# **IHE-Europe Connectathon Results Report**

Date of Report: November, 25th 2020

Dates of Connectathon: November, 2-6 2020

National Deployment Committee/Domain Committee Sponsoring Connectation: IHE - Europe AISBL

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### **Connectathon Location (city/facility/address)** Connectathon Online Brussels

Scope of Connectathon (list domains and/or specific profiles tested and any other notable scope information including any IHE-related project testing):

IHE domains:

- 1. Radiology
- 2. IT-Infrastructure
- 3. Pathology and Laboratory Medicine
- 4. Patient Care Coordination

Size of Connectathon (number of attendees; number of vendors/systems; number of successful test results in terms of actors and profiles):

27 Companies / 39 Systems / 146 Persons 62 actors tested for 63 profiles

At the end of the event we reached the following numbers in terms of testing :

- 1. Verified test instances 1088
- 2. Partially verified test instances 34
- 3. Failed test instances 7
- 4. Test instances not verified 2
- 5. Test instances critical 0

	2020	2020/ system	2019	2019/ system		2018 /system	2017	2017 /system	2016	2016 /system	2015	2015 /syste m	201 4	2014 /syst em
Test Instances	1131	29	2554	31.92	3127	37.67	3350	29.13	3020	28.76	2401	26.98	261 3	25.62
Systems	39		80		83		115		105		89		102	
Verified	1088	27.89	1757	21.96	2938	35.40	3163	27.50	2881	27.44	2232	25.08	257 6	25.25
Failed	7	0.17	8	0.10	10	0.12	37	0.32	27	0.26	41	0.46	21	0.21
Partially Verified	34	0.87	51	0.63	173	1.73	115	1.00	68	0.65	62	0.70	37	0.36
To be Verified	2	0.05	61	0.76	24	0.29	21	0.18	29	0.28	41	0.46	8	0.08
Critical	0	0	13	0.16	11	0.13	14	0.12	15	0.14	25	0.28	11	0.11

# Testing Tools Used (tools used in testing; include discussion of who provided support for use of the tools):

- 1. IHE-Europe Supported Tools
  - a. Gazelle Test Management

- b. EVS Client
- c. Proxy
- d. Schematron Validators
- e. Order Manager
- f. Patient Manager
- g. Model Based Validators
- h. Gazelle Webservice Tester
- 2. Rocket.chat
- 3. J4CARE (supported by IHE-Europe Team)
  - a. DCM4CHEE as Central Archive
- 4. OFFIS ev
  - a. DCMCHECK (dicom validator)
- 5. GE
  - a. DCCHECK
- 6. NIST
  - a. Xdstools7
  - b. FHIR Server read write
  - c. NIST Fhir Toolkit

# Test Monitors (number of test monitors participating and sources used to recruit monitors):

31 Test Monitors were recruited. Monitors were recruited according to the process defined by IHE-Europe. Each monitor applied through a web form and declared his/her independence from the test vendors.

# Discussion Challenges and Success in Organization and Execution of Connectathon:

This first Connectation Online worked well. NIST tools were not available on Monday morning but it was fixed by the end of the day. Proxy ports were communicated at the last time (the Friday before the event) so some participants started the tests with delay due to configuration to do. The test bed has been deployed on Virtual Machines on a dedicated server in the cloud, its sizing has been sufficient.

Rocket.chat was well appreciated and made the communication easier. The onboarding of the users in Rocket.Chat has been chaotic due to a double registration to perform and many users did not follow the given procedure or did not get the procedure. IHE Services is recommending to not perform such import if other usage of Rocket.Chat is planned, but instead to invest in an SSO Integration with the Test Bed.

In terms of tooling, no other major feedback to provide.

## Public Demonstrations or Events Related to Connectathon (name/date/location):

Each day, in parallel to the Connectathon, there were specialist events including associated meetings, discussions and workshops. Additionally, VIP groups got the chance to visit the Connectathon Online floor.

### **Statistics**

statistics about the various IHE EU Connectathon are reported in the following table

	Actors			Profiles		
Year	Registered	Tested	Percent	Registered	Tested	Percent
2010	75	49	65.33%	83	47	56.63%
2011	93	64	68.82%	81	56	69.14%
2012	102	62	60.78%	116	64	55.17%
2013	109	67	61.47%	126	73	57.94%
2014	116	75	64.66%	122	75	61.48%
2015	96	71	73.96%	110	74	67.27%
2016				99	75	75.75%
2017	128	77	60.15%	141	83	58.98%
2018	141	89	63,12%			
2019	116	81	69.82%	90	62	68.88%
2020	93	62	66.66%	98	63	64.28%

The table above shows the difference between registration and actually tested actors and profiles.

Year	Systems	Organization	Monitor who verified tests	Profiles per monitor	Tested Profiles per monitor	Systems per monitor
2010	94	66	39	2.13	1.21	2.41
2011	117	75	35	2.31	1.60	3.34

2012	120	85	44	2.64	1.45	2.73
2013	102	76	46	2.74	1.59	2.22
2014	102	70	50	2.44	1.50	2.04
2105	89	70	48	2.20	1.48	1.78
2016	105	75	49	2.02	1.53	1.53
2017	115	90	56	2.61	1.48	2.05
2018	83	70	63			
2019	83	66	49	1.83	5.71	1.69
2020	39	27	29	3.37	2.17	1.34

The table above shows the progression in terms of tested systems and participating organisations. It also presents the evolution of the number of monitors and the "load" per monitor. It can be noticed that the "load" per monitor is lower for the 2020 ONLINE CAT, this has been necessary to assure a quick verification cycle between testers and monitor and keep the testing experience of participants satisfying even completely remote.