

National Call for Integration

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But today, representing
The Electronic Communications Committee of the RSNA
And
The Strategic Development Committee of the IHE Initiative

What is the Problem?

- How can researchers at an institution like Northwestern participate in image based clinical trials?
 - As a multi-site trial participant
 - As a ‘host’ of a multi-site trial
 - Internal image based clinical trials
 - Image based drug trials, etc.

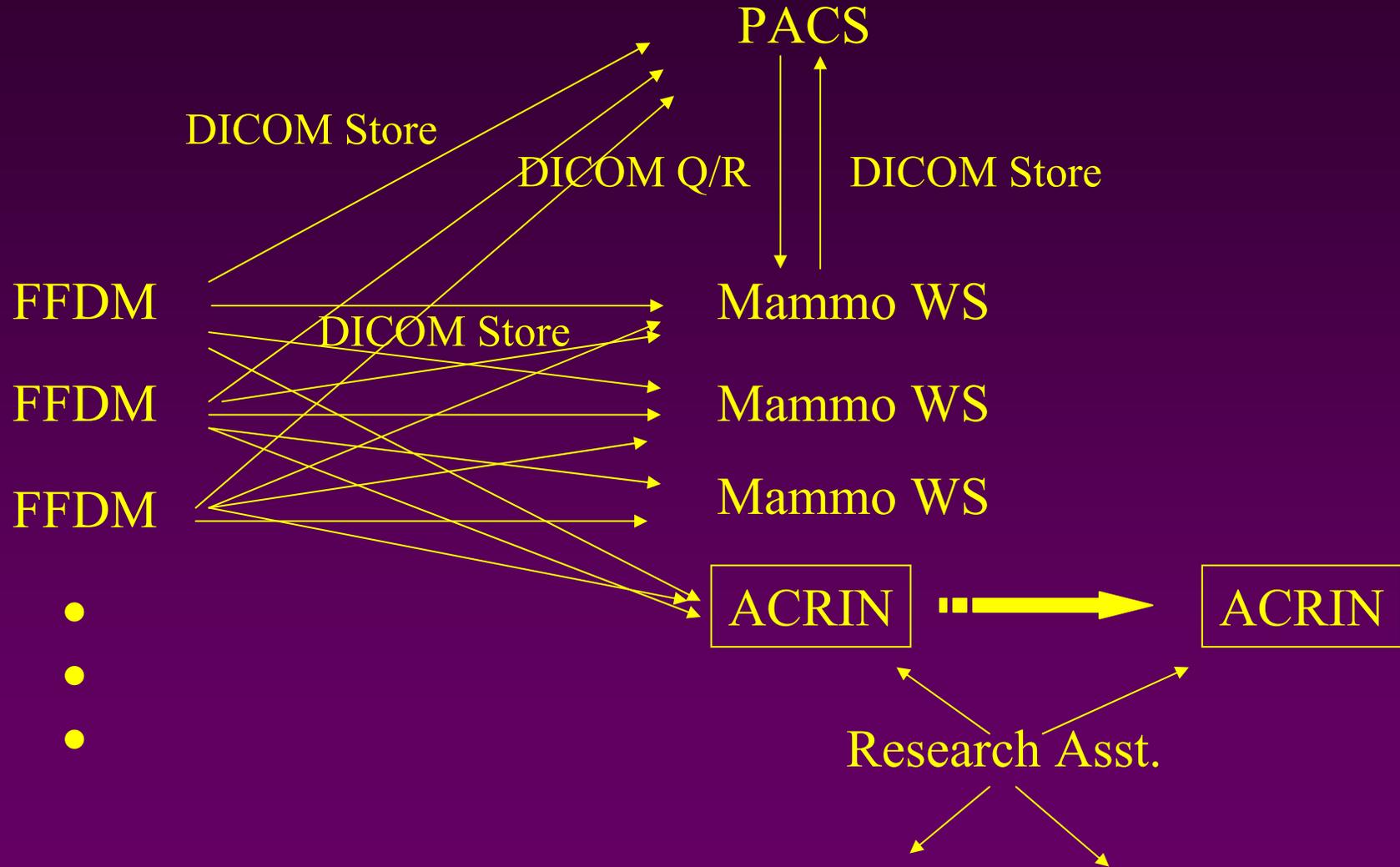
What is the problem? (II)

- 280,000 procedures per year
 - >95% film-less in big (GE) PACS
- Not enough radiologists
- Not enough technologists
- 56 Modality devices from 11 vendors
 - All connected to PACS
 - All but 2 support Modality Worklist
 - All very busy but never ‘busy enough’

What is the problem? (III)

- What do people in Dept. of Radiology do?
 - Clinical work
 - Research
 - Education
 - Administration
 - Management
- All of these have to be bolted into high volume workflow

Digital Mammo: Great Example of a bad situation



What is IHE?

