



Integrating the Healthcare Enterprise

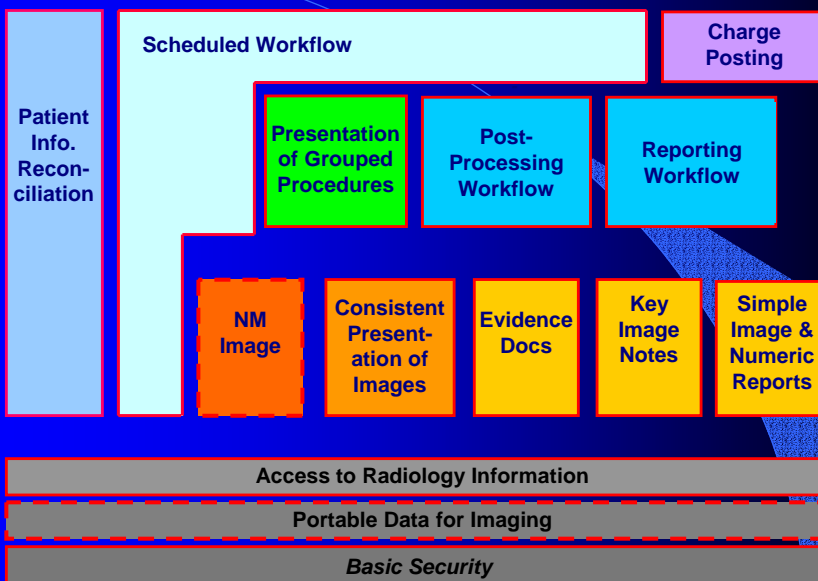
放射線部門IHEのテクニカルフレームワーク
その他の統合プロファイル

吉村仁

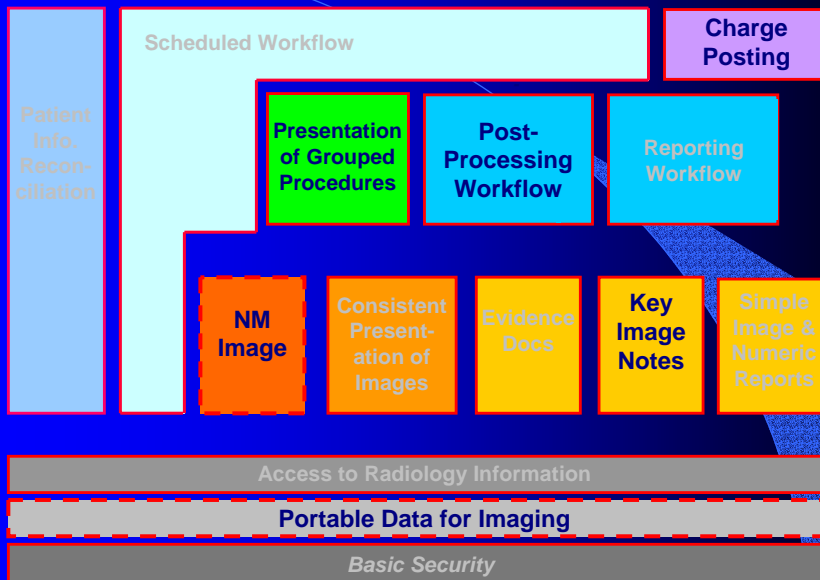
IHE-J 運営委員会
IHE-J 技術検討委員会
JIRA 医用画像システム部会



IHE Radiology Integration Profiles



その他の統合プロフィール



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IHE-Jベンダワークショップ

その他の統合プロフィール

- PGP: Presentation of Grouped Procedure
- PWF: Post-Processing Workflow
- CHG: Charge Posting
- KIN: Key Image Notes

