

# Data Access for Clinical Decision Support

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# Challenges in a Enterprise Workflow

- Limitations in Access to All Data
- Quality of Data
- Time Consumption
- Risk Not to Retrieve Critical or Complete Patient Data
- Clinical Decision Support Depends on All
- Faster Systems & More Automated Systems Required
- "Open up" Borders and Vertical Silos
- Need for updated standard protocols (IHE, HL-7, DICOM)
- Need for Work Flow Engines
- Need for Education & Knowledge Systems

# Trends and constraints in clinical workflow

## Mobility

*Instant access to patient data from anywhere in or outside the hospital, without waiting for data to be transferred becomes inevitable in order to improve patient treatment and efficiency – and lower costs*

TIME

## Clinical Specialization

*Specialists need to treat more and more patients across hospitals and geographies, which leaves an outspoken need for new technology to access patient data AND for that data to be effortlessly shared.*

TIME

## Image detail and size

*New modalities produce an exponential amount of data that requires new technology also to be accessed from outside radiology.*

TIME

## Data Consolidation

*All hospitals need to reduce the number of servers and archives in order to provide a common patient history. **Vendor Neutral Archives (VNA)** will play an important role and all software in healthcare will have to comply over time.*

TIME

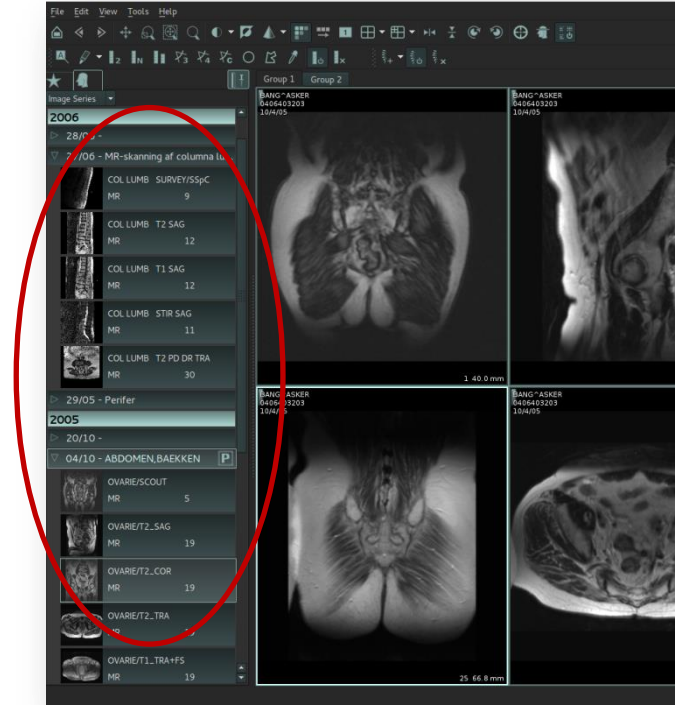


# Strategic Vision:

- Provide instant access to consolidated patient images, multimedia files and reports across hospitals, regions and countries without compromising image quality or functionality
- All without paying any attention to underlying technologies and locations

