



The IHE Connectathon.

What it is and how it is done.



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What is IHE?

IHE is a world-wide initiative that enables Healthcare IT system users and suppliers to work together to enable interoperability of IT systems. It does this through:

- Careful definition of specific healthcare tasks (use cases).
- Identification of the information and processes required to support those tasks.
- Specification of the necessary information exchange using existing standards and the processing to be performed.
- Annual testing of supplier systems for conformance with the specifications – the **Connectathon** – is all about evidence based interoperability.

Beginning in the radiology domain back in 1999 **IHE** has expanded into multiple domains and today ten domains are covered, thereby ensuring system interoperability between suppliers and their systems on a very big scale and on an even larger world stage.

Why the Connectathon?

The Connectathon gives vendors an opportunity to test the interoperability of their products in a structured and rigorous environment with peer vendors. It also enables the **IHE** Technical framework itself to be tested in the form of trial implementation/deployment settings.

Participating companies test their implementation of **IHE** Integration Profile specifications against those of other vendors using real world clinical scenarios.



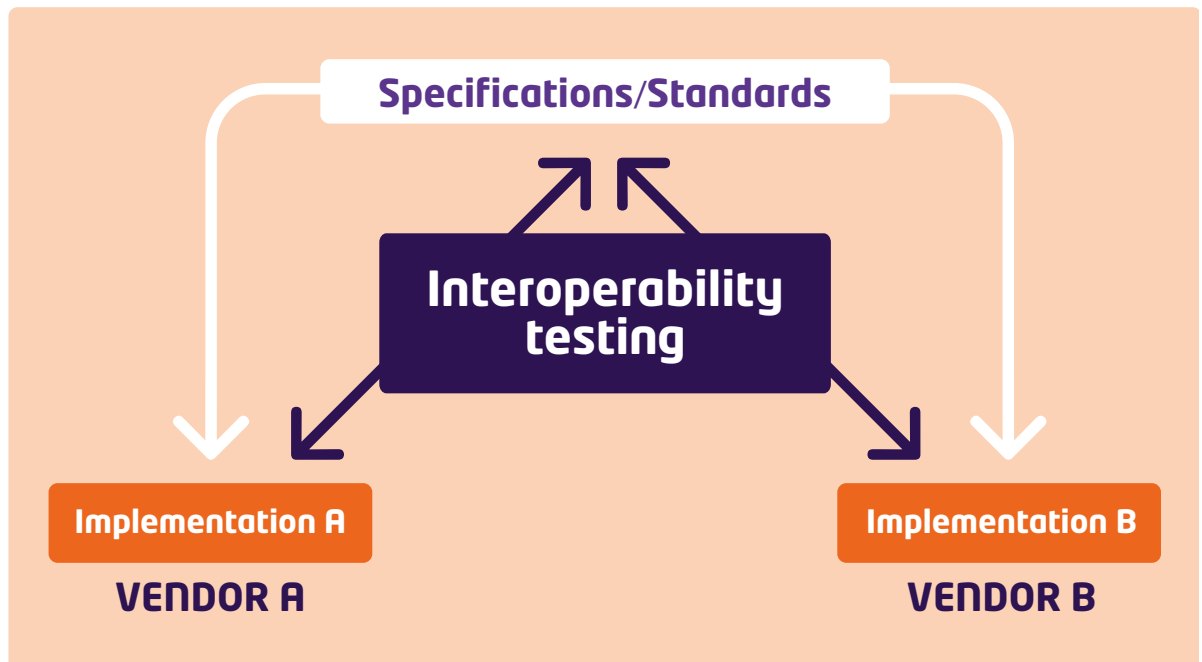
“Connectivity of imaging informations in the era of digital radiology is mandatory and crucial. Interoperability of modalities and IT-systems from different vendors is not self-evident. The most favourable approach to have positive experiences is using solutions which have been tested during an IHE Connectathon. Besides the more general eHealth-solutions -covered by the IHE-XDS Profiles family- there is a lot ongoing for Radiology, e.g. the new version of the IHE Profile “Scheduled Workflow”, Report Templates or Radiation Exposure Monitoring (REM). The European Society of Radiology (ESR), supporting IHE as a sponsor, is following different strategic IT-related projects, e.g. Decision Support, Structured Reporting and esp. dose optimisation (EMAN-Project). As part of EMAN the IHE REM approach is very relevant, but representation of products supporting REM is still limited. Therefore, more interest by vendors supporting these Profiles would be very interesting for radiologists. This would allow to discuss an IHE Demonstration at Radiology-Congresses in future.”

Dr. Peter Mildenerger

Associate Professor of Radiology, University Medical Center Mainz, Germany

What is the Connectathon?

The Connectathon's objective is to test systems' conformity to **IHE** Profiles by using validators, and the Interoperability between systems or simulators. Clinical workflow is guidance for testing. **IHE** allows test validation in a controlled and neutral environment.



