2012 IHE Eye Care Connectathon Results

On November 5-9, 2012, IHE Eye Care convened a 4 day Connectathon, a face-to-face interoperability testing event based on the IHE Eye Care Technical Framework Year 7 Final Text. The purpose of the Connectathon was to test implementation of the IHE capabilities in commercially available systems. This was a requirement for participation in The Electronic Office, the Interoperability Showcase at the AAO 2012 Annual Meeting. The testing process provided a unique opportunity for vendors to test the IHE integration capabilities implemented in their systems with each other in a neutral forum sponsored by IHE Eye Care, managed by IHE Eye Care project managers, and hosted by the Radiological Society of North America and the AAO.

The IHE Technical Framework defines a subset of the functional components of the healthcare enterprise, called IHE Actors, and specifies their interactions in terms of a set of coordinated, standards-based transactions. These transactions are organized into functional units called Integration Profiles that highlight their capacity to address specific clinical needs. Three separate profiles, which represent different integration problems, were used in the testing process: Advanced Eye Care Workflow (Final Text Version), Basic Eye Care Workflow (Trial Implementation Version) and Charge Posting. The Eye Care Workflow Integration Profile deals with the coordination and exchange of information of the following tasks that are part of every patient visit: admit or register patients, order tests/images for patient, schedule procedures, create a worklist (or list of procedures that were ordered), monitor the status of procedures performed, create images, manage or keep track of images created, store images and display images. The Charge Posting Profile provides a solution for collecting and posting timely billable procedural details.   In addition, the General Eye Evaluation Clinical Document Architecture Document (CDA) is in Trial Implementation Version.

The following companies participated: Carl Zeiss Meditec, Compulink, Estenda Solutions, ifa Group of Companies, Insight Software, LLC, Kowa Optimed, Inc., MDoffice,Inc., Medflow, Inc. Topcon Medical Systems, Inc., and USSI.

During the 4 days of testing, these vendors with 14 different systems, executed peer-to-peer verified tests under the supervision of the Connectathon monitors. This included 1 day of full workflow testing where all the vendors participated to demonstrate end-to-end integration, from patient registration and ordering, through image acquisition, storage and display, and to automatic posting of charges based on the procedures performed. In addition, these vendors participated in pre-Connectathon testing and passed tests.

The description of the color coding schema is as follows:

1. Trial implementation testing (Yellow): the actor has successfully passed a profile in trial implementation status.
2. Final text testing (Green): the actor has successfully passed a profile in final text status. The domain committee may upgrade the Connectathon results from Yellow to Green if there are no substantive changes in the integration profile going from trial implementation version to final text version.
3. Product testing (Blue): the actor has successfully passed a profile in final text status (same as above) AND the vendor has submitted an IHE Integration Statement to indicate that it is a commercially available product (or has published it as open source). The vendor is also required to publish the IHE Integration Statement on their own web site.

For 2012, the product testing is mainly yellow because Basic Eye Care Workflow is in Trial Implementation Version and green for Advanced Eye Care Workflow (Final Text Version). These vendors tested for their different roles/actors. The charts below can be used as an aid to determine what level of integration this product supports with other systems and what benefits such integration might provide. Not all tests for each configuration were able to be completed at the IHE Eye Care Connectathon. Potential purchasers should also refer to the individual vendors' IHE Integration Statements and DICOM conformance statements to see exactly what software versions are able to be integrated and for additional details.

For the Advanced and Basic Eye Care Workflow Integration Profiles:

Vendor	System Tested	Actor(s)
Carl Zeiss Meditec	Cirrus HD-OCT (5.2)	Acquisition Modality
Carl Zeiss Meditec	FORUM (2.6)	Image Manager
Carl Zeiss Meditec	HFA (5.1)	Acquisition Modality
Compulink	CompulinkPMSWithOF (1.1)	Order Placer, Patient Encounter Consumer, Patient Encounter Source
Heidelberg Engineering	Spectralis (5.4)	Acquisition Modality,
Heidelberg Engineering	Spectralis (5.4)	Acquisition Modality,
ifa Group of Companies	ifa (6)	ADT
ifa Group of Companies	ifa (6)	Image Display
Kowa Optimed, Inc.	Non-mydriatic α-D 5 Mega Digital Imaging Software, VK-2 Software (5.400)	Acquisition Modality
Kowa Optimed, Inc.	Non-mydriatic α-D 5 Mega Digital Imaging Software, VK-2 Software (5.400)	Acquisition Modality
Management Plus	Management Plus 5.0	ADT Patient Registration
Management Plus	Management Plus 5.0	Patient Encounter Consumer
Medflow, Inc.	Medflow EHR (7.6.3)	Order Placer
Medflow, Inc.	Medflow EHR (7.6.3)	Department System Scheduler/ Order Filler
Medflow, Inc.	Medflow EHR (7.6.3)	Image Manager
Medflow, Inc.	Medflow EHR (7.6.3)	Department System Scheduler/ Order Filler
Medflow, Inc.	Medflow EHR (7.6.3)	Image Manager
Medflow, Inc.	Medflow EHR (7.6.3)	Patient

		Encounter Consumer
NexTech Systems	NexEMR (10.1)	Patient Encounter Source
Topcon Medical Systems	Synergy Acquisition Modality Importer	Acquisition Modality Importer
Topcon Medical Systems	IMAGEnet (4.00)	Image Display
Topcon Medical Systems	Synergy Image Display (1.1)	Acquisition Modality Importer
Topcon Medical Systems	Synergy Image Display (1.1)	Acquisition Modality
Topcon Medical Systems	IMAGEnet (4.00)	Image Display

For the Charge Posting Integration Profile:

Vendor	System Tested	Actor(s)
Heidelberg Engineering		Acquisition Modality
Kowa Optimed, Inc.	Non-mydriatic α-D 5 Mega Digital Imaging Software, VK-2 Software (5.400)	Acquisition Modality
Medflow, Inc.	Medflow EHR (7.6.3)	Department System Scheduler/Order Filler

If there are any questions or you would like more information, please contact Flora Lum, MD at the Academy, flum@aao.org or 415 561-8592.