# Patient Centric View

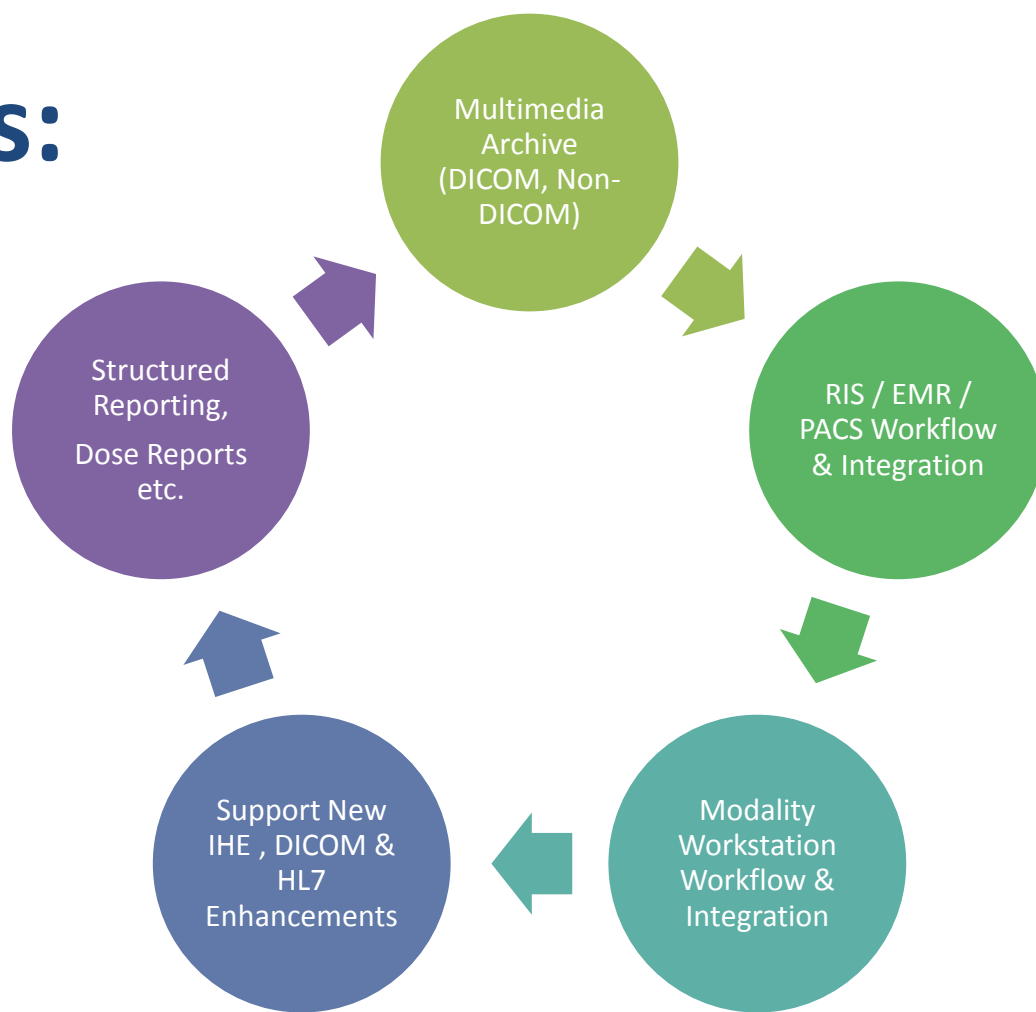
- Access to DICOM images
- Access to reports
- Access non-DICOM documents:  
pdf reports, jpg & png images,  
HL7 CDA Documents,  
MPEG/AVI video etc.



