

# Board Report: IHE ITI Domain

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## **Sponsors:**

Health Information Management Systems Society (HIMSS)

## **Leadership:**

- Secretariat: Bell, Sarah [Sarah.Bell@himss.org](mailto:Sarah.Bell@himss.org)
- Board Representative: ITI Co-chairs for 2022
- Plan Cmte Co-chair: John Moehrke, ByLight Consulting
- Plan Cmte Co-chair: Steve Nichols, GE Healthcare
- Tech Cmte Co-chair: Luke Duncan, PATH
- Tech Cmte Co-chair: Oliver Egger, ahdis ag

## **Membership Rosters:**

Planning and Technical Committee:

[https://docs.google.com/spreadsheets/d/1IQ4dahBiXrILO7NBskS5pcJqfkdwfygiHwq\\_Q7ew](https://docs.google.com/spreadsheets/d/1IQ4dahBiXrILO7NBskS5pcJqfkdwfygiHwq_Q7ew)

ITI Technical Google Group: 575 Members

ITI Planning Google Group: 234 Members

MHD Implementers Google Group: 263 members

IHE XDS Implementors Google Group: (unknown)

## **Activity:**

- Domain Scope: The IT Infrastructure Domain defines interoperable infrastructure for the secure sharing of healthcare information independent of clinical domain. Interoperable infrastructure is necessary to support common IT functions for a variety of use cases but is rarely visible to the end user. Components supporting interoperable infrastructure may be embedded in applications but are often deployed as a shared resource within an organization or a regional or national health information exchange.
- Current Cycle Timeline/Milestones: [ITI Project Planning](#)
- Background: IHE ITI was established by HIMSS & RSNA in 2002 in order to address use cases that cross multiple clinical domains and rely on a common IT Infrastructure.

## **Most Significant Profiles:**

Title	# passing @Cthon		# product @Registry		Description	External Significance
	20	22	20	22		
		2 0 2 1		2 0 2 1		
Consistent Time (CT)	48	41	78	*	Time synchronization	<ul style="list-style-type: none"><li>• Endorsed by the European Commission</li><li>• Dependency for several other profiles</li></ul>
Audit Trail and Node Authentication (ATNA)	32	29	67	138	Establishes security measures which, together with the Security Policy and Procedures, provide patient information confidentiality, data integrity and user accountability	<ul style="list-style-type: none"><li>• Endorsed by the European Commission</li><li>• Support / Alignment with MDR 17.4, 23.4</li><li>• NEMA Manufacturer Disclosure Statement for Medical Device Security MDS2</li><li>• DoD App Security STIGs</li></ul>

Cross-Enterprise Clinical Documents Share (XDS.b)	20	23	43	51	Provides a standards-based specification for managing the sharing of documents.	<ul style="list-style-type: none"> <li>• Endorsed by the European Commission</li> <li>• Active Implementors Group</li> <li>• 2,360 results Google Scholar search terms "IHE XDS" (Enterprise and regional document sharing)</li> </ul>
Mobile access to Health Documents (MHD)	10	16	9	*		<ul style="list-style-type: none"> <li>• FHIR-based document sharing</li> <li>• Projection testing</li> </ul>
Cross-Enterprise Document Reliable Interchange (XDR)	8	7	15	*		Lightweight point-to-point XDS
Cross-Enterprise Document Sharing of Scanned Documents (XDS-SD)	8	6	12	*		<ul style="list-style-type: none"> <li>• Endorsed by the European Commission</li> <li>• XDS for non-specific formats</li> </ul>
Remove Metadata and Documents (RMD)	7	10	2	*	Supports XDS by enabling document removal from an Repository, and metadata removal from a Registry.	Part of the XDS family
Cross Community Access (XCA)	11	9	12	7	Provides query and retrieve patient relevant medical data held by other communities.	<ul style="list-style-type: none"> <li>• Endorsed by the European Commission</li> <li>• Serves as the basis for several HIEs</li> </ul>
Patient Administration Management (PAM)	12	10	8	*	Share patient demographic data within and between acute care and ambulatory settings	<ul style="list-style-type: none"> <li>• Endorsed by the European Commission</li> <li>• Supports other profiles in enterprise and regional architectures by maintaining and reconciling the identity of a patient who may be identified in different ways by disparate systems</li> </ul>
Patient Demographics Query (PDQ)	8	12	23	9	An application query to a central patient information server to retrieve a patient's demographic and visit information	
Patient Demographic Query HL7 V3 (PDQ V3)	10	12	13	8		
Patient Demographics Query for Mobile (PDQm)	7	13	0	3		
Patient Identifier Cross-referencing for MPI (PIX)	11	11	31	14	Supports the cross-referencing of patient identifiers from multiple Patient Identifier Domains	
Patient Identifier Cross-Reference HL7 V3 (PIX V3)	12	13	17	9		
Patient Identifier Cross-reference for Mobile (PIXm)	6	12	0	3		
Cross Community Patient Discovery (XCPD)	8	9	9	*		
Cross Enterprise User Assertion (XUA)	9	10	13	*	Provides means to communicate claims about the identity of an authenticated principal	<ul style="list-style-type: none"> <li>• Endorsed by the European Commission</li> <li>• Supports other profiles in authentication</li> </ul>
Basic Patient Privacy Consents (BPPC)	6	3	13	*	Supports the development and implementation of privacy policies	Supports patient opt-in and opt-out for health document sharing
Advanced Patient Privacy Consents (APPC)	5	5	5	*		
Sharing Value Sets (SVS)	5	6	1	*	Exchange of a centrally managed common, uniform nomenclature	
Restricted Metadata Update (RMU)	5	0	0	*	Provides a mechanism for changing Document Sharing metadata both within and across community	Supports document sharing profiles