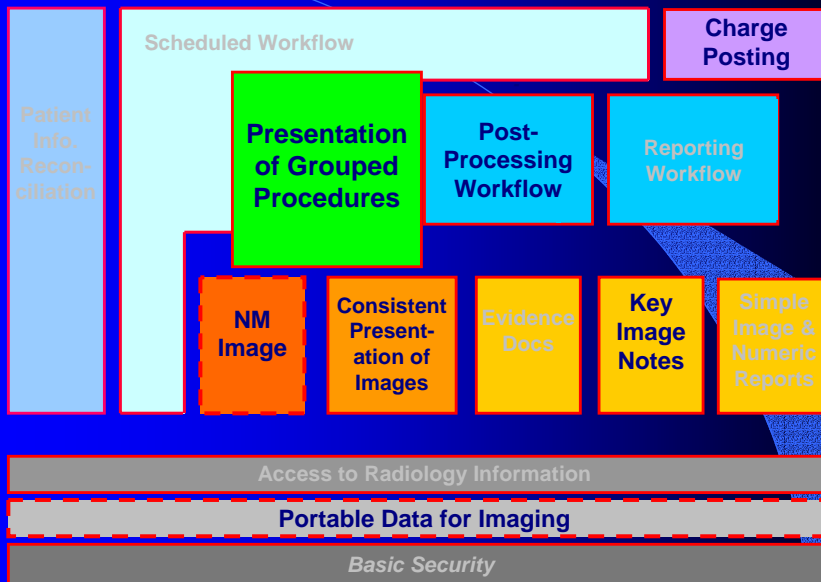


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その他の統合プロフィール



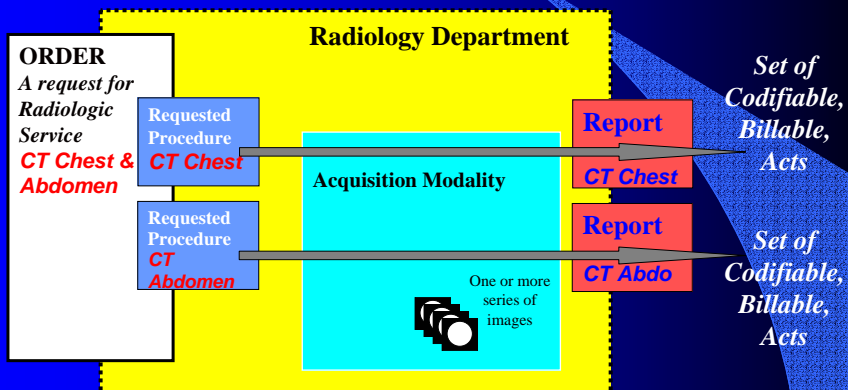
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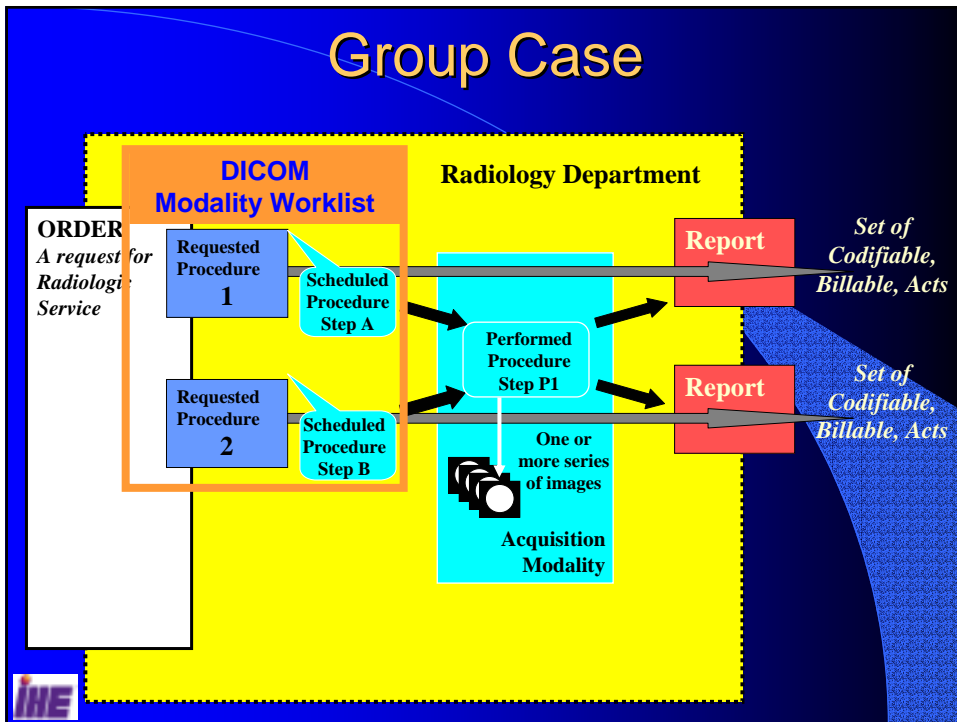
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The Group Case Approach

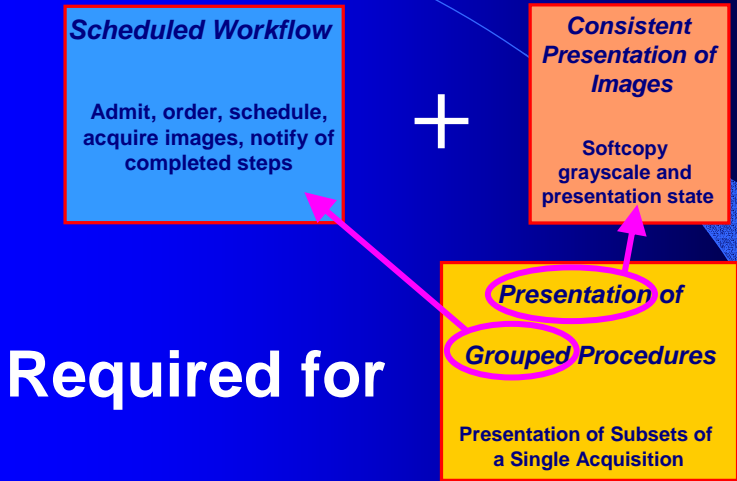
One Order – Two Procedures – **One Acquisition** - Two Reports Step