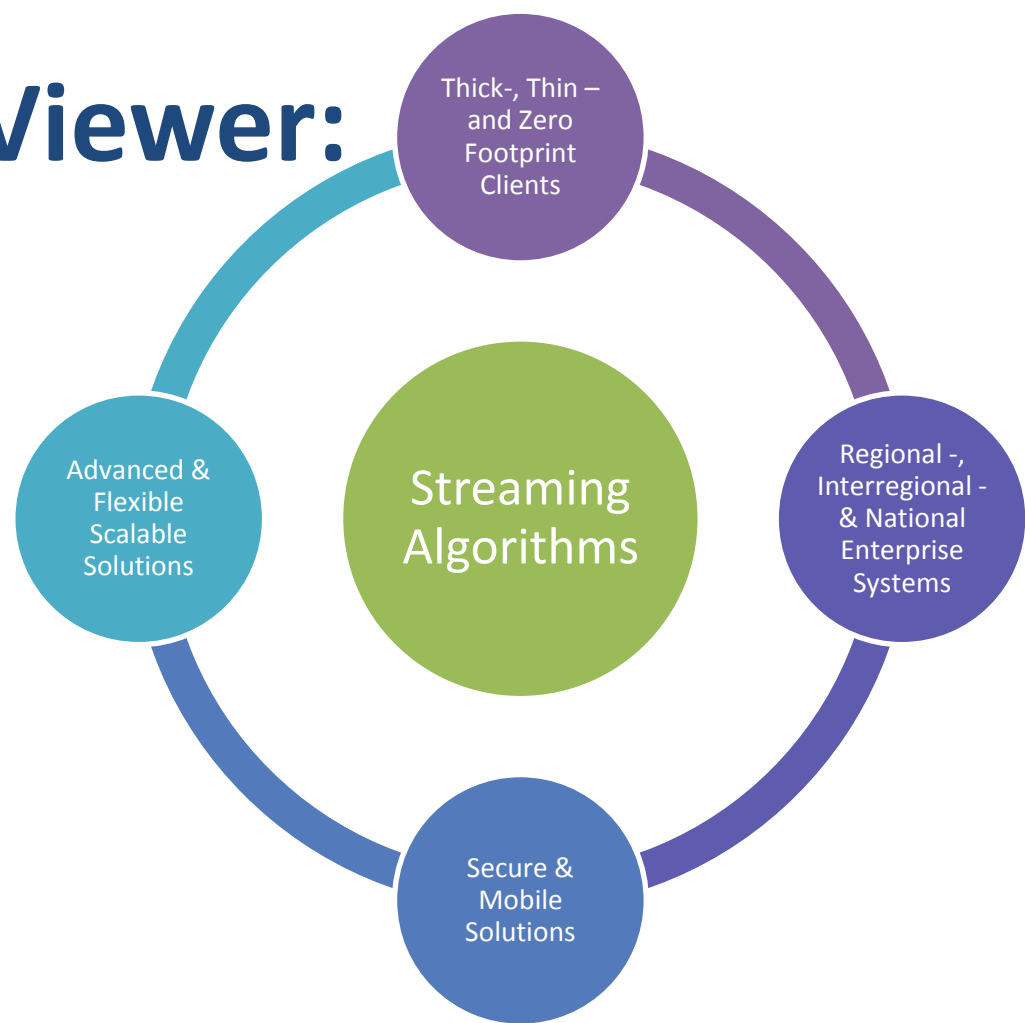
# A Trauma Case



# Focus Areas:



# Enterprise Viewer: Backbone





# Adaptive Streaming

- Fast Access to Patient Image Data:

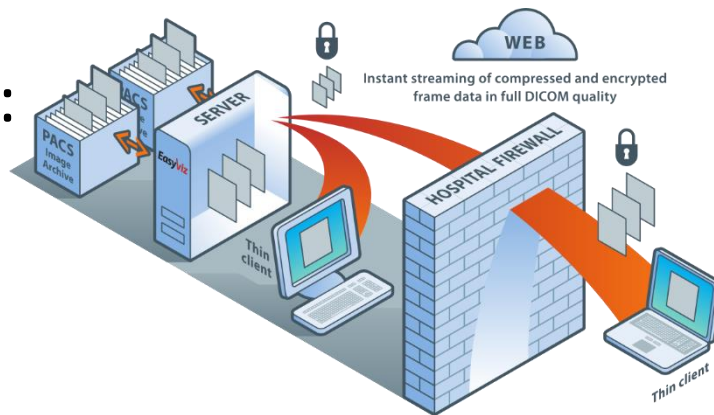
- Works well on low bandwidth

- Reliable Access to Patient Data:

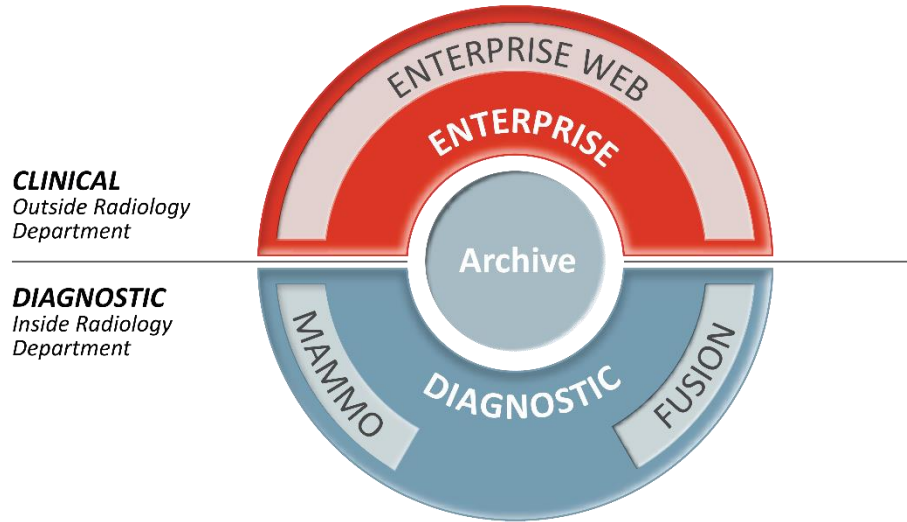
- Built-in TLS/SSL encryption
- No data stored on the client computer

