of the project, level of IT involvement and has demonstration showcases available to those who join the efforts for interconnectivity of patient information in cardiovascular medicine. Participation in upcoming 2004 events is a prerequisite for future involvement as the knowledge and technical updates shared and implemented in the fall workshops will allow for product demonstrations at 2005 events. Companies interested in participating that do not have IT-based technology that is integral to IHE Cardiology are also welcome to join as “sponsors” in any of the opportunities listed below. Benefits to sponsors and vendors include prominent acknowledgement of support through various print media to an audience of cardiovascular professionals, including the 30,000 plus ACC members, who will recognize IHE Cardiology efforts to reduce information duplicity and allow for easier access to patient diagnostics. There are five (5) events for participation, which are the following:

1) “IHE Educational Workshop – Deploying Interoperability in the Real World” – September 13-15, 2004 (Oak Brook, IL)

An educational program to provide a fundamental understanding of the IHE initiative, existing IHE Integration Profiles, basic technical transactions, and the rules, requirements, and advantages of participation

- Format: Group meeting, Roundtable discussions, Breakout sessions, Q&A
- Attendees: IHE and association sponsors, industry representatives, consultants, end users
- Outcome: Increased participant knowledge of IHE Cardiology and opportunity to participate in future IHE events
- Cost: \$150.00 per individual (multiple representation from one company is welcomed)

<p>IHE Connectathon Payment & Signed IHE Agreement – Due October 15, 2004 – Required for Future Participation</p>
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2) “IHE Participant Workshop” – October 27-28, 2004 (location TBD)

The Participant Workshop is a forum to provide technical and engineering training to understand requirements for IHE interconnectivity and upcoming events including the “IHE Joint Connectathon” and “ACC’05 Annual Scientific Session”. Vendor participation is required for the trade show demonstrations.

- Format: Group meeting, Roundtable discussions, Breakout sessions, Q&A
- Attendees: IHE technical group, company technical representatives
- Outcome: Solid technical background to be able to modify your company’s product(s) in multiple domains (cardiology, IT, radiology) to meet IHE requirements, test plan/software (MESA Test Plan and Tools) distributed, Connectathon and tradeshow demonstration requirements explained
- Requirements: Signed IHE agreement (IHE agreement forthcoming) and payment prior to “IHE Participant Workshop”
- Costs: No fee for vendors meeting above requirements

Interested companies/vendors must submit results of successful completion of the IHE Test Suite (MESA Test Plan and Tools) by December 31, 2004, to continue to the next step, the “IHE Joint Connectathon.”

3) “IHE Joint Connectathon” – January 17-21, 2005 (Oak Brook, IL)

After successful completion of the IHE Test Suite (MESA Test Plan and Tools), participating companies take part in the Joint Connectathon to verify and test interconnectivity with several other participants. The Connectathon will allow for inter-vendor troubleshooting by vendor experts, which will reduce software lifecycle costs by mitigating problems found at clinical sites. Company participation in the “IHE Joint Connectathon” is required in order to be eligible for all future IHE Cardiology events.

- Format: Test IHE Test Suite arranged for all products following a predefined test plans, including demonstration plans
- Benefits: All vendors are able to interact and test their products with each other prior to software release mitigating the extremely high expense of finding and fixing problems at clinical sites; it also allows them to gain confidence in their software performance for demonstrations.
- Attendees: Vendors and sponsors of IHE Cardiology
- Outcome: Inter-company tested and verified software prior to each vendor’s software release
- Requirements: Signed IHE agreement and payment, attendance at “IHE Workshop Participant Workshop” (October 27-28,2004), and successful completion of IHE Test Suite
- Costs: \$8,000 for general participation
\$4,000 for each additional ‘system’ (cardiovascular modalities and/or IT information processes to be interconnected) *See forthcoming document for additional information.*

4) “2005 HIMSS Annual Conference & Exhibition” – February 13-17, 2005 (Dallas, TX)

In addition to other IHE domain (radiology, IT, laboratory) demonstrations, the IHE Cardiology demonstration at this conference will focus on ECG Retrieval from multiple participant vendors to a diverse technology and IT audience. For more information <http://conference.himss.org/ASP/index.asp>

- Format: Floor and theater demonstration of multi-product interconnectivity
- Benefits: Corporate acknowledgment on signage and event publications, product participation at demonstration
Note: Product specific advertising is prohibited at the demonstration. Companies interested in discussing their products must have an exhibit booth to conduct such conversations.
- Attendees: CIOs and other IT medical professionals
- Outcome: Exposure of vendor’s product interconnectivity to physicians and cardiac care associates who are potential decision makers and product end users of IHE Cardiology
- Costs: See http://conference.himss.org/ASP/forExhibitors_homepage.asp

5) “ACC’05 – Annual Scientific Sessions” – March 6-9, 2005 (Orlando, FL)

An exhibit floor demonstration and theater showcasing the IHE Cardiology technical framework to a cardiovascular audience of approximately 16,000 medical professionals at the 5th Annual Scientific Session.

- Format: Floor and theater demonstration of multi-product interconnectivity
- Benefits: Corporate acknowledgment on signage and event publications, product participation at demonstration; see below for multi-level sponsorship opportunities
Note: Product specific advertising is prohibited at the demonstration. Companies interested in discussing their products must have an exhibit booth to conduct such conversations.
- Attendees: Approximately 16,000 medical professionals as well as IT professionals
- Outcome: Exposure of vendor’s product interconnectivity and sponsor support to physicians and cardiac care associates who are potential decision makers and product end users of IHE Cardiology
- Requirements: Signed IHE agreement and payment, attendance at “IHE Workshop Participant Workshop” (October 27-28, 2004), attendance of “IHE Joint Connectathon” (January 17-21, 2004), and successful completion of IHE Test Suite
- Costs: See below for multi-level sponsorship opportunities

ACC’05 Multi-level support opportunities and their benefits:

Supporter Level - \$3,000

- Corporate recognition in the ACC’05 *Final Program* and ACC’05 *ExpoGuide*
- Corporate recognition on www.acc.org
- Corporate recognition on signage in the ACC’05 IHE demonstration area
- Corporate recognition on the ACC’05 IHE Cardiology flyer
- Eligible to participate in official ACC’05 Doctor’s Bag

Participant Level - \$8,000

- All Supporter Level benefits
- Participation and product placement in the ACC'05 IHE demonstration area
- Opportunity to have educational literature displayed in the ACC'05 IHE demonstration area

Leadership Level - \$15,000

- All Supporter Level and Participant Level benefits
- Eligible to submit/present an educational session at the ACC'05 IHE theater

Complete and Additional Information

Questions or request for more information about any of the “Call for Participation” events, please contact:

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