

# MINUTES

**MEETING NAME** 09-WG33: WG-33 Data Archive and Management

**MEETING PLACE/DIAL IN**

**DATE & TIME** Wednesday, August 4, 2021 | 11:00 am – 12:30 pm US ET

**PRESIDING OFFICERS** Matthew Bishop, UnityPoint Health  
 Keith Eklund, Healthcare Tech Solutions

**VOTING MEMBERS PRESENT**

|   |                  |
|---|------------------|
| AAPM  | Bevins, Nicholas |
| ACR   | Maldonado, Josh  |
| GE Healthcare                               | Nichols, Steven  |
| GE Healthcare                               | Numan, Jouke     |
| Healthcare Tech Solutions                   | Eklund, Keith    |
| Laitek, Inc.                                | Solomon, Harry   |
| Society for Imaging Informatics In Medicine | Bishop, Matthew  |
| Society for Imaging Informatics In Medicine | Carey, Cheryl    |
| Varian, a Siemens Healthineers Company      | Anghelescu, Alex |

**OTHERS** [Click here to enter text.](#)

**VOTING MEMBERS ABSENT**

|                               |                      |
|-------------------------------|----------------------|
| Ambra Health                  | Ostrow, Daniel       |
| Canon Medical Research USA    | O'Donnell, Kevin     |
| Change Healthcare             | Ho, Kinson           |
| DesAcc EMEA                   | King, Graham         |
| Argentix Informatics, Inc.    | Silver, Elliot       |
| European Society of Radiology | Mildenberger, Peter  |
| Grafimedia                    | Georgiadis, Pantelis |

|  |                        |
|--|------------------------|
| Laitek, Inc.                                   | Costea-Barluti, Razvan |
| London Health Science Center                   | Aizawa, Luiz           |
| Mach7 Technologies                             | Ulanov, Alexey         |
| Mayo Clinic Rochester                          | Persons, Kenneth       |
| PixelMed Publishing                            | Clunie, David          |
| Society for Imaging Informatics<br>In Medicine | Henson, Kyle           |
| Varian Medical Systems, Inc.                   | Schwere, Thomas        |

**DICOM** Anna Zawacki, SIIM  
**SECRETARIAT**

## **1 CALL TO ORDER AND REVIEW OF ANTI-TRUST RULES AND DICOM PATENT POLICY (Co-Chairs, Secretariat)**

The meeting was called to order. Guidelines for Conducting NEMA Meetings were read and attendance was recorded.

## **2 REVIEW AND APPROVE AGENDA (Co-Chairs)**

The agenda was reviewed and approved.

## **3 REVIEW MINUTES (Co-Chairs)**

The minutes of the previous meeting were reviewed and approved.

## **4 TOPIC ITEMS TO BE DISCUSSED (All)**

- Review & Discuss an updated New Work Item Proposal for an extended C-FIND based migration

[ftp://d9-workgrps@medical.nema.org/MEDICAL/Private/Dicom/WORKGRPS/WG33/2021/2021-08-04/WG-33\\_NWIP\\_C-FIND-for-migration\\_RND3\\_v2.docx](ftp://d9-workgrps@medical.nema.org/MEDICAL/Private/Dicom/WORKGRPS/WG33/2021/2021-08-04/WG-33_NWIP_C-FIND-for-migration_RND3_v2.docx)

[ftp://d9-workgrps@medical.nema.org/MEDICAL/Private/Dicom/WORKGRPS/WG33/2021/2021-08-04/C-FIND%20archive%20DSC%20RND2\\_v2.pptx](ftp://d9-workgrps@medical.nema.org/MEDICAL/Private/Dicom/WORKGRPS/WG33/2021/2021-08-04/C-FIND%20archive%20DSC%20RND2_v2.pptx)

Not a lot of changes from last time

Got discussion points from WG-6

Burdens associated with creating Inventory SOP Instance: technical burdens and business burdens

*Digital Imaging and Communications in Medicine*

## Introduction

Implementation of a persistent Inventory SOP Instances as introduced in Supplement 223 presents technical and business challenges for repository applications .

Technical burdens :

- Inventory IOD complexity
- New, additional services to support the coordination and reporting of the Inventory IOD creation
- System resources that are otherwise dedicated to clinical operations performed by the live source archive must be allocated to generate the Inventory IOD (300GB per 1 billion instances, as estimated by WG-33)

Business burdens:

- Repositories do not usually create new SOP instances and may lack proficiency in this.
- Greatest burden is on the outgoing (displaced repository) to implement the Inventory IOD. Considering all actors involved this actor is least incentivized to implement.

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CFIND was briefly considered in WG-33 last year but dismissed – query typically has restrictions on number of responses, CFIND queries are typically intended for human readers and there may be limitations on memory on SCP to provide response and then for migration there is some synchronous networking that's required as well.