- Supports Nomadic Workflows:

- Computers in hospital environments are not personal
- Technology inherently supports: Application roaming and session sharing



# EasyViz Product Overview



# EasyViz Enterprise Web

- No Deployment:
  - Zero-footprint makes the product ideal for external IT-environments such as referring physicians
  - No deployment enables BOYD
- Access Anywhere:
  - Built-in encryption enables access anywhere through a standard web browser
- OS Agnostic:
  - Access to the functionality of EasyViz Enterprise on Mac OS X





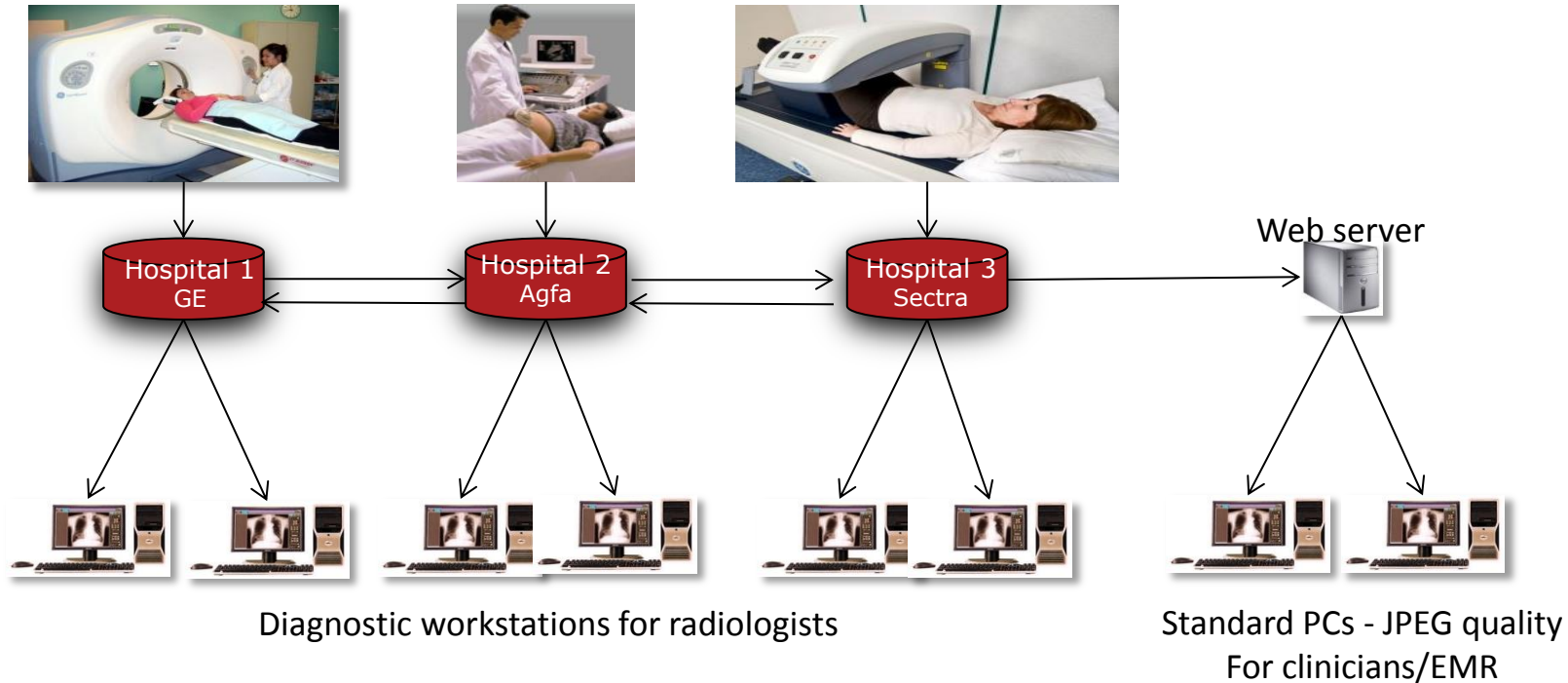
# Complete

Copenhagen >> Oslo  
(Cruising Altitude : 7.200 m)