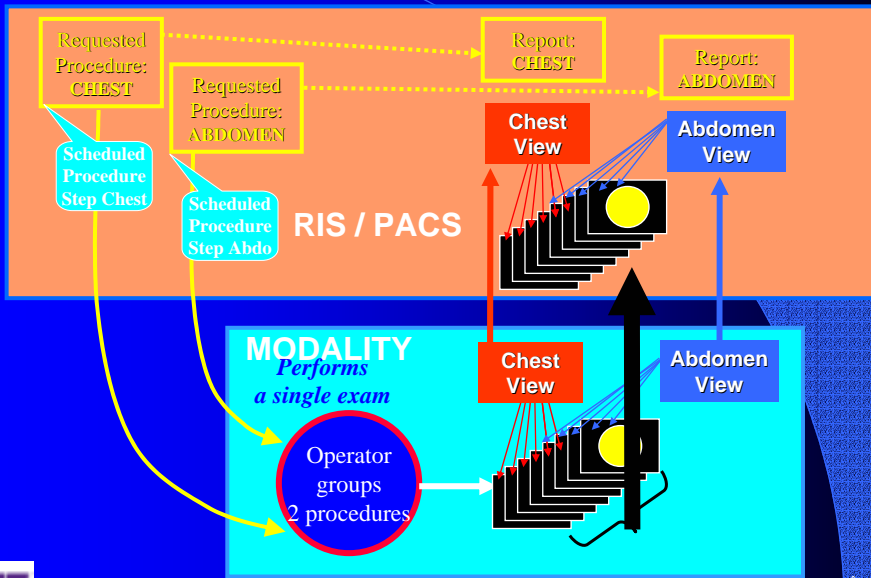
Group Case



IHE Integration Profiles



IHE – Presentation of Grouped Procedures

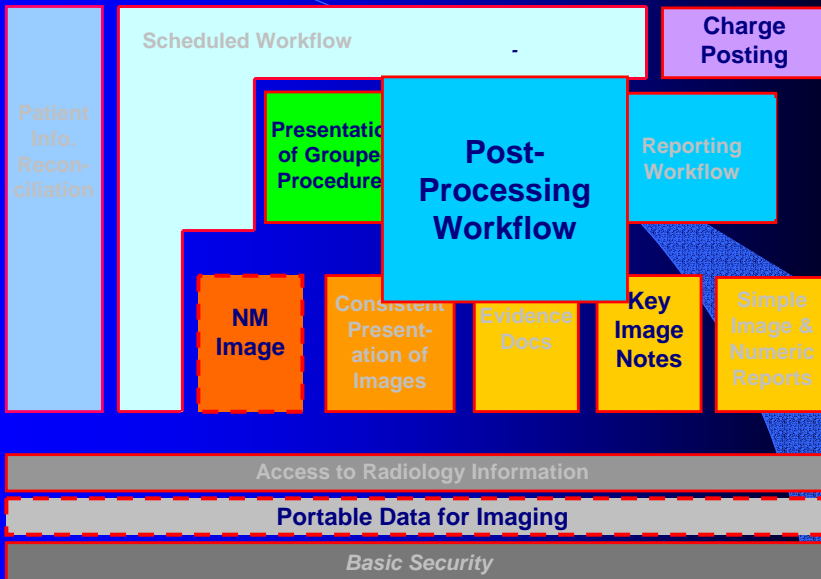


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その他の統合プロフィール



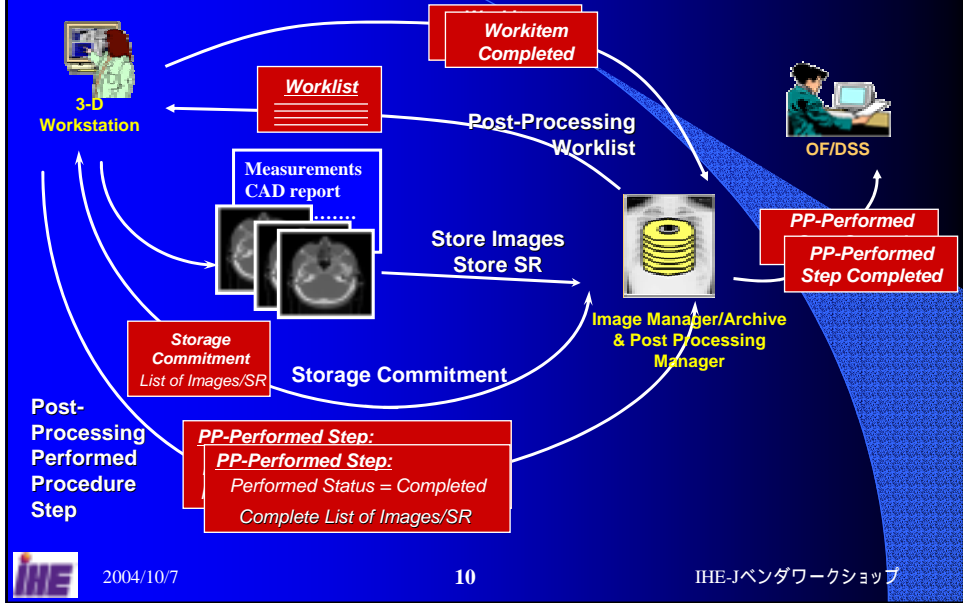