The Connectathon is a connectivity test marathon

- Provides week-long face-to-face testing of the participating products' interoperability.
- Participants shall prepare and test with open source test tools and plans provided in advance.
- Encourages vendors, large and small, to work closely together to solve issues.
- Participants are allowed to correct non-conformities during the event.
- Hundreds of transactions are verified using both test tools and peer tests.
- Tests are recorded and outcome validated by neutral monitors.
- At the end of the event successful vendors are registered in the **Connectathon Results Matrix**.
- Sanity checks whether the **IHE** Profiles are clear enough and can be implemented consistently.



"Our participation to IHE Connectathons is a key demonstration of our customer commitment to interoperability. Planning for a Connectathon sets the pace for IHE based interoperability innovations, whereas actual Connectathon presence and testing provides a great opportunity to validate latest software development efforts. Add to that the networking opportunities with other software vendors, even including competitors, and you have an industry event that is truly unique."

Harm-Jan Wessels,
CEO Dutch software developer Forcare

Benefits for the Users of Healthcare IT Systems

- Reduces potential interoperability issues on site.
- Qualifies vendors who have invested in proving their products support IHE Profiles.
- Aids decision making for tender responses from competing vendors.
- Saves money and inconvenience through qualified vendor stipulation.
- Gives confidence to the procurement process and subsequent deployment.
- Flags vendors who have been through Connectathons and peer group review

Benefits for the Company's product development of implementing and testing IHE Profiles

Company Specific Benefits

- Reduced development cost and time-to-market by implementation of one connectivity method.
- Accelerated testing through the **Connectathon's** structured and supervised testing environment. Minutes of testing can save months in-company effort on the question: **Have we correctly implemented these IHE Profiles?**
- Independent product testing by qualified test specialist and proven test tools ensures product quality and drives down implementation cost.
- Ensuring your products continue to meet the expanding base of IHE Profiles.
- Performing comprehensive interoperability tests with many peers in the industry allows for better preparation and avoids system integration at customer sites

Company General Benefits

- IHE Profiles enable seamless and secure exchange of health information for both providers and patients across the globe, and provide access to a world-wide eHealth market.
- Successful vendors are registered in the [Connectathon Results Matrix](#) →.
- Demonstrate market leadership in the industry on interoperability feature adoption.
- Network with industry leading professionals during the week-long event.



"As for Arsenà.IT the collaboration with IHE is chiefly important in the development of the Fascicolo Sanitario Elettronico regionale (regional Electronic Health Record) project. We can apply international standards and knowhow that make designing and planning solutions much more easier, reducing the time gap of implementation by applying solutions recognized at international level.

In this context Connectathon represents a chance for Arsenà.IT to enhance our knowhow as regards test and labelling mainly for our associated members, all the 23 public Local Health Authorities and Hospital Trusts of the Veneto Region. Indeed, having the chance to discuss and collaborate with suppliers with a wide experience in implementing standards at international level guarantee to set up our working method in a better way, providing the best solutions in a shorter time".

Claudio Saccavini,

Technical Director of Arsenà.IT, Veneto's Research Centre for eHealth Innovation

- Acquire deep insights from the world leading experts on **IHE** Profile requirements.
- Build credibility about IHE Profile implementation competency towards customers when you register your products in the [IHE Product Registry](#) →.
- Country, region and hospital tender procedures increasingly demand independent demonstration of **IHE** Profile implementation competency.

Industry at large benefits

- Participate with industry leaders during VIP tours of the **Connectathon** floor.
- International healthcare community recognised event.
- Shared experiences with over 350 of the industry's top professionals on-site.
- Demonstrate industry uptake of interoperability features.
- Be part of the emerging healthcare consensus in standards and interoperability.
- The greater the number of vendors participating, the better the standards of interoperability in the market place between vendors, leading to enhanced benefits for patients and healthcare staff.

Which IHE Profiles will be tested?

- Those Profiles for which the vendors have registered.
- Sometimes sponsoring organisations and vendors work together to specify Profiles that should be tested.
- Vendors have freedom to select the Profiles they want to test.
- Every year **IHE** international team of experts develops new Profiles which are available for testing.
- In 2015 IT Infrastructure, Radiology, Cardiology, Patient Care Coordination, Pathology, Laboratory, Pharmacy, Patient Care Devices and Dental will be the featured domains.
- Relevant **IHE** Profiles in use in user and buyer communities and reflecting the challenges in e-Health, will also be available for testing.



“Hosting the European IHE Connectathon 2016 is a great challenge and makes us very proud. For over thirteen years IHE Germany worked concentrated on the deployment of IHE Profiles and concepts in a number of Healthcare IT environments. The Connectathon in Bochum (April 11.-15. 2016) will give all vendors and providers in Europe a centralized place to test their products and solutions as well as to come together and connect within the largest European community in Healthcare Interoperability. We look forward to a great event that will push the Healthcare IT markets in Germany and Europe.”

Alexander Ihls,

Vendor Co-Chair (IHE Deutschland e.V.)

