

MINUTES

DICOM WG 10-Strategic Advisory

Joint meeting of
DICOM WG-10 Strategic Advisory and
DICOM WG-29, Education, Communications & Outreach Rennes, France
Thursday 4 April 2019, 0900 – 12:30 (Rennes local time)

Present	First Name	Last Name	Organization	Voting Status
	Bruce	Bray	ACC/University of Utah Health Care	Observer
	J. Michael	Fitzmaurice	AHRQ	Observer
	Wim	Guijt	Agfa HealthCare	Observer
Remote	Paul	Seifert	Agfa HealthCare	Alt. Voting
	Bill	Wallace	Agfa HealthCare	Observer
	Rainer	Wegenkittl	AGFA HealthCare	Observer
Present	John	Carrino	American College of Radiology	Observer
	Steven	Horii	American College of Radiology 2	Observer
	Charles	Kahn	American College of Radiology 3	Voting
	James	Philbin	American College of Radiology 4	Voting
Present	Veeratrishul	Allareddy	American Dental Association	Alt. Voting
	Gregory	Zeller	American Dental Association	Voting
	David	Leong	Analogic Corporation	Observer
	Robert	Godward	Apteryx, Inc.	Observer
	Tyler	Sutton	Apteryx, Inc.	Observer
	Patrick	Williams	Apteryx, Inc.	Observer
Present	Emmanuel	Cordonnier	b<>com	Voting
Present	Kevin	O'Donnell	Canon Medical Research USA, Inc.	Voting
	Jason	Kennedy	Carl Zeiss Meditec AG	Alt. Voting
	Enis	Kurspahic	Cerner Sweden AB	Observer
	Allan	Noordvyk	Change Healthcare	Observer
	Elliot	Silver	Change Healthcare	Voting
	Jere	Darling	DatCard Systems, Inc.	Observer
	Daniel	Ostrow	DICOM Grid, Inc.	Observer
	Donald	Van Syckle	DVS Consulting, Inc.	Observer

	Abhinav	Singh	Emids Technologies	Observer
	Sergio	Santoro	Eurisko	Observer
	Peter	Mildenberger	European Society of Radiology (ESR)	Observer
	Robert	Horn	Fairhaven Technologies	Alt. Voting
	Masao	Murata	FUJIFILM Corporation	Observer
	Zhuohui	Sun	GE Healthcare	Observer
	Zhanfeng	Xing	GE Healthcare	Observer
	Michio	Kimura	Hamamatsu University School of Medicine	Observer
	Cedric	Tavernier	IMAGE ET	Observer
	Eric	Poiseau	INRIA Rennes	Observer
	Charles	Parisot	InteropEhealth	Observer
	Jörg	Riesmeier	IT Consultant	Observer
	Gunter	Zeilinger	J4Care GmbH	Observer
	Makoto	Suzuki	JIRA	Alt. Voting
Present	Nakano	Shinichi	JIRA	Observer
Present	Akihiro	Yomoda	JIRA	Voting
	Il Kon	Kim	Kyungpook National University	Observer
	Sungkee	Lee	Kyungpook National University	Observer
	Harry	Solomon	Laitek	Observer
Present	Fred	Behlen	Laitek Inc.	Voting
	Razvan	Costea-Barlutiu	Laitek Inc.	Observer
	Douglas	Sluis	Laitek Inc.	Observer
	Bronson	Hokuf	Laurel Bridge Software, Inc.	Observer
	T. Roger	Keane	Laurel Bridge Software, Inc.	Observer
	Peyman	Najmabadi	Leica Biosystems Inc.	Observer
	Arvind	Thiagarajan	Matrixview USA Inc.	Observer
Present	Kenneth	Persons	Mayo Clinic	Voting
	Zoya	Nikolayev	Medasys	
	Mark	Halliday	Medtronic, Inc.	Observer
	Ronald	Cowan	Merge Healthcare an IBM Company	Observer
	William	Lingley	Merge Healthcare an IBM Company	Observer
Remote	Luiza	Kowalczyk	MITA	Observer
Present	Lisa	Spellman	MITA	Observer
	Robert	Leif	Newport Instruments	Observer
	Brad	Genereaux	NVIDIA	Observer
	Marco	Eichelberg	OFFIS - Institute for Information Technology	Observer
	David	Lambert	OHSU	Observer
	Michael	Onken	Open Connections GmbH	Observer
Present	Jeroen	Medema	Philips	Voting