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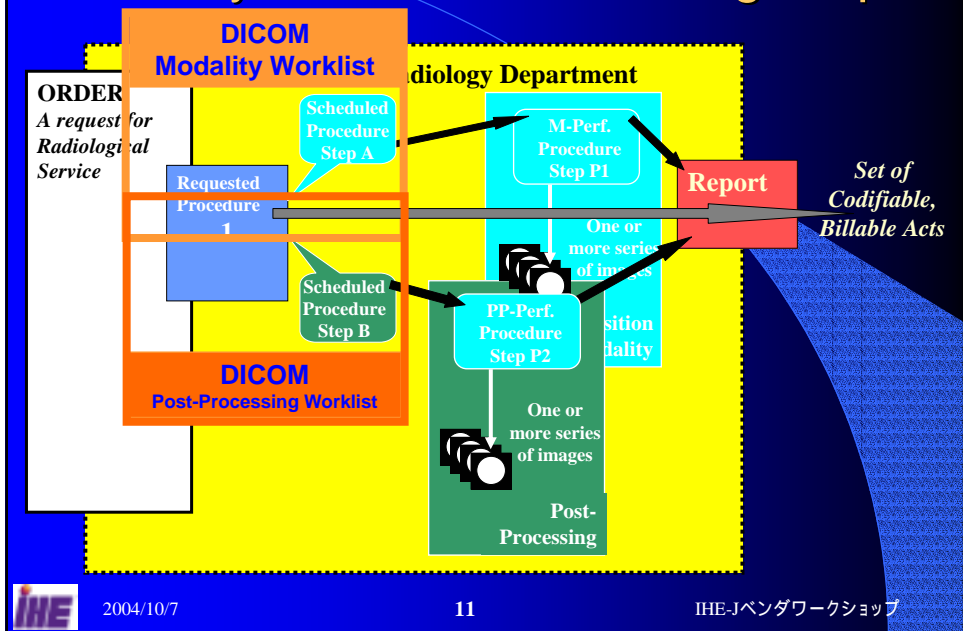
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Post-Processing Workflow

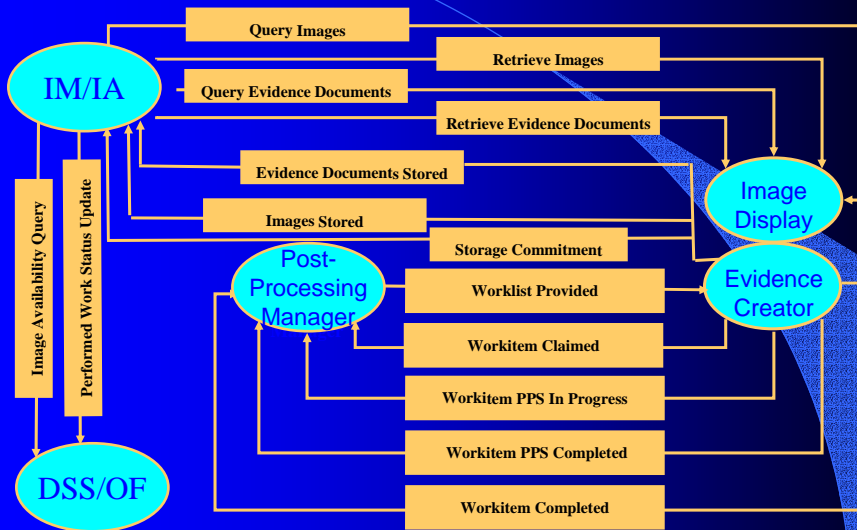
with Post-Processing Manager grouped with Image Manager