How are the tests performed?

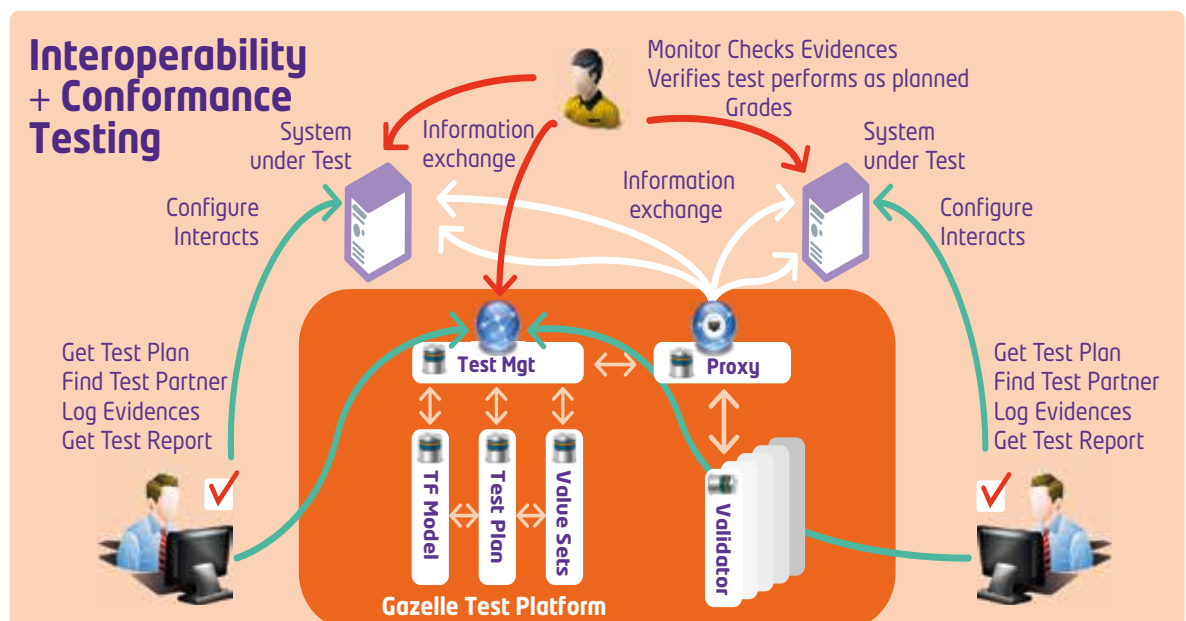
The **Connectathon** test platform using test management software system is called **Gazelle** → Essentially there are a variety of tools e.g. validation tool – to verify that messages / documents conform to the specifications – simulator tools – test the interoperability of an application, not as a reference implementation but as a controlled test case.

During the **Connectathon**, testing is performed using the **Gazelle** Test Bed. The **Gazelle** suite of tools provides **Connectathon** participants, monitors and management with the tooling to run the event.

Participants share configurations, samples and identify test partners through the **Gazelle** test management tool. The tool provides them a list of tests to perform and the ability to log evidences of the tests performed. Participants are free to run the test at their own pace.

Monitors, who are subject matter experts, verify each test. As for the participants they have the ability to check the conformance of the most critical exchanged messages using validation services.

The Management Team is provided with indicators that allows them to monitor the testing progress and grade the participants.



Please consult our videos of some recent **Connectathons** in [Barcelona](#), [Bern](#), [Istanbul](#). More details can be found on the ihe-europe.net website.



"The NHS in England has long been a supporter of the use of standards in healthcare IT, particularly in the areas of interoperability and terminologies like SNOMED CT. Under the Health and Social Care Act 2012, NHS England has dedicated powers in terms of approving information standards, which enables these to be mandated for use. There is also a requirement for open and transparent consultation, and robust and tested implementation plans to ensure the information standard is fit for use in the English health and social care system. Activities that add value to and demonstrate compliance with this requirement should be supported where practical."

Kathy Farndon,

Head of Health Information Standards and Governance, NHS England, UK

The IHE Connectathon test process

IHE Community: a NETWORKING OPPORTUNITY

300+

participants

230+engineers from
participating
organizations**40+**

monitors

30+committee
members**2800+**tests
performed**120+**

systems

The **Connectathon** is a forum where vendors and their technical specialists can exchange implementation experiences and participants effectively share samples – for example radiology images and HL7 CDA documents. These will be checked for conformance to **IHE** Profiles using the validation software. It is common for engineers to discuss their own technical issues and to work on the fly with engineers, often from competing organisations, BUT without the commercial pressure. Support and expertise are provided by the Monitors and the Domain Committee participants who are global representatives from many countries though all are committed **IHE** members but who are not commercially aligned. Between them they have many years of experience, often in a commercial environment.

