

GE Healthcare

Diagnostic Image Repository

A GE Perspective

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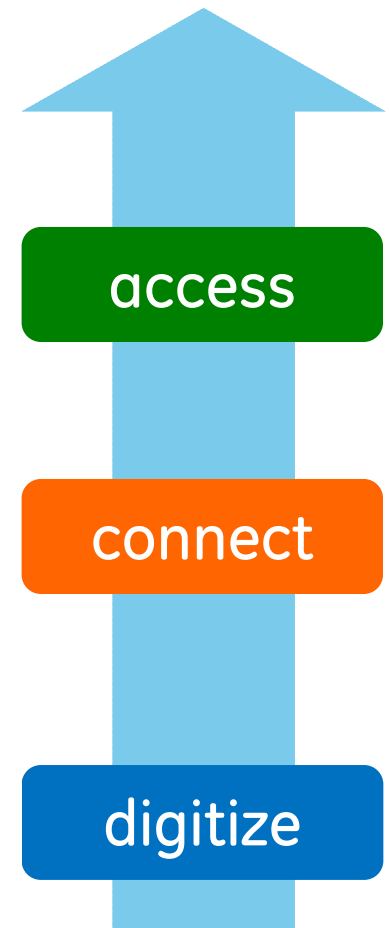
imagination at work



DI-r Defined...

A central image and report repository which provides:

- Long term archive for multi vendor PACS systems deployed within a region
- Provide a Longitudinal Patient Record for an entire region
- Region wide sharing of DI results (images and reports)



DI-r Defined. . .

Long Term Archive for PACS within the Region

- Infrastructure Build
- Redundancy
- Scalability
- Maintain organizational identity

Access to Longitudinal Patient Record

- Single patient jacket
- Clinically usable access: foreign images
- Clinically usable access: foreign reports



Multiple Options for Different Scenarios



Viewing Foreign Images and Reports

Options:

- 1) Use local PACS viewer with integration to launch DI-r Viewer for foreign priors
- 2) Use local PACS viewer for current & foreign prior exams
 - a) Local current exams & local/foreign priors
 - b) Foreign current & local/foreign priors
- 3) Use DI-r diagnostic viewer/reader for current & prior foreign exams

Local PACS Scenario

Reading local current exam
+
Local Priors

Option:

Local PACS



Local Exam Reading Scenario with Foreign Priors

Reading local current exam
+
Foreign Priors
(images & reports)

Options:

- 1) Local PACS integration to a DI-r Viewer
- 2) Local PACS with foreign prior exam & report management



Foreign Exam Reading

Primary Reading Foreign Exams

Option:

- 1) Local PACS with foreign exam reading management
- 2) Direct read from the DI-r



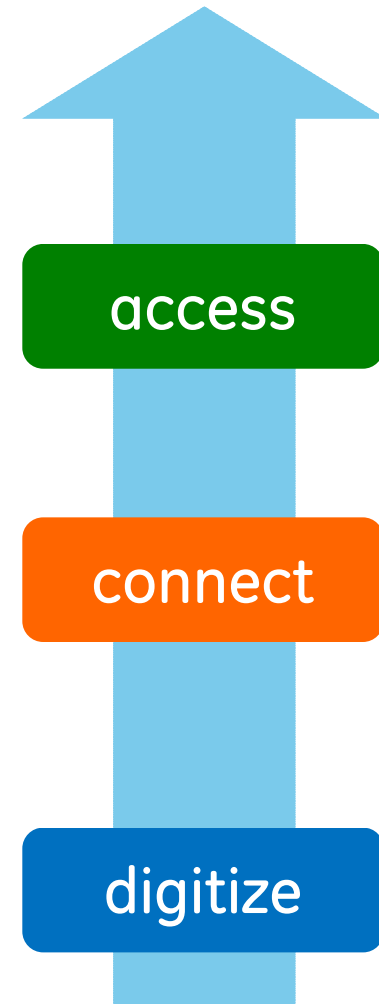
GE DI-r ... a phased approach

Phase 1:

- Build the infrastructure for a Shared Long Term Archive:
 - Redundancy
 - Scalability
- Provide access to a Longitudinal Patient Record
 - Access to foreign exams and reports

Phase 2:

- Seamless Sharing



GE DI-r ... phase two

Seamless Sharing:

The expectation is the end user will be able to use their local PACS workstation/viewer and its tool set to view images and reports acquired externally to their local PACS

Also a challenge...



Foreign Exam Ingestion – a challenge shared among DI-r, PACS, site policies

Technology:

PACS vendors have different architectures, requirements for ingesting foreign exams. These requirements impact functions for exam update, storage, hanging, auditing, etc.

Standards:

Current standards such XDS, address the transport between systems. There are no standards to address how foreign exams are to be handled within a PACS

Policies

Defined policies may be required to address issues such as procedure terminology standards, alerting of exam changes, rearchiving, etc.

Foreign Exam Ingestion into Local PACS

Benefits:

- Provides opportunity for seamless reading environment
- Utilize tools from local PACS on foreign exams

Challenges:

- Ensure PACS systems in a region can ingest foreign exams
- Lack of standardization in procedures, body part, etc., make it difficult have foreign exams automatically hang
- PACS typically expect a RIS order with foreign images
- Reports – need a common standard to distribute reports and communicate updates (i.e. addendums)

Summary

There are different options to achieve longitudinal patient record and sharing of images/reports

1. Native PACS + Foreign Exam/Report viewer
2. Foreign exam ingestion into Native PACS + Foreign Report Viewer
3. Native PACS for local exams + Separate Reader/Viewer for for exams/priors.

Standards such as XDS can be an enabler for the above or it can be accomplished via proprietary methods.



Thank You