Modality and Post-Processing Steps



Actors & Transactions

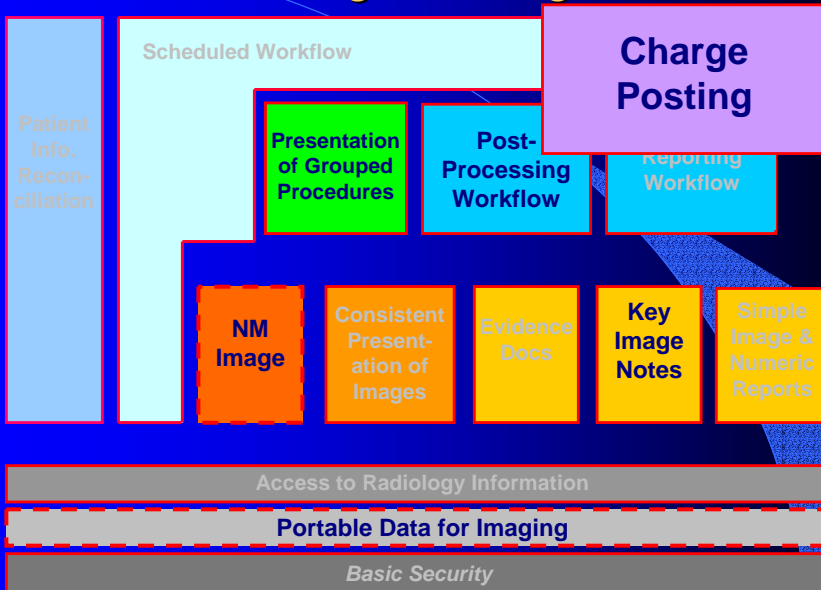


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Charge Posting

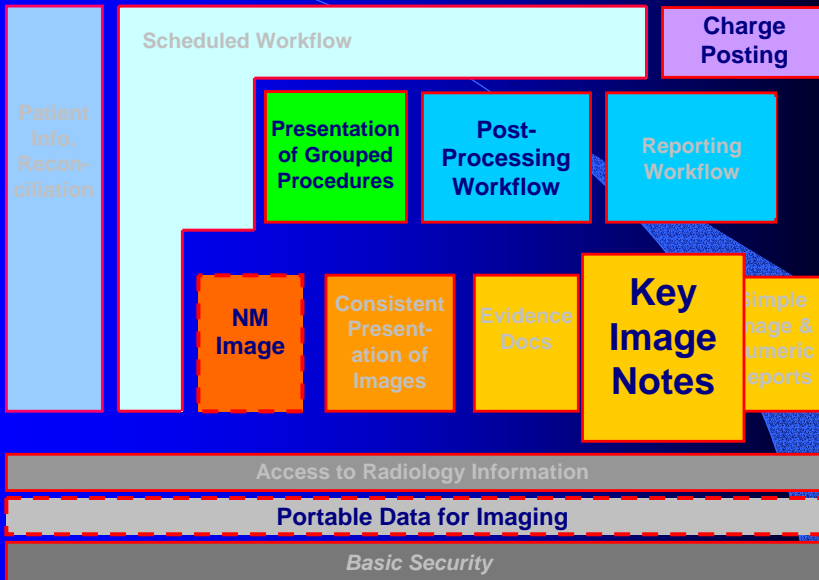


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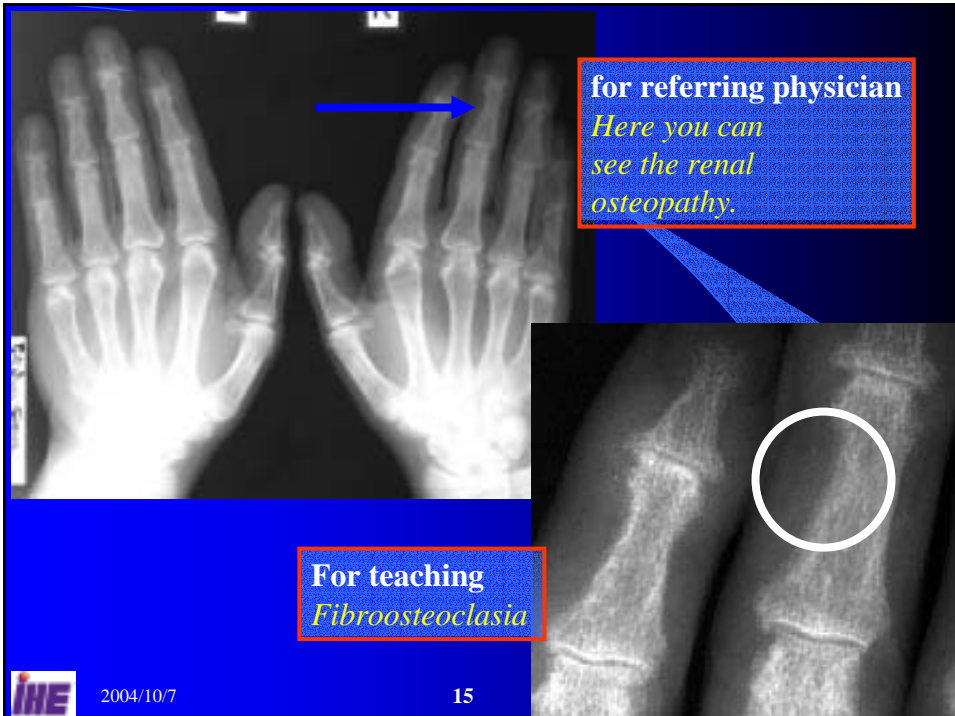
Key Image Notes



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Different notes on different images