The desire to succeed is the spirit that is very much present amongst all participating vendors, the Monitors are not looking to fail anyone and the “help each other mentality and stay until it works attitude” is paramount amongst those present. After all, issues one vendor may have today may invariably occur with another vendor tomorrow.

There is also the opportunity to meet other experts involved in European projects e.g. [epSOS](#), [eHGI](#), Trillium Bridge, [Antilope](#).

It is important to recognise that the work is done on a domain specific basis and in domain specific sessions, where Monitors with domain experience are using their skills, experience from previous **Connectathons** and expertise in their own field to bring success to all.



“Semantic Interoperability is of utmost strategic importance for Deutsche Telekom Healthcare Solutions. Therefore, we decided to develop a platform that is strongly oriented on IHE profiles like XDS.b, PIX/PDQ and others. After we tested our eHealth Composite (eHC) platform successfully at the IHE Europe Connectathon we can ensure our customers in their decisions to build new services with interoperable interfaces. Our participation at IHE Connectathons and the usage of HL7 CDAs makes our offerings future proofed.”

Dr. Axel Wehmeier

Speaker of the Management Board, DTHS

There are approximately 50 Monitors trained each year in dedicated sessions. Whilst the Monitors are there to help, they are also totally independent and objective in their decisions. Ultimately they have to carry out testing checks that are a pass or a fail.

Monitors are assigned to tests based on their own competencies and skill set and vendors have to convince them that the work they are effectively grading is soundly based; successful vendors will always have their logs ready to run, replay and replay again if necessary.



2015 Connectathon Monitors with Eric Poiseau, IHE-Europe Technical Manager.

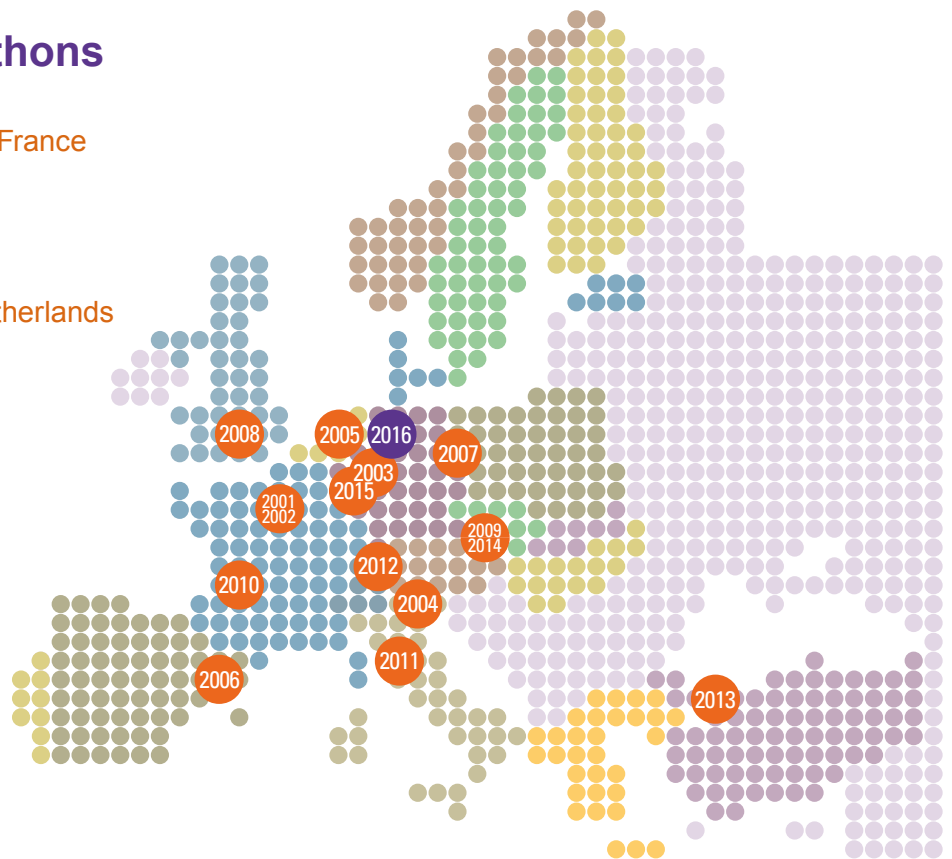


“ELGA GmbH is responsible for the introduction and implementation of the electronic health record (ELGA) in Austria and has relied on IHE standards since 2007. Due to the federal organisation of the healthcare system in Austria, ELGA is designed as a distributed system with central components for patient and healthcare provider identification and authorisation management. The core building blocks are composed of numerous IHE XDS affinity domains containing the health records and some central components like the master patient index, the healthcare provider index, the access control system and the citizen portal. Communication between the core components strictly follows the rules of IHE Profiles, whereas the communication between the affinity domains and the systems at the point of care (hospital information systems etc.) today is still proprietary. The Connectathon 2014 in Vienna provides the perfect testing ground to prove interoperability according to IHE Profiles. Companies which have successfully participated in a Connectathon will have a competitive advantage as IHE compliance is increasingly regarded as a success factor in calls for tenders.”