# vendor @CThon is a total count of successful vendors from Connectathon-results.ihe.net

# product @Registry is a count of registered Statements from Product-registry.ihe.net.

\* = not evaluated in 2021

### **Significant Deployment Activity:**

Profiles specified in projects and offered at Projectathons (from IHE Catalyst):

- e Health Suisse [Swiss EPR Projectathon](#): ATNA, HPD, MHD, PDQV3, PIXm, PIXV3, XDS, XDS-I, XUA and SVS
- Canada Health Infoway [pan-Canadian Projectathon](#): CT, ATNA, MHD, IUA, XDS and PIX
- epSOS /eHDSI/EXPAND: XCA, XCPD, ATNA, CT, XDS-SD, XDR
- Greek NeHIF: XDS.b, ATNA, CT, XUA
- Ireland: ATNA, CT, PDQ, XDS.b, BPPC
- Abrumet: ATNA, CT, MHD, XDS, XUA
- Pan Canadian: CT, ATNA, MHD

Other Deployment Activity:

- US CareQuality, CommonWell, eHealthExchange, TEFCa, QTF: XCA, XCPD, XUA
- WHO profiling for Covid Credential -- <https://worldhealthorganization.github.io/ddcc/>

**Connectathons and Other Events:**

- The last Connectathon was in-person joint event for IHE North America & IHE Europe. The number of ITI profiles tested, and participating vendors was similar to the combined total of the 2021 NA & EU virtual Connectathons.

**New Profiles:**

- See: <https://github.com/IHE/IT-Infrastructure/projects/2>

<b>Trial Implementations</b>	<b>Status</b>	<b>Date</b>
Mobile Access to Health Documents (MHD)	Revised	12/7/2022
Secure Retrieve (SeR)	Revised	10/24/2022
Basic Audit Log Patterns (BALP)	Revised	10/21/2022
Sharing Valuesets, Codes, and Maps (SVCm)	Revised	10/21/2022
Mobile Care Services Discovery (mCSD)	Revised	8/12/2022
Patient Master Identity Registry (PMIR)	Revised	8/9/2022
Extensions to Document Metadata Subscription	Revised	7/22/2022
Internet User Authorization (IUA)	Revised	6/17/2022
Remove Metadata and Documents (RMD)	Revised	6/17/2022
XDS Metadata Update	Revised	6/17/2022
Mobile Health Document Sharing (MHDS)	Revised	3/1/2022
Patient Demographics Query for Mobile (PDQm)	Revised	3/1/2022
Patient Identifier Cross-reference for Mobile (PIXm)	Revised	3/1/2022
<b>White Papers</b>	<b>Status</b>	<b>Date</b>
Document Sharing Metadata	Publish	3/1/2022
<b>Public Comment</b>	<b>Status</b>	<b>Date</b>
Mobile Care Services Discovery (mCSD) Use Cases White Paper	Publish	11/8/2022

**In Development**

- Scheduling for Mobile
- Document Sharing Across Network Topologies
- Privacy Consents on FHIR

