

2010 IHE Eye Care Connectathon Results

On October 11-14, 2010, IHE Eye Care convened a 4 day Connectathon, a face-to-face interoperability testing event based on the IHE Eye Care Technical Framework Year 5 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 2010 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. Two separate profiles, which represent different integration problems, were used in the testing process: Eye Care Workflow 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.

The following companies participated: Heidelberg Engineering, Kowa, Medflow, Inc., MDoffice, Oculus, Topcon Medical Systems, Inc., and USSI.

During the 4 days of testing, these vendors with 10 different systems, executed 95 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 152 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 2010, the product testing is blue. 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 Eye Care Workflow Integration Profile:

Vendor	System Tested	Actor(s)
Heidelberg Engineering, Inc.	Spectralis Version 5.3	Acquisition Modality
Heidelberg Engineering, Inc.	Spectralis Version 1.1	Acquisition Modality Importer
Kowa Optimed, Inc.	Non-mydratic α -D 5 Mega Digital Imaging Software, VK-2 Software Version 6.0	Acquisition Modality
MDoffice	MDoffice, Software Version 8 (Practice management and medical records)	ADT Patient Registration, Order Placer
Medflow, Inc.	Medflow Electronic Medical Record, Version 7.5.0	Order Placer, Order Filler,
Medflow, Inc.	Medflow Imaging, Software Version 7.5.0	Image Manager Image Display
Oculus Optikgerate GmbH	Pentacam (1.17)	Acquisition Modality
Topcon Medical Systems	Eyernote Synergy (1.4) Topcom Lensometer	Acquisition Modality Importer
Topcon Medical Systems	Eyernote Synergy Image Display (1.4)	Image Display
USSI	VersaSuite, Software Version 8.0 (image PACS)	Image Display

For the Charge Posting Integration Profile:

Vendor	System Tested	Actor(s)
Heidelberg Engineering	Spectralis Version 5.3	Acquisition Modality
Kowa Optimed, Inc.	Non-mydratic α -D 5 Mega Digital Imaging Software, VK-2 Software Version 6.0	Acquisition Modality
MDoffice	MDoffice, Software Version 8 (Practice management and medical records)	Charge Processor
Medflow, Inc.	Medflow Electronic Medical Record, Software Version 7.5.0	Order Filler
Oculus Optikgerate GmbH	Pentacam Version 1.17	Acquisition Modality
Topcon Medical Systems	Eyeroute Synergy Version 1.4	Acquisition Modality Importer

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.