Hubert Eisl,
managing director ELGA GmbH, Austria

European Connectathons

- 2001: Charenton-le-pont Paris, France
- 2002: Villejuif in Paris, France
- 2003: Aachen, Germany
- 2004: Padova, Italy
- 2005: Noordwijkerhout, The Netherlands
- 2006: Barcelona, Spain
- 2007: Berlin, Germany
- 2008: Oxford, UK
- 2009: Vienna, Austria
- 2010: Bordeaux, France
- 2011: Pisa, Italy
- 2012: Bern, Switzerland
- 2013: Istanbul, Turkey
- 2014: Vienna, Austria
- 2015: Luxembourg
- 2016: BOCHUM



Results registration in the Results matrix

IHE communicates the vendor's **Connectathon** participation at the company level.

IHE will register and disclose the IHE Profile, actors and options that have succeeded at the **Connectathon** in the [Connectathon Results Matrix](#) →

Vendors who tried and learned during the **Connectathon** week that more thorough implementation work is needed to succeed, are encouraged to participate again next time around and to undertake more dedicated trialling before hand. IHE will not disclose any failures to comply.



"IHE Connectathons have been useful for us in three different ways. First, as a national Health IT player it is crucial for us to closely follow the development of the latest standards and application guides. IHE Connectathon results help us to estimate the maturity levels of different IHE profiles, their current momentum and future potential. Second, while evaluating software acquisitions for our needs, it is important for us to study the Connectathon history of different software vendors. And finally, we can participate to Connectathons ourselves as a national implementer of Health IT services - we did just that twice while developing the Finnish epSOS NCP (national contact point). It's been an amazing experience, both as a good start for testing our implementation against NCPs of other countries, and as a socially important event, with side activities and meetings with other projects and communities, often present close to the Connectathon venue."

Konstantin Hyppönen, PhD

IHE Finland Co-Chair, Senior IT Specialist Kela, Kanta Services Finland

IHE Integration Statements and the IHE Product Registry

Vendors publish “**IHE integration Statements**” to declare the conformity of their products to specific **IHE** Profiles. Participation in the **Connectathon** will of course greatly increase the vendor’s credibility when these **IHE** Integration Statements are created for their products.

A template for **IHE** Integration Statement is available at: <http://tinyurl.com/62ymvtc>

The **IHE** Integration Statements are intended to be made public on the corporate website of the vendor. Potential customers of products with implemented **IHE** Profiles can easily search for vendors and products in the **IHE Product Registry** →. Vendors are encouraged to enter their available, released products in this registry with an **IHE** Integration Statement. A linkage can be made to the **Connectathon** where the vendor’s capability was demonstrated.

IHE Domains with their solution Profile specifications

IHE is organized by clinical and operational domains. In each domain users with clinical and operational experience identify integration and information sharing priorities and vendors of relevant information systems develop consensus, standards-based solutions to address them.

Each domain includes a technical committee, whose primary task is developing and documenting the solutions (known as integration profiles), and a planning committee, whose primary tasks are long-term scope planning and organizing deployment activities (such as testing events and educational programs). Each domain develops and maintains its own set of Technical Framework documents. Coordination among domains is the responsibility of the Domain Coordination Committee, comprising representatives from each of the domain planning and technical committees. The official and complete **IHE** Technical Framework documents are available at: http://www.ihe.net/Technical_Frameworks

Below, the brief descriptions of the IHE Profiles that have been published in trial implementation or final text versions.



IHE Connectathons are interoperability coming alive. The implementation of the “Swiss eHealth Strategy” would not be possible without IHE and its integration profiles. In the federated healthcare system in Switzerland the national Electronic Health Record (EHR) will not be a centralized file but a virtual record that is put together from many sources at the moment of a request. This allows a step-by-step process on the way to a national HER. To guarantee national interoperability regional IHE XDS affinity domains are important building blocks. But for many other reasons IHE is the way to build the future. Information management in healthcare today is more and more complex. Vendors are no longer in the position to deliver a single product that cover all the needs of their customers. The participation at IHE Conncetathons brings former locked-in solutions into the world of interoperability – in the interest of users and vendors.

Adrian Schmid

Head of “eHealth Suisse” (Swiss Coordination Office for eHealth)

IT Infrastructure

The IT Infrastructure domain in **IHE** addresses cross-enterprise document sharing, security and privacy assurance methods, provider and patient identity, and workflow management. The **IHE** Cross-Enterprise (XD*) Profiles that **IHE** IT Infrastructure provides are the basis of numerous regional health information exchange solutions with repositories, registries and patient portals all over the world. The edge-systems in radiology, laboratory, cardiology, and pharmacy connect to these regional health information exchanges.