- An initiative, consortium established by
 - RSNA and HIMSS
 - Now in Year 4 !!
- 5 deliverables
 1. Venues (meetings and Tcons) for discussions between users and vendors
 2. Description of common workflow problems, common information model, common vocabulary to solve these problems:
 - Actors in roles performing transactions (abstracts the notion of information systems)

5 deliverables (II)

3. Technical Framework (450 pages) specifying **precisely** how to **use existing standards** to accomplish the task
 - **DICOM, HL7, others**
4. Connect-a-thon
 - Vendors gather (next week) to test their products
5. Public Demonstrations and educational exhibits

IHE Integration Profiles

Scheduled Workflow

Admit, order, schedule, acquire & store images with notification of completed steps

Patient Information Reconciliation

Unknown patients and unscheduled orders

Post- Processing Workflow

Schedule, perform, & notify image processing & CAD steps

Charge Posting

Collection of billable procedure details

Consistent Presentation of Images

Hardcopy and softcopy grayscale presentation state

Key Image Notes

Flag & search for significant images

Simple Image and Numeric Reports

Simple reports with image links and measurements

Presentation of Grouped Procedures

Manage subsets of a single acquisition

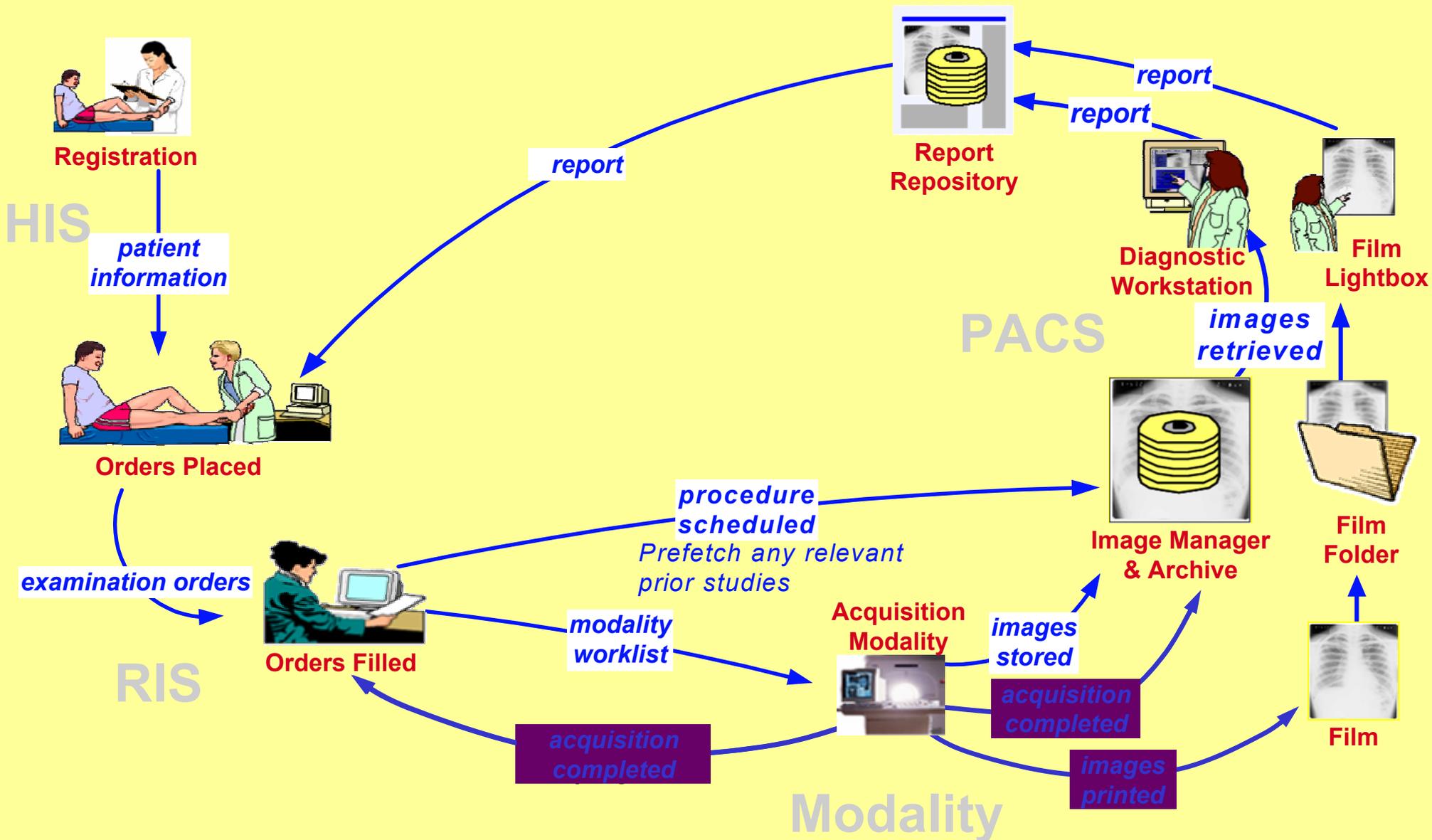
Access to Radiology Information

Retrieve & view images and reports

Basic Security

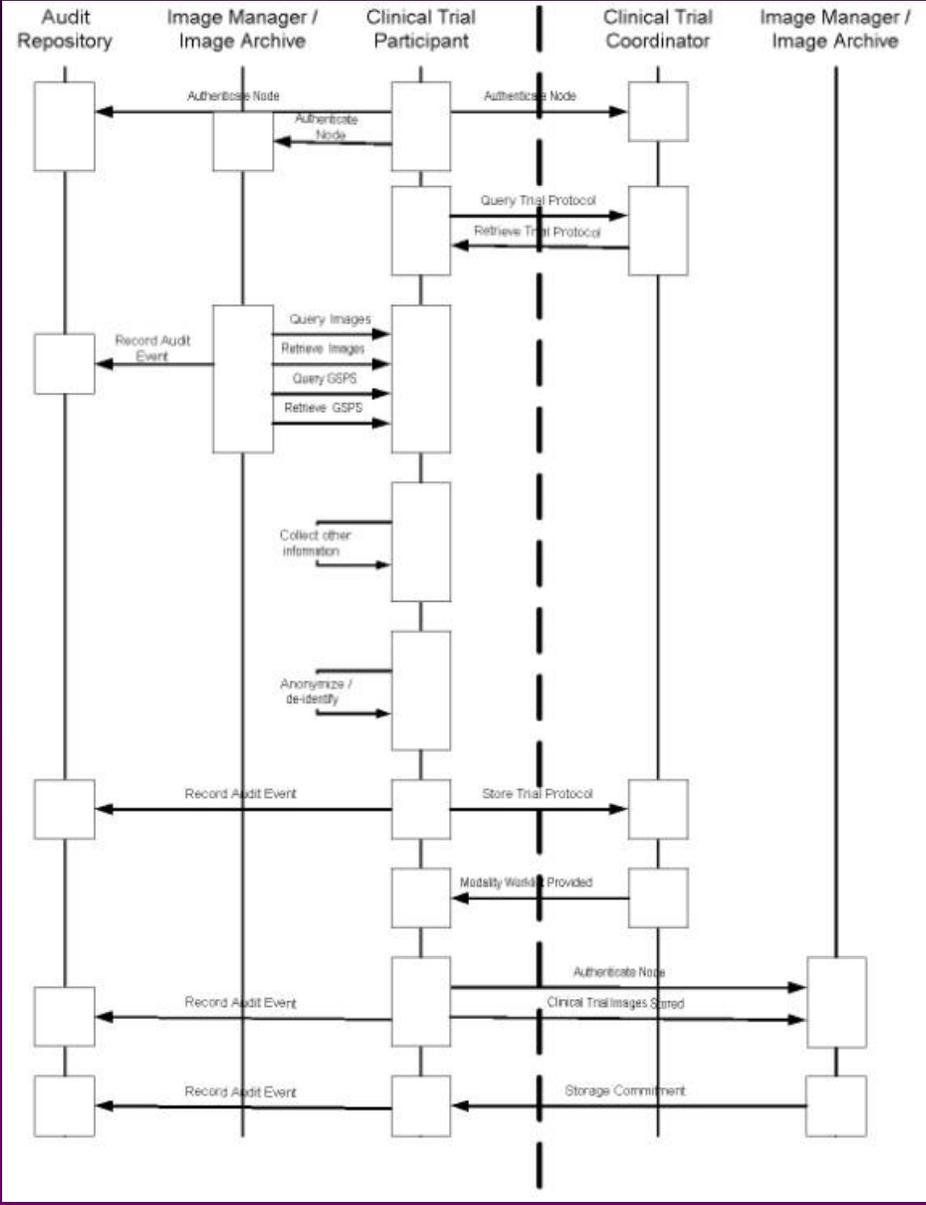
Audit Trail Consolidation & Node Authentication

Scheduled Workflow Profile



What can IHE do for Clinical Trials

- Clinical Trials Integration Profile
 - Proposed for Year 5; YOU can flesh out the details
- How to bolt clinical trials into departmental workflow
- Participation (enrollment, etc.) becomes part of routine and built into products
- A proven process where the rubber meets the road



What can you (NCI) do for IHE?

- Endorse and promote IHE as a process for successfully addressing integration of clinical trials (and other research tasks) into ‘routine’ workflow
- Help stamp out divergence, re-invention of wheels
- Identify new ‘users’ and vendors that understand ‘research workflows’ to participate in IHE

Got Milk?



Got IHE?

www.RSNA.org/IHE