# Review Mobility



# Traditional PACS Setup



**Physical transfers => MULTIPLE copies of data and limited image sharing**

# “A New Age of Informatics”

PACS face a different set of problems. They're "monolithic," said Dreyer – having evinced very slow innovation. But an "electronic version of film" is not enough for the new age of connected health, said Dreyer. PACS need to "better exploit the new paradigm," and follow the lead, for example, of models such as Apple's app store.

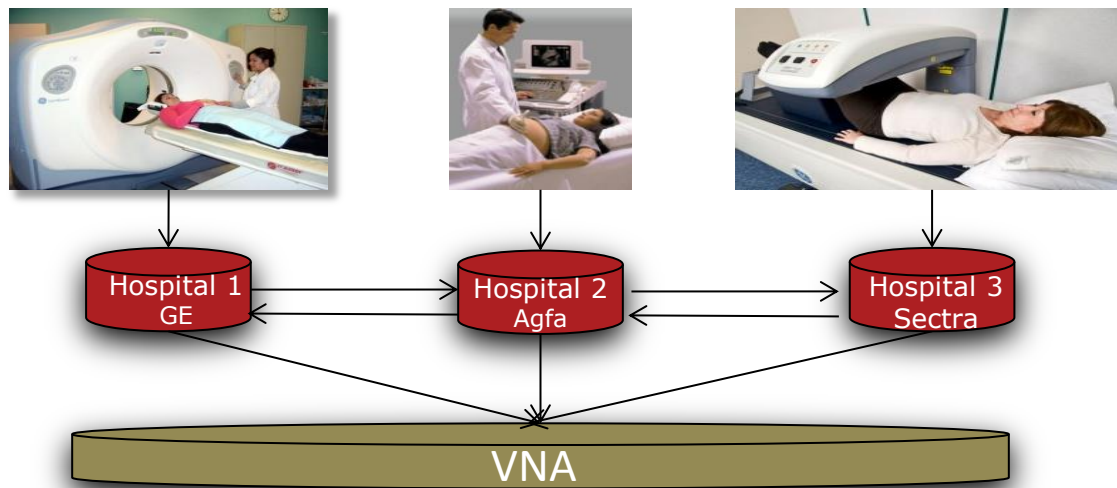
The future, said Dreyer, will see more of a move toward vendor-neutral archives (VNA) and cloud storage. "Image management will need to be overhauled."