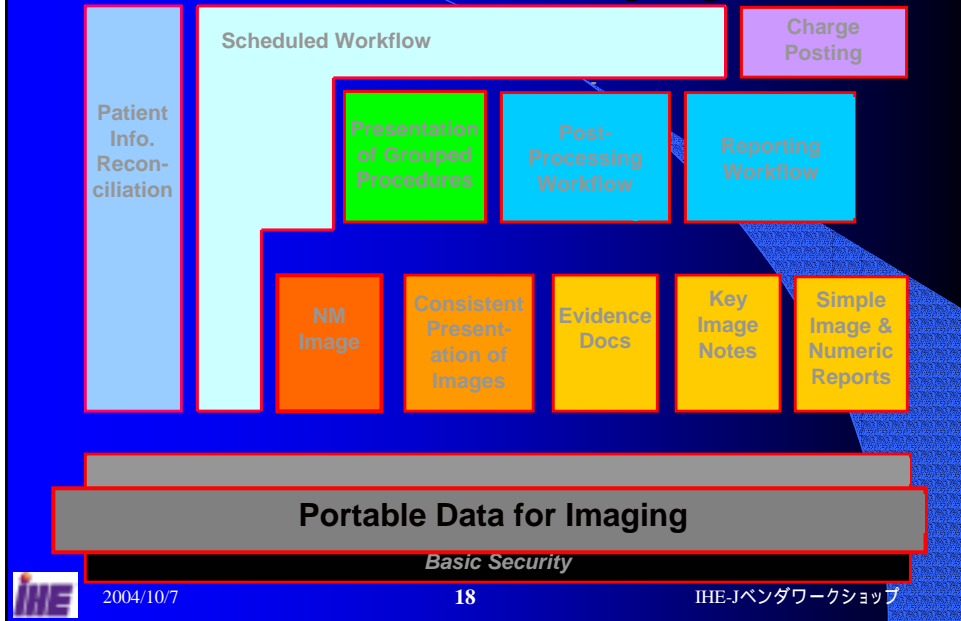
Same note on different images

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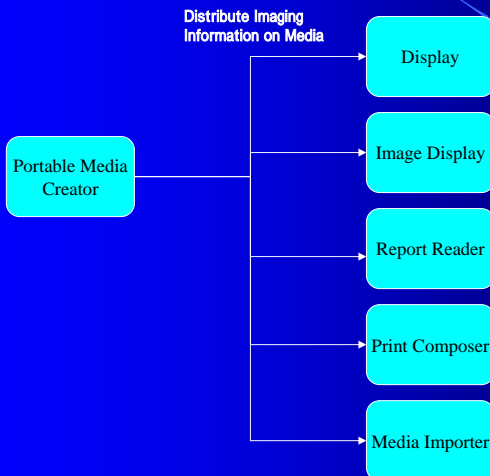
新しい統合プロフィール

- PDI: Portable Data for Imaging
- NM: NM Image
- Notification Options for Scheduled Workflow
 - Departmental Appointment Notification
 - Instance Availability Notification

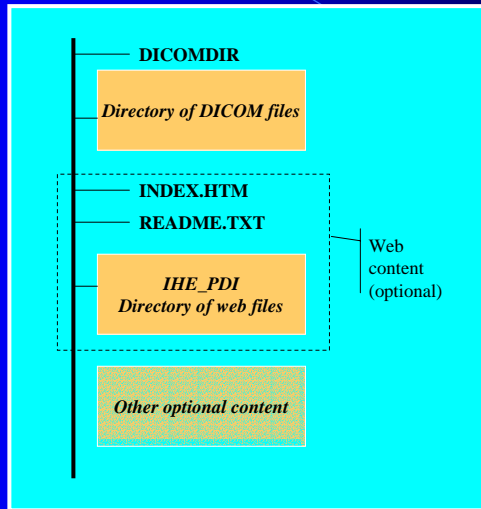
Portable Data for Imaging - PDI



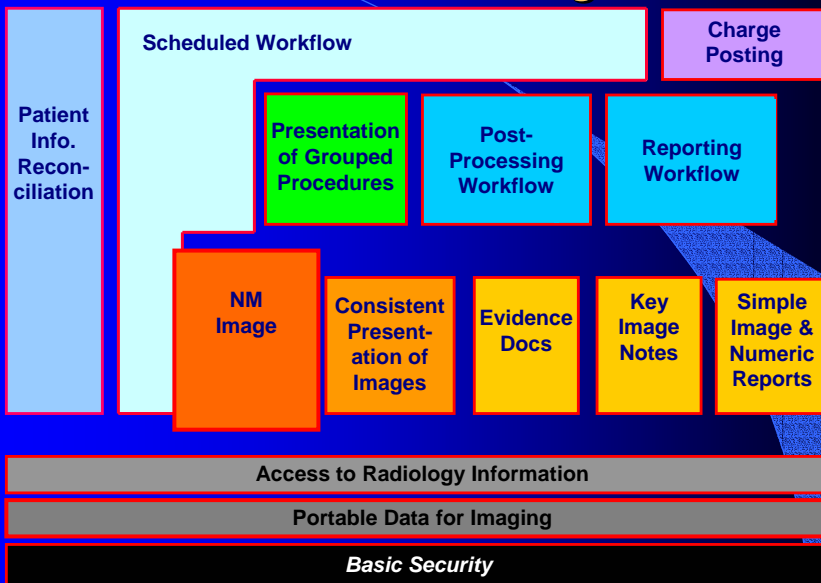
PDI – Actors and Transactions



CDROM Structure



Nuclear Medicine Image - NM



NM Image – The Problem

- DICOM NM objects are different and support in products is inconsistent
- NM clinical display practices are different and support in products is inconsistent
- Clinical Analysis Programs are used extensively (particularly for Cardiology), but no support for distribution and display of those Result Screens
- NM Users are not adept at getting these requirements accurately included in RFPs
- Vendors (especially of general purpose systems) are not adept at accurately representing their support for such features