	Chris	Melo	Philips	Observer
Present	David	Clunie	PixelMed Publishing	Voting
	Nadia	Harhen	Qfix	Observer
	Win	Swarr	QualiTest Group	Observer
	Justin	Ryan	Rady Children's Hospital San Diego	Observer
	Kent	Hutson	RBMA	Observer
	Terry	Dolwick	Riverain Medical	Observer
	Krister	Valtonen	Sectra AB	Observer
	Michael	Jonas	Siemens Healthcare GmbH	Observer
Present	Andreas	Klingler	Siemens Healthcare GmbH	Voting
Present	Björn	Nolte	Siemens Healthcare GmbH	Alt. Voting
	Antje	Schroeder	Siemens Healthcare GmbH	Alt. Voting
	Nikolaus	Wirsz	Siemens Healthcare GmbH	Observer
	Abhijit	Gulab	Siemens Healthineers	Observer
	Gianluca	Paladini	Siemens Medical Solutions USA, Inc	Observer
	Joel	Chabrais	Société Française de Radiologie	Observer
	Cheryl	Kreider Carey	Society for Imaging Informatics in Medicine	Voting
	Markus	Sabin	softgate GmbH	Observer
	Stephen	Vastagh	Standards Management Company	Observer
	Corey	Cochran	Stryker Communications	Observer
	Paul	Sovellius	The Advanced Surgical Visualization Consortium	Observer
	Björn	Andersen	Universität zu Lübeck	Observer
Present	Lawrence	Tarbox	Univ of Arkansas for Medical Sciences	Observer
Present	Marc	Kaemmerer	VISUS Health IT GmbH	Voting
	Sebastian	Korber	VISUS Technology Transfer GmbH	Observer
	Jonathan	Whitby	Vital Images, Inc.	Alt. Voting
	Chris	Lindop		Observer
	Bas	Revet		Observer
	Arianna	Sunbear		Observer

1. Opening

1.1 Call to order and roll call.

1.2 Antitrust and patent guidelines review.

1.3 Agenda was approved with no changes.

1.4 Review of minutes from 17 January 2019 (joint w/ISO, HL7). Minutes were approved with no changes.

2. Thank you to Dr. Greg Zeller

– Dr. Zeller served 8 years representing user community. We greatly appreciate his past service.

3. User co-chair

– Introduction of new User co-chair Kenneth Persons of the Mayo Clinic.

– See introduction presentation in today's meeting folder

4. Host welcome to b<>Com

– Emmanuel Cordonnier, meeting host, welcomed DICOM to Rennes, France and the headquarters for B<>Com. Thank you, Emmanuel for hosting all three DICOM meetings.

5. 2019 SWOT Action Review

– See SWOT document for the top bullet points and details.

– User Challenges

○ Ken Persons provided feedback from user perspective

○ Most significant challenges involve exchanging images with other institutions and the resulting image management issues. Mayo receives approximately 300,000 DICOM studies each year from outside institutions – for second opinions, continuity of care, etc. Most significant challenges include:

- **No Report with Images:** The reports are either not included with the images, or sent in such a variety of ways that there is no easy way to automatically, and reliably associate, and include the report with the images. If reports are included they may come in as a SR, scanned document SC image, text file, PDF, html file, unrelated CDA, fax, etc. We recognize that much of this problem is beyond the scope of the DICOM standard.
- **Duplicate Study UID's in the VNA:** This occurs for a variety of reasons, and breaks some DICOM implementations that attempt to query/retrieve from the VNA. We spent most of the last year identifying these duplicates (approx. 400,000 studies in the VNA), stopping the source of the duplicate, and re-UID'ing or removing one of the copies in the VNA. Reasons for duplicates are many, but they almost always involve outside studies. Most common reasons include:
 - Original Mayo study provided to the patient on a CD/DVD and later patient returns to Mayo with all of their outside images on CD/DVDs, including the Mayo images – and they are imported again as an outside study.
 - Outside study is imported into Mayo and stored into the VNA as an outside study. Then outside study is retrieved from the VNA, imported into a departmental PACS for review, and the departmental PACS archives the study back to the VNA.
 - Mayo purchases a hospital/clinic that used to be an outside (non-Mayo) facility where patients frequently brought their outside images to Mayo on CD/DVDs. The images in the newly affiliated hospital/clinic PACS are migrated to the VNA creating duplicates with any “outside images” that were already imported into the VNA.