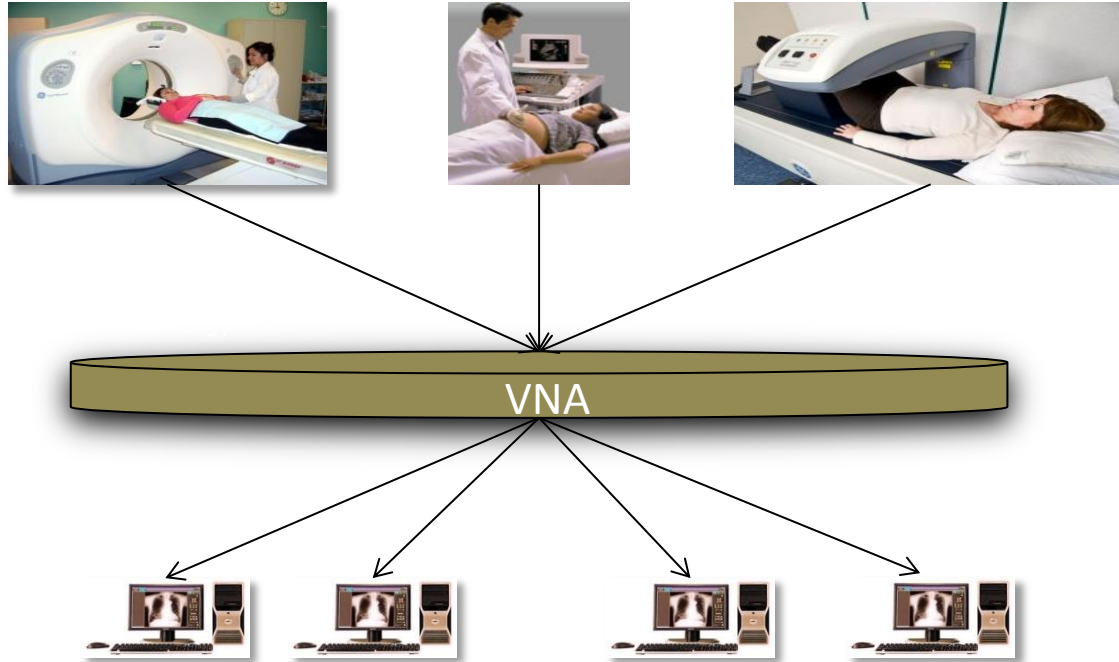
Keith Dreyer, DO, vice chairman of radiology computing and information sciences at Massachusetts General Hospital



# Introducing Vendor Neutral Archives (VNA)



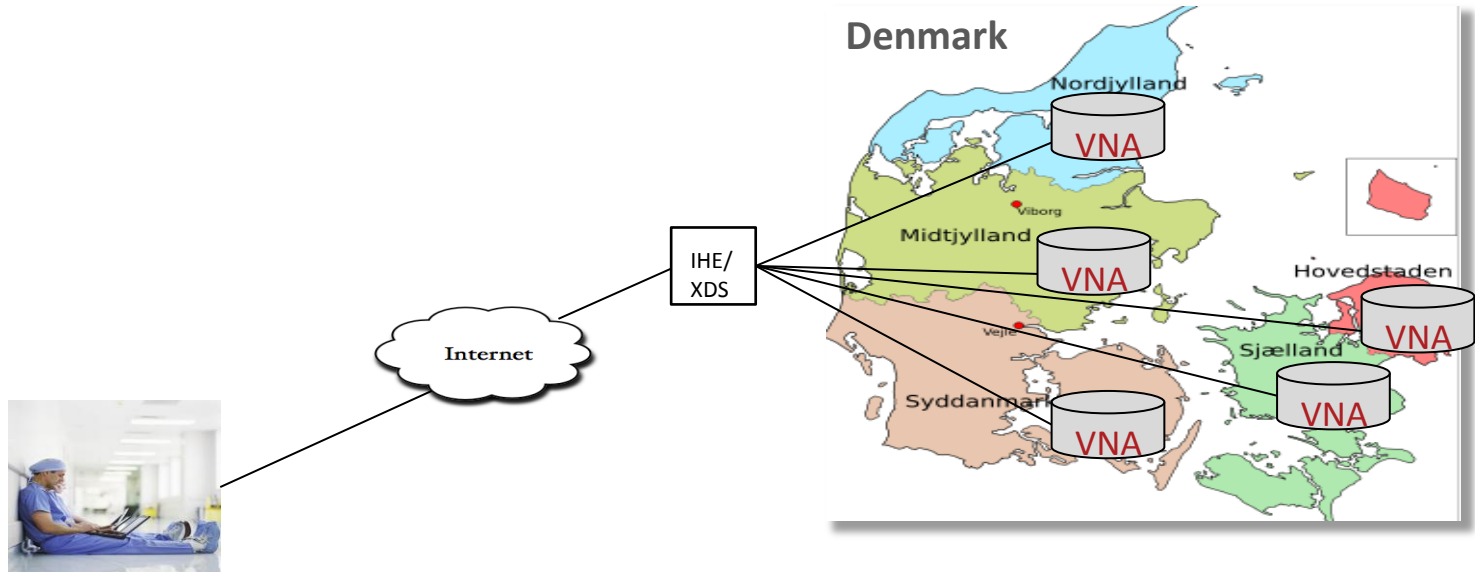
# The Vision is in Production Today



EasyViz for primary reading and basic EMR viewing

*A solid business case for the Danish national health system – payback time less than 1 year*