**FHIR Implementation Guides** (<http://www.fhir.org/guides/registry/>)

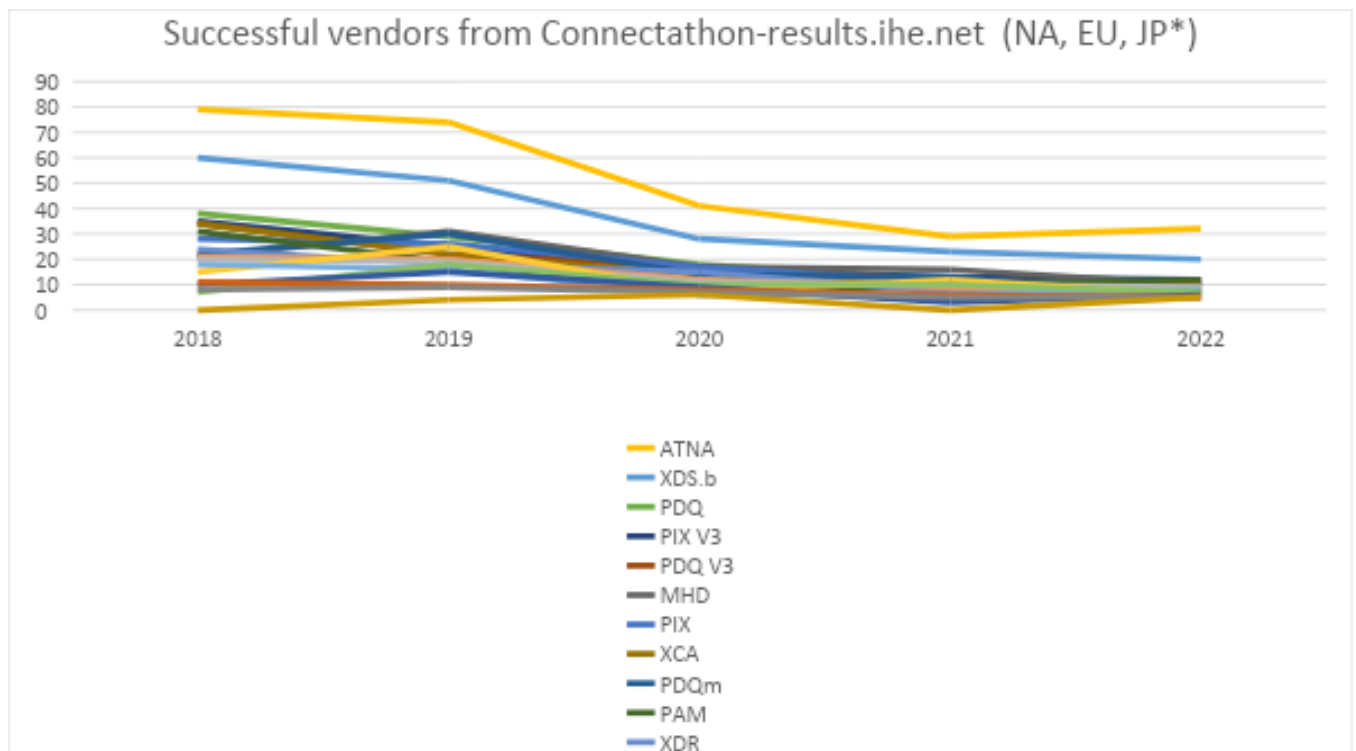
- FormatCode Vocabulary
- Mobile access to Health Documents (MHD)
- Mobile Health Document Sharing (MHDS)
- Mobile Care Services Discovery (mCSD)
- Basic Audit Log Patterns (BALP)
- Patient Master Identity Registry (PMIR)
- Sharing Valuesets, Codes, and Maps (SVCM)
- Patient Identifier Cross-reference for Mobile (PIXm)
- Patient Demographics Query for Mobile (PDQm)

#### Publication of Final Text Volumes to HTML

- Publication site: <https://profiles.ihe.net/>
- Staging / archive: <https://github.com/IHE/publications>

#### Trends:

- There is strong interest in profiles using FHIR for API use, and for green fields.
- The Document Sharing infrastructure continues to be the dominant HIE.
- There is interest in using FHIR-Document (International Patient Summary) over the Document Sharing infrastructure
- There is a need for more formal testing and support for projects.
- Connectathon registrations are improving, but do not yet show a trend for IT-Infrastructure



\*Last datapoint from Japan 2019

#### Summary of Future Plans:

See: <https://github.com/IHE/IT-Infrastructure/projects/2>

- Use of \$match to support Patient lookup

- Define Finance and Insurance Services
- Convert more PDF supplements on FHIR to IG format
- Federate MHDS
- RESTful document subscription