IHE IT Infrastructure Profile highlights

[See all the profiles recommended by the EU](#), in addition the followings are highlighted:

- **Add RESTful Query to ATNA**
 - This supplement updates the Audit Trail and Node Authentication (ATNA) Profile
 - defining a standardized way to retrieve audit messages collected by an Audit Record Repository.
- **Care Services Discovery (CSD):**
 - The CSD Profile supports queries across related directories containing data about: organizations, facilities, services and providers.
- **Cross-Community Document Reliable Interchange (XCDR):**
 - The Cross-Community Document Reliable Interchange (XCDR) Profile provides the capability to send a set of documents in a Cross-Community environment.
- **Patient Administration Management (PAM):**
 - Patient Administration Management establishes the continuity and integrity of patient data, and additional information such as related persons (primary caregiver, guarantor, next of kin, etc.)
- **Internet User Authorization (IUA):**
 - Provides user authorization for RESTful interface. Can be implemented in conjunction with MHD.
- **Mobile access to Health Documents (MHD):**
 - Provides a RESTful interface to Document Sharing including XDS.
- **Document Metadata Subscription (DSUB):**
 - Describes the use of subscription and notification mechanism for use within an XDS Affinity Domain and across communities. Added Pull Notification.



Given Luxembourg's cosmopolitan environment and its huge amount of cross-border commuters, it is of utmost importance to us that the software solutions required for our national interoperability platform are compliant with international interoperability standards, so as to facilitate a cross-border use at a later stage. We consider the Connectathon as one of the cornerstone events for interoperability and conformance testing. And it is even more than just a testing event: it also offers a valuable opportunity to meet other healthcare IT experts, and share knowledge and experiences with them.

Heiko ZIMMERMANN

Agence eSanté is responsible for the implementation of the Luxembourg national eHealth platform
- including a.o. the electronic health record (DSP) - which heavily relies on the compliance with IHE profiles.

- **Cross Enterprise Workflow (XDW):**
 - Coordinates human and applications mediated workflows across multiple organisations.
- **Healthcare Provider Directory (HPD):**
 - Supports discovery and management of healthcare provider information, both individual and organizational, in a directory structure.

For a complete overview of the solutions provided by all IHE IT Infrastructure Profiles, go to:

http://wiki.ihe.net/index.php?title=Profiles#ihe_IT_Infrastructure_Profiles

Radiology

The Radiology domain in IHE addresses the needs for workflow coordination and image/information sharing, viewing, processing and quality improvement in the radiology practice, both within the radiology department and beyond the healthcare enterprise in a regional healthcare delivery setting. The systems involved are acquisition modalities, PACS-es, procedure scheduling systems, RIS-es, viewing and diagnostic reporting workstations, portals with advanced clinical post-processing applications.

IHE Radiology Profile highlights are

- **Mobile access to Health Documents for Imaging (MHD-I):**
 - Maps DICOM WADO (URI and RESTful) transactions for retrieving images to IHE.
- **Digital Breast Tomosynthesis (DBT):**
 - Specifies creation, exchange, display and use of DBT images, the new volumetric mammography technology.
- **Scheduled Workflow.b (SWF.b):**
 - Integrates ordering, scheduling, imaging acquisition, storage and viewing for Radiology exams. New is the permission to only use HL7 v2.5.1 and the inclusion of the reconciliation of the patient record when images are acquired for unidentified (e.g. trauma), or misidentified patients.
- **Management of Radiology Report Templates (MRRT):**
 - Definition and interchange of Radiology report templates
- **Invoke Image Display (IID):**
 - Allows the user of a non-image-aware system like an EHR, PHR or RIS, to request the display of studies for a patient, and have the display performed by an image-aware system like a PACS.



Participation in IHE and to IHE Connectathons are both key elements in Dedalus' international interoperability strategy. Dedalus strongly supports international standards and the value of the Connectathon is tangible in the product design, development and testing as well as in proving our interoperability capability to our clients. Dedalus is operating in a variety of settings and markets worldwide and IHE and the Connectathon are valuable tools to help communicate with users and decision-makers on the value of interoperability. Connectathons are seen by our partners, clients and users as a way to effectively deploy interoperability products that work and thus greatly reducing deployment risks.

Lapo BERTINI

IHE-Europe Vendor Co-Chair, Business Manager of Dedalus Healthcare Systems Group, Italy

- **Stereotactic Mammography Image (SMI):**
- Provides post-procedural review of Stereotactic Mammography images on general-purpose (PACS) workstations.
- **Post-Acquisition Workflow plus Application Hosting (PAWF):**
 - Provides worklists, status and result tracking for post-acquisition tasks and application hosting.
- **Cross-enterprise Document Sharing for Imaging.b (XDS-I.b)**
 - Extends ITI Profile XDS to share images, diagnostic reports and related information across a group of care sites.
- **Cross-Community Access for Imaging (XCA-I)**
 - Extends ITI Profile XCA to share images, diagnostic reports and related information across communities.
- **Cross-enterprise Reliable Document Interchange (XDR-I)**
 - Extends ITI Profile XDR to push images, diagnostic reports and related information between healthcare providers.