That was dismissed due to those limitations of CFIND, but when we start to look at this a new SOP class can address these new shortcomings

## Consideration of C-FIND in WG-33

Enhanced C-FIND was briefly considered but dismissed because:

- Query typically has restrictions on number of responses
- Query requires synchronous network protocol response

A new SOP Class addresses these objections

Proposal = no changes here

We are developing an enhanced CFIND

# Proposal

## Enhanced C-FIND

- Query/Retrieve Attributes. E.g.:
  - Offset and count attributes to window across database
  - Last updated timestamp to retrieve changes (new studies, patient demographics updates from HIS/RIS) since last retrieval
  - File location, pending updates for direct access - same as Inventory IOD proposal.
  - Empty attribute list to select objects with empty value only.
- SCP Conformance requirements on mandatory attributes and window mechanism supported for predictable archive service support.

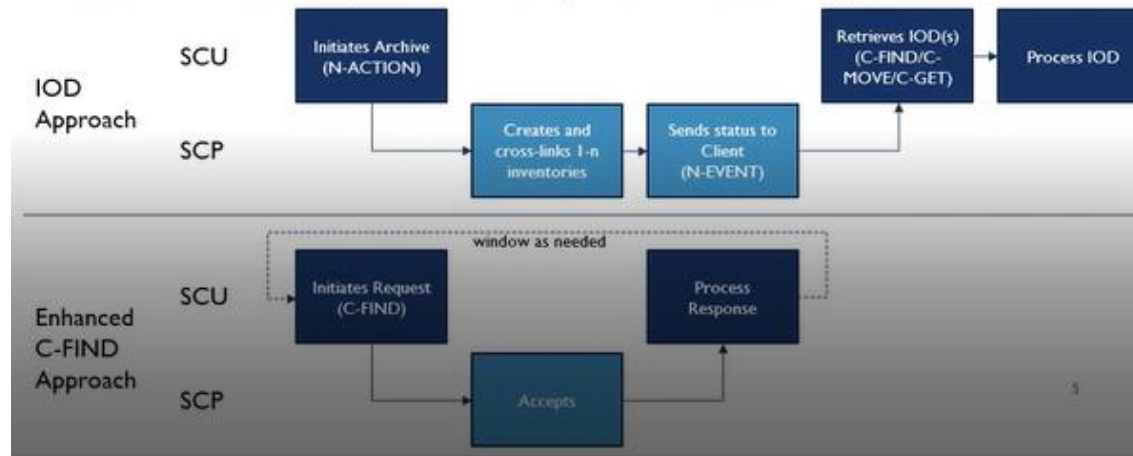
Note: Window mechanism and empty attribute matching have use cases outside of migration.

We do note that windowing and empty attribute mechanism matching have use cases outside of migration, could support others like AI or research.

New slide added since the last call – expressing a relationship of this to inventory IOD

## Relationship to Inventory IOD (Supplement 223)

- Offers a synchronous method for cases in which asynchronous approach is too complex or infeasible.
- Not intended to replace the Inventory IOD introduced in Supplement 223.



Workflows to show how they contrast with each other  
Summary of what this enables:

## This Enables

- Live, up-to-date data, with limited or no delay for initial/delta passes, and
- Full access to the filtering capabilities present in C-FIND for partial migration, and
- Complementary C-MOVE for repositories that store in non-DICOM formats, or do not support a direct access mechanism, and
- A lower barrier for client and server applications to support the migration use case, or other use cases (e.g. clinical research, business analytics, quality control, AI cohort search).

This enhancement can be built on the existing hierarchical/relational C-FIND implementation.

Feedback:

On Slide#5 – might want to note that initiating action is optional (in the IOD approach) –

If anyone thinks of anything else between now and DSC meeting, please reach out. This will be put into the NWIP template and added to the folder on FTP.

DSC meeting scheduled for Aug 16.

WG-6 will want to go through Letter Ballot first so we can try to get a first read of NWIP at the WG-6 Nov meeting, but if not, get it ready for their Jan meeting.

WG-6 meets the week of Aug 30.

Next Wg-33 Meeting will be Sept 15.

## 5 OLD BUSINESS

## 6 NEW BUSINESS

Adjourn: 12:31PM ET.

## **7 DATE AND TIME OF NEXT MEETINGS (Secretariat)**

- Continue T-con meetings bi-weekly
- Next call is Sept 15, 2021 between 11:00 am and 12:30 pm ET

Reviewed by: Carolyn Hull 10/4/21

Reviewed by Counsel 9/7/21

**NEMALINK CODE**            09-WG33

**SUBMITTED BY**            Hull, Carolyn

**SUBMITTED ON**            9/7/2021

**LEGAL APPROVAL**        Enter approval date.

**UPLOAD LOCATION**      Enter upload location.