



## Integrating the Healthcare Enterprise Contribution to Standards Implementation

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## Presentation Overview

- What is IHE
- What is the problem
- How is it done
- Process
- Example IHE Radiology Profile
- Profiles 2003, 2004, ?2005
- The IHE EHR-LR (?stage 1 health connect)
- Goal IHE and what it is not
- IHE for Australia????



## What is IHE?

- A joint initiative to improve systems integration
  - Process for coordinated adoption of standards
  - Clinicians define needs
  - Vendors develop solutions—Technical Framework
  - HIMSS/RSNA etc. supervise documentation, testing and demonstration/promotion



## What is the problem

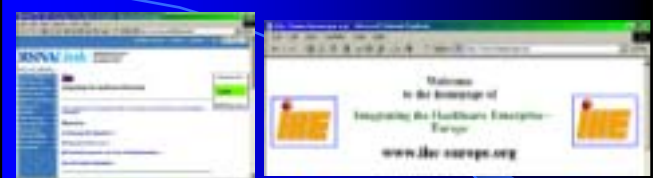
- Intractable inter-operability problems
- Multiple Standards - building blocks
- Consolidating market requirements
- Solutions require a systems approach
- Industry to adopt standards

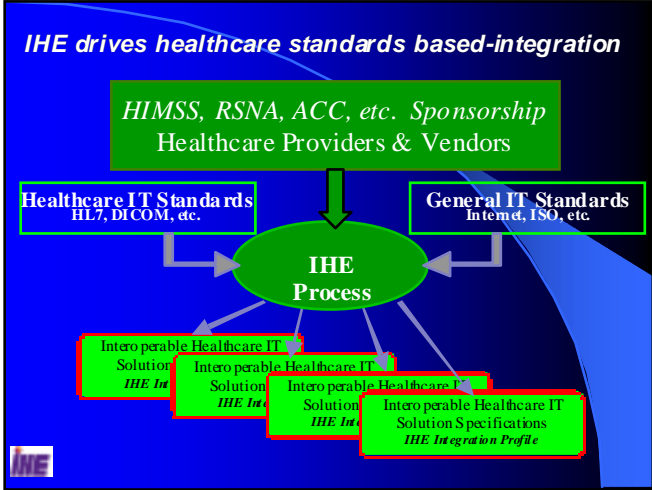
One solution.....



## How is it done

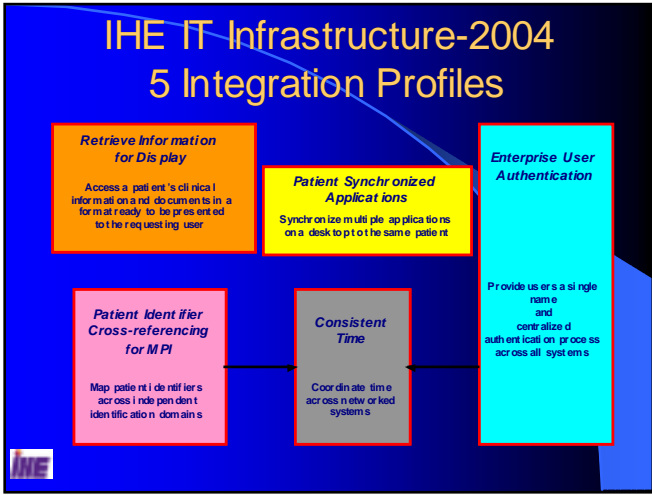
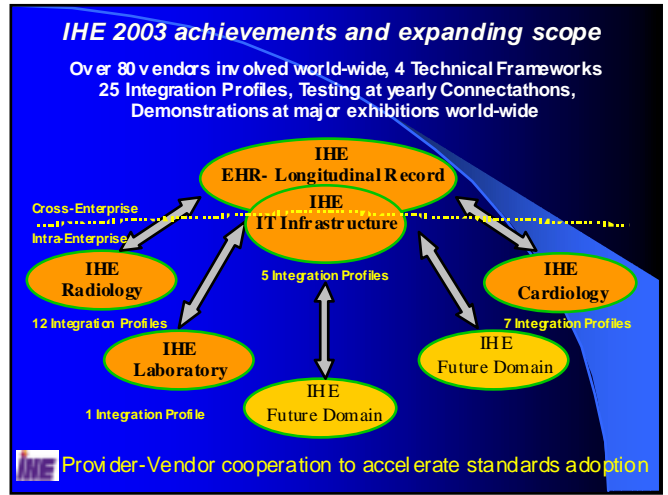
- Real organisation - virtual structure
  - sponsored by user organisations
  - membership - vendors and users (clients)
- Process (annual cycle)
  - problem definition (Users)
  - construction of integration solutions (Vendors)
  - testing & conformance - Connectathon (Sponsor)
  - demonstrations - major events eg HIMSS
  - use of profiles in RFTs.