For a complete overview of the solutions provided by all IHE Radiology Profiles, go to:

http://wiki.ihe.net/index.php?title=Profiles#ihe_Radiology_Profiles

Cardiology

The Cardiology domain in IHE addresses the needs for workflow coordination and image/information sharing, viewing, processing, procedure reporting and quality improvement in the cardiology practice, both the in-patient and ambulatory cardiology practice beyond the healthcare enterprise in a regional healthcare delivery setting. The systems involved are acquisition modalities, stress-test systems, hemodynamics systems, hybrid intervention suites, (mini)-PACS-es, VNAs, procedure scheduling systems, CIS-es, ambulatory office EHRs, viewing and diagnostic reporting workstations, portals with advanced clinical post-processing applications and intervention support applications.

IHE Cardiology Profile highlights are

- **Registry Submission Content – CathPCI (RSC-C):**
 - Specifies the HL7 CDA content structure and value sets for reporting the data elements collected during a cardiac catheterization and/or PCI to the NCDR.
- **Image-Enabled Office (IEO):**
 - Bi-directional integration of medical imaging equipment and office EHR using Web technologies.
 - Applies to cardiology, orthopedics, women's health, gastroenterology, primary care.
- **Cath Report Content (CRC):**
 - Defines an HL7 CDA structured report (XML) to facilitate consistency, accuracy, and semantic interoperability of Diagnostic Cath, Angiography, and PCI procedure reports and findings.
- **Cardiac Image Report Content (CIRC):**
 - Defines an HL7 CDA structured report (XML) to facilitate consistency, accuracy, and semantic interoperability of imaging findings.

For a complete overview of the solutions provided by all IHE Cardiology Profiles, go to:

http://wiki.ihe.net/index.php?title=Profiles#ihe_Cardiology_Profiles

Laboratory

The Laboratory domain in IHE addresses information sharing and workflow related to in vitro diagnostic testing performed in clinical laboratories as well as point of care testing.

The systems involved are EHR Systems in hospital and ambulatory care settings, clinical lab and public health lab, robotic specimen container distributors, automated devices in the laboratory work area, IVD analyzers, and middleware systems handling a set of analyzers.

IHE Laboratory Profile highlights are

- **Inter-Laboratory Workflow (ILW):**
 - Supports the workflow of orders and results with a subcontracting laboratory.
- **Laboratory Analytical Workflow (LAW):**
 - Workflow of test orders and results with IVD specimens on Analyzers and LIS
- **Cross-enterprise Lab Document Sharing (XD*-LAB):**
 - A CDA based lab result document to be shared with XDS.

For a complete overview of the solutions provided by all IHE Laboratory Profiles, go to:

http://wiki.ihe.net/index.php?title=Profiles#ihe_Laboratory_Profiles

Patient Care Devices

The Patient Care Device domain in IHE is concerned with use-cases in which at least one actor is a regulated patient-centric point-of-care medical device that communicates with clinical information systems managing medical records or nursing. The Device Enterprise Communication (DEC) profile and other related PCD Profiles ensure the standardized flow of structure device data for over 200 different types of devices that are increasingly adopted by the market both in care delivery and home (used by Continua Health Alliance).

For a complete overview of the solutions provided by all IHE Patient Care Devices Profiles, go to:

http://wiki.ihe.net/index.php?title=Profiles#ihe_Patient_Care_Device_Profiles

Pharmacy

The Pharmacy domain in IHE addresses information sharing, workflow and patient care in both community and hospital pharmacies. The objective is to develop ways to automate collaborative workflow between physicians and pharmacists in both community and hospital pharmacy environment.

IHE Pharmacy Profile highlight is

- **Pharmacy Medication List (PML):**
 - Describes the content and format of a Medication List document generated during a process in which a health care professional (physician, pharmacist, nurse, etc.) requests this information (e.g., to support its prescribing).

- **Community Medication Prescription and Dispense (CMPD):**
 - Integrates prescription, validation and dispensation of medication in the ambulatory sector. Profile is intended to be used with Pharmacy Prescription (PRE), Pharmacy Pharmaceutical Advice (PADV) and Pharmacy Dispense (DIS).

For a complete overview of the solutions provided by all IHE Pharmacy Profiles, go to:

http://wiki.ihe.net/index.php?title=Profiles#ihe_Pharmacy_Profiles

Anatomic Pathology

The Anatomic Pathology domain in IHE addresses collaborative work in Anatomic Pathology, based on the creation and sharing or exchange of electronic information, including data and images, during the complex workflow from specimen reception to report transmission, storage and analysis. This includes surgical pathology, cytopathology, autopsy, electron microscopy, molecular pathology. The goal is a comprehensive electronic pathology record of the patient, of which images may be a significant part.