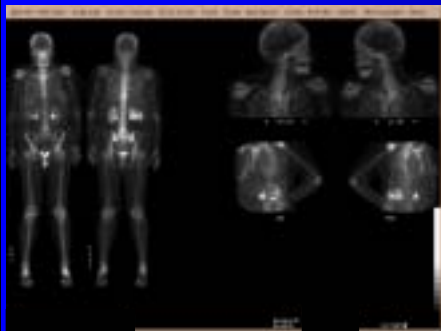


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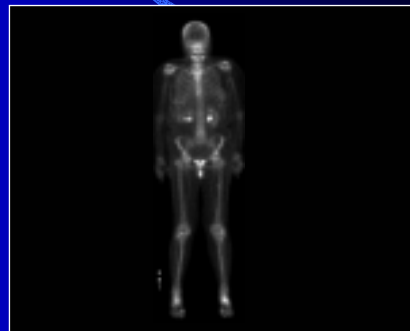
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NM Image



NM



PACS

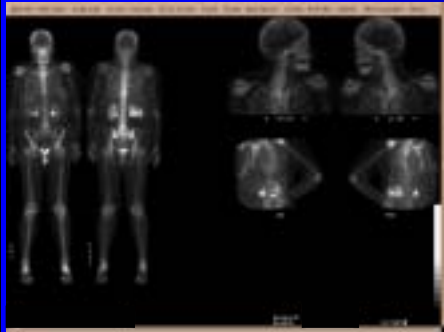


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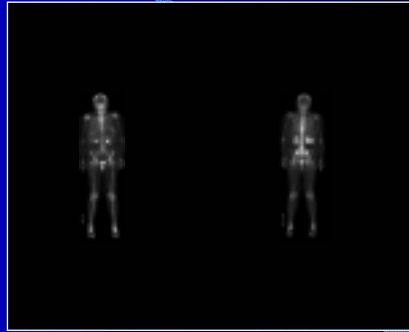
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NM Image



NM



PACS



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NM – The Solution

- New Profile
 - for Users to request and Vendors to claim
- No New Actors or Transactions
 - Additional requirements on existing actors and transactions
 - Two New Options
- New Informative Text in Vol. 1
 - Clarifications of NM Workflow mapping to SWF
 - Explanation of NM Data
 - Explanations of NM Clinical Display concepts
- New Normative Text in Vol. 2
 - <See Following Slides>
- Connectathon to help test and confirm



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NM Image Profile

- **Acquisition Modalities** (*Modality Images Stored [8]*)
 - Create NM objects as specified (additional attribute & vector handling)
 - Include specific codes in Cardiac studies
- **Evidence Creators** (*Creator Images Stored [18]*)
 - Create NM objects as specified (additional attribute & vector handling)
 - Include specific codes in Cardiac studies
- **Image Manager/Archives**
 - Store/Retrieve NM & Secondary Capture (SC & MFSC) Objects
- **Image Displays** (*Retrieve Images [16]*)
 - Display NM and Secondary Capture (SC & MFSC) Images
 - Support specified display capabilities