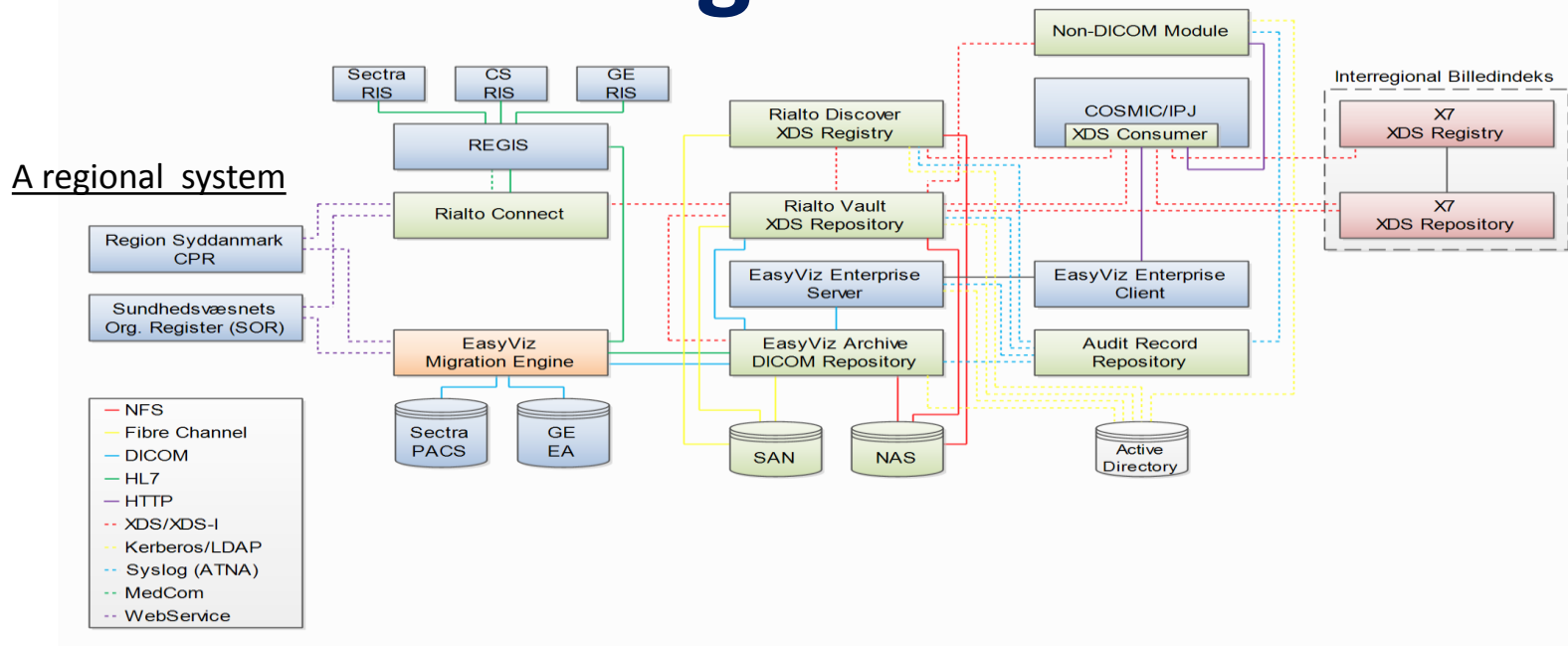
# Game Changing Project: Nation Wide Image Access





*A solid business case for the Danish national health system – payback time less than 1 year*

# Game Changing Project: Nation Wide Image Access



# Pilot Project: Iceland National Image & Report Access