IHE Anatomic Pathology Profile highlights are

- **Anatomic Pathology Workflow (APW):**
 - Integrates ordering, imaging and reporting for basic pathology exams.
- **Anatomic Pathology Reporting to Public Health (ARPH):**
 - Transmits anatomic pathology reports to public health organizations (cancer registries, centers for diseases control, screening organizations, etc).
- **Anatomic Pathology Structured Report APSR):**
 - Defines templates for anatomic pathology structured reports for cancers, benign neoplasms and non-neoplastic conditions.

For a complete overview of the solutions provided by all IHE Anatomic Pathology Profiles, go to:

http://wiki.ihe.net/index.php?title=Profiles#ihe_Anatomic_Pathology_Profiles

Patient Care Coordination

The Patient Care Coordination domain in IHE addresses integration issues that cross providers, patient problems or time, with general clinical care aspects including document exchange, order processing, and coordination with other specialty domains. It addresses workflows that are common to multiple specialty areas and the integration needs of specialty areas that do not have a separate domain within IHE.

IHE Patient Care Coordination Profile highlights are

- **Patient Care Plan (PtCP):**
 - Defines a centralized patient care plan and provides a method to reconcile and consolidate the many disparate care plans that can be attached to a patient.
- **Early Hearing Detection and Intervention-Workflow Definition (EHDI-WD):**
 - Built upon the ITI XDW, and specifies a standard workflow to orchestrate the collection and exchange of newborn hearing screening information between clinical and EHDI program public health information systems.

- **CCDA Harmonization:**
 - Update **IHE** PCC Templates to be consistent with the most recent version of HL7 templates published in the **IHE** Health Story Consolidation Implementation Guide.
- **Retrieve Clinical Knowledge (RCK):**
 - Describes how Health IT systems, Personal Health Records, and HIEs can retrieve clinical knowledge on a topic suitable for presentation to a clinician or patient.

For a complete overview of the solutions provided by all **IHE** Patient Care Coordination Profiles, go to: http://wiki.ihe.net/index.php?title=Profiles#ihe_Patient_Care_Coordination_Profiles

Quality, Research and Public Health

The Quality, Research and Public Health domain in **IHE** addresses the infrastructure and content necessary to share information relevant to quality improvement in electronic patient care and health care records; facilitate interoperability between the clinical care system and clinical research; facilitate interoperability between the healthcare system and public health.

IHE Quality, Research and Public Health Profile highlights are

- **Birth and Fetal Death Reporting (BFDR):**
 - Describes the content and format to be used within the pre-population data part of the Retrieve Form Request transaction from the RFD Integration Profile.
- **Drug Safety Content (DSC):**
 - Describes the content pertinent to the drug safety use case required within the Retrieve Form for Data-Capture (RFD) pre-population parameter.

For a complete overview of the solutions provided by all **IHE** Quality, Research and Public Health Profiles, go to: http://wiki.ihe.net/index.php?title=Profiles#ihe_Quality.2C_Research.2C_and_Public_Health_Profiles

Connectathon Registration Process



The event information can be found at connectathon.ihe-europe.net →

Here a short summary of the registration process:

**Identify
the list of
actors and
Profiles that
you wish
to test**

- Create an account on [Gazelle](#) → (only if you do not have one)
- Update organisation information
- Register system information
- Copy and start with systems from previous sessions
- Print and send the contract
- Registration is complete when the payment is confirm and contract is received by the Project Manager.
- Webinar for participants – watch for details
- Limit for log return – watch for details
- **Connectathon in Bochum/Germany on 11-15 April 2016**

Do not wait **until the last day** to register your system and your participants

Registration
opens on
**December 1,
2015**

End of
registration on
**January 15,
2016**

Payment
deadline on
**February 29,
2016**

Links

- [Connectathon Results](#) →
- [Documentation](#) →
- [IHE Integration Statement template](#) →
- [IHE Technical Frameworks](#) →
- [IHE Success stories](#) →
- [Link to Product Registry](#) →
- [Support](#) →

IHE International Conformity Assessment Program

The testing performed is based on an ISO 17025 quality system in accordance with the IHE International Conformity Assessment Scheme. It will be conducted under supervision of COFRAC Accredited Kereval's qualified testing team and test session manager. An initial set of IHE Profiles used for sharing regional health records are tested – **XDS.b, PIX, PIXV3, PDQ, ATNA and CT** – This list is expected to expand based on the demand from projects and vendors.

For details see <http://ihe.net/Conformity-Assessment>

Products submitted must be either market released products or a planned product expected to be released within 6 months of the Conformity Assessment Test Session. To engage in Conformity Assessment testing the vendor must have passed the IHE Connectathon tests within the prior 2 years for the appropriate IHE Profiles targeted for Conformity Assessment. The ISO 17025 Accredited Testing Laboratory will deliver an IHE International Conformity Assessment Report that is delivered to the vendor and published on the IHE International Website on successful completion of testing.



Register now for testing the following integration profiles: **XDS.b, XDS-MS, XDS-SD, PIX, PDQ, ATNA, CT**. Products can be tested for Conformity Assessment now.

For more information:

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[IHE-Services](#) →