DISCUSSION

- General extended discussion about strengths and weaknesses
- There is some general disagreement about the relative perception of security weaknesses and risk
- Is the solution at the DICOM level, the software/hardware level, or education of the IT and PACS administrators on how to create a secure DICOM environment?
- Sites should do a risk analysis. Even when a site does a risk analysis, the local IT staff may not have sufficient information about imaging to conduct as thorough an analysis as needed
- There is little that can be done in DICOM technical solution for security, rather, the majority of action must occur with proper institutional security
- TLS should be enabled by default and often it is not. There was discussion that perhaps it should not be optional any longer, should be required by DICOM; however, this would be problematic for legacy systems. It was noted that a possible solution is to front-end a legacy system with an added box for TLS functionality
- DICOM does not have the power to mandate, we can make strong recommendation. MITA could also make proposal, similar to what occurred with dosage level tracking.
- NIST Cybersecurity of Excellence Task Force: NIST was looking for vendors, WG-14 encouraged vendors, but no one signed up as far as we know. Hyland is the only vendor we believe is participating
- Some aspects are outside of DICOM, such as using a self-encrypting drive or have an encrypted file system at a minimum.

Ideas Discussion

- Possibly host an Advancement of DICOM Project?
- Write a white paper with practical advice for DICOM administrators: (*How to Secure your DICOM imaging environment*)?
- A proposal to use ACME certificates was suggested to European Connectathon, they declined, preferring to stay with the issue one certificate they trust, and distribute
- DICOMWeb: Would have to support certificates
- DIMSE: There are toolkits, but are not enabled
- MITA-WG-14 Whitepaper, MITA cyber-security WG involved, but WG-14 currently lacking volunteers to write for WG-14
- Should we do a hands-on demonstration (*How to Secure your DICOM imaging environment*)? Maybe at SIIM 2020?

<Action 1> Ken Persons will speak with SIIM about doing a presentation/demonstration at SIIM 2020. Maybe demonstrate end-to-end security using DICOM and then generate a white paper as an additional outcome.

6. MITA/Secretariat Topics

6.1 DICOM Governance / Policies & Procedures status update (Jeroen, Kevin)

- Jeroen and Kevin reported on the status of the activity.
- A ballot was sent to all DICOM members for review and comment in 2018.
- The Task Group received comments which have been reviewed and disposed.

<Action 2>

- a. Publish proposed final updated version of DICOM Policies & Procedures (aka formerly known as Governance document) with comments disposition
- b. Issue CP for specific items as noted in document.
- c. Lisa to work with Kevin & Jeroen.

6.3 WG-20 leadership

- In an unfortunate occurrence of timing, both WG-20 co-chairs had to step down due to a change in their work responsibilities.
- Secretary Note: HL7 has received **one** nomination (Jonathan Whitby, Vital Images/Canon) for the **two** Imaging Integration co-chair positions currently open. Write-in nominations will be accepted during the May 2019 WGM.
- DICOM Secretariat and former co-chairs of WG-0 II, have posted notification several times calling for new chairs, but so far; only one Jonathan has volunteered.
- We are unsure if HL7 will permit just one co-chair. Bruce Bray always attends the WG-20 meetings and might be willing to be run for a user co-chair as long as the other co-chair will handle the operational aspects. NOT confirmed yet.

7. ISO Clinical Imaging Reference Standards Portfolio (RSP)

- Discuss/edit DICOM component entries; some work was done in January 2019 HL7 meeting
- WG-10 spent time working on this document during the meeting.

Next steps:

- WG-10 effort needed to finish the RSP

<Action 3> Ken Persons agreed to help fill out the tables and standard descriptions.

8. Old Business

7.1 Test driving JIRA Action Item Manager:

- Luiza has set-up test pages for DSC, WG-10 7 WG-29. Ran into a limit of 10 people, so Luiza is investigating the potential for non-profit membership and will let us know.
- MITA/NEMA has a subscription to Higher Logic (used to be Kavi) we are going to investigate expanded functionality to see if it will meet our needs. We do use the system for DICOM balloting.

9. New Business

- No new business was presented.

10. Next Meetings

- **T-cons:** Next WG-10 meeting will be a day-long meeting in Bangkok, Thailand on Monday 30 September in person and via conference call.

2019, Bangkok, Thailand

Monday-Friday, September 30 – October 4, 2019

- DICOM WG-10 – Monday, September 30, 2019, 9:00-16:00 local time
- DICOM WG-29 – Tuesday, October 1, 2019, 9:00-16:00 local time
- DICOM Standard Committee - Wednesday, October 2, 2019, 9:00-16:00 local time
- DICOM Conference- Thursday-Friday, October -3-4, 2019,

DICOM Conference, typically starts between 8:30 and 9:00, and ends around 17:00 on Day 1, and perhaps around 15:00 on Day 2. They are finalizing the details.

11. Adjournment

The meeting adjourned at 1230pm (Rennes time). Report prepared by Lisa Spellman, DICOM General Secretary.

Reviewed by counsel: CRS, May 9, 2019.