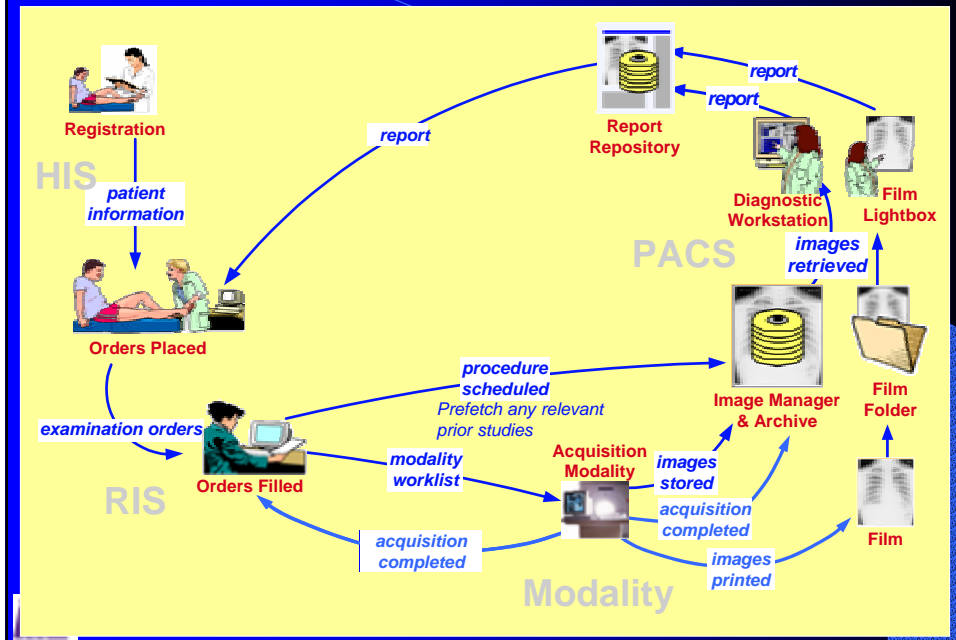


Notification Options for Scheduled Workflow

Feedback Enhancements



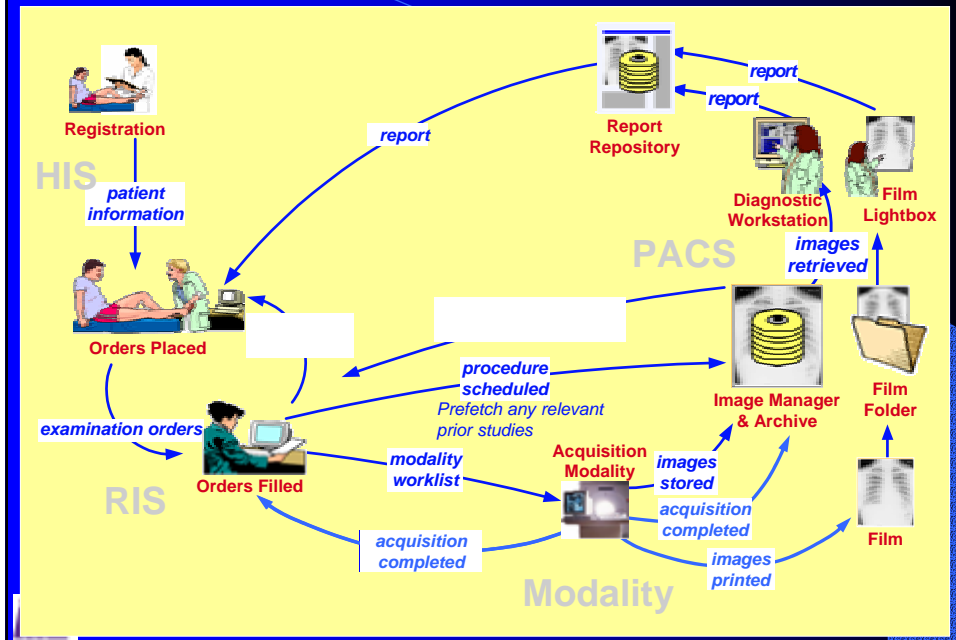
Scheduled Workflow Profile



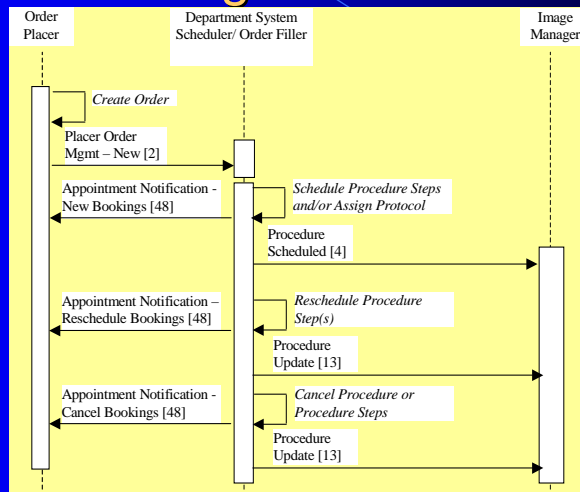
NEW SWF Options

- **Departmental Appointment Notification**
 - Gives the Department System Scheduler an option to notify Order Placer of date and time of scheduled examinations.
- **Instance Availability Notification**
 - Gives the Image Manager an option to notify Order Filler and other workflow management actors of availability status of evidence objects.

Scheduled Workflow Profile



Departmental Appointment Booking Use Case



SIU Message Structure

SIU^S12, SIU^S13, SIU^S15	Schedule Information Unsolicited	Chapter in HL7 V2.4/2.5
MSH	Message Header	2
SCH	Schedule Activity Information	10
{ RGS	Resource Group Segment	10
{ AIS	Appt Information – Service	10
[{ NTE }]	Notes and Comments	2
}		
}		



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Instance Availability Notification Option



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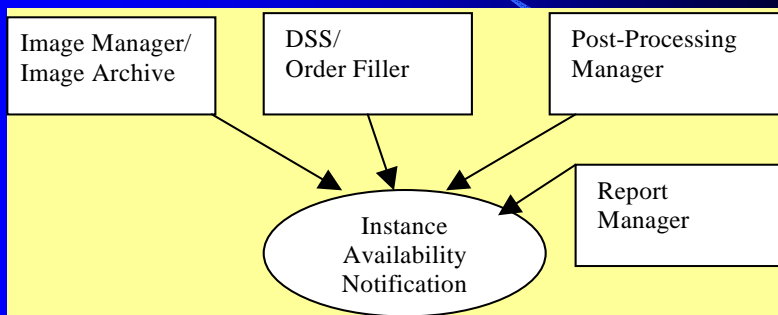
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IHE-Jベンダワークショップ

Use Cases

- This option only addresses the use case when MPPS referencing evidence objects has been received by Image Manager.
- Image Manager generates Instance Availability Notification upon receiving of all objects referenced in particular MPPS.
- Cross-referencing of MPPS in IAN may compensate for MPPS missed by OF

Instance Availability Notification Transaction



Interaction Diagram