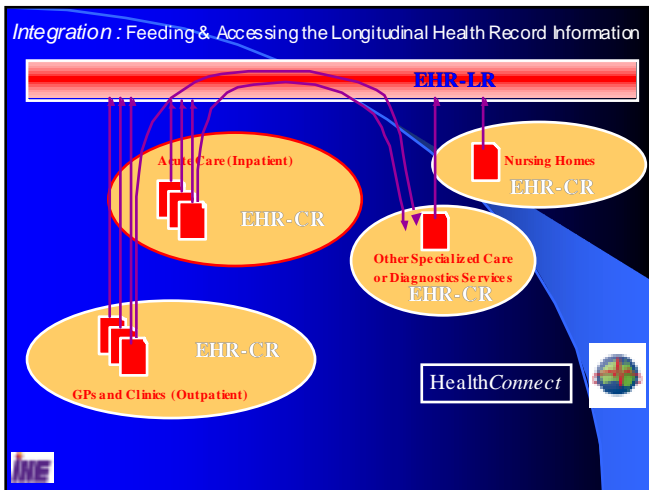
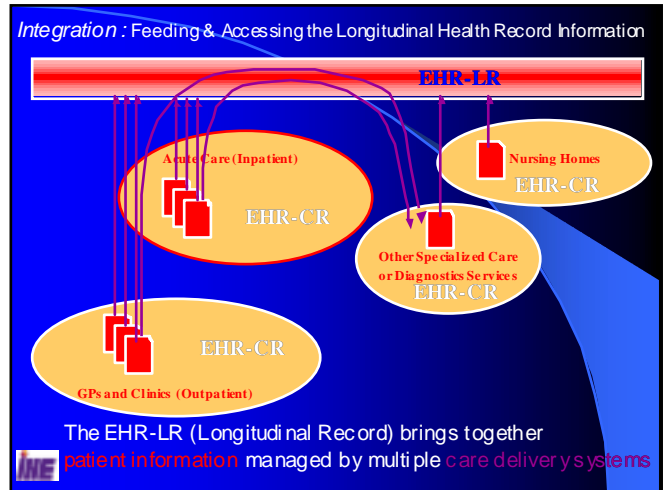
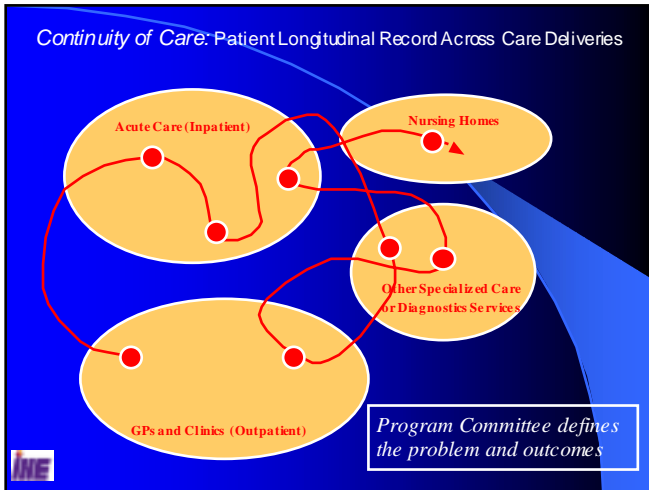


- ### IHE Process
- Users and vendors work together to identify and design solutions for integration problems
  - Intensive process with **annual cycles**:
    - Identify key healthcare workflows and integration problems
    - Research & select standards to specify a solution
    - Write, review and publish IHE Technical Framework
    - Perform cross-testing at “Connectathon”
    - Demonstrations at trades hows (HIMSS/RSNA...)

- ### IHE Radiology Profile
- 3 components
    - Picture Archive Systems (PACS)
    - Radiol. Information Systems (RIS)
    - Image capture systems (eg CT, MRI)
  - Independent systems - tower of babel
  - Standardisation of workflow eg.
    - common demographics
    - imaging schedule (RIS-CT scanner)
    - image transfer (Scanner-PACS)
    - confirmation of transfer (PACS-Scanner)



- ### IHE IT Infrastructure – Plan for 2004-2005
- **IT Infrastructure Development Plan:**
    - IHE IT Planning Committee decision: mid-February
    - Issue Public Comment version: June 2004
    - Public Comment Due: July 2004
    - Issue Trial Implementation version: August 2004
    - IHE Connectathon: January 2005
    - HIMSS Demo: February 2005
  - Profiles discussed this week are:
    - EHR-Cross-Enterprise Document Sharing
    - Patient Demographics Query
    - Audit Trail and Node Authentication
    - White Page Directory
    - Code Sets Distribution



- The IHE Technical Committee- Work out Detail - industry experts**
- Identify the transactions required to integrate a specific information/business flow between several information systems/devices
  - For each transaction, select a single standard (e.g. HL7 messages, RFC) for use in implementing the transaction
  - Specify in detail the use of the standard in implementing the transaction

- EHR - LR Longitudinal Record**
- Technical committee - 4 days in January
  - 9 experts - senior software engineers/systems architects eg GE, Siemens, Sponsor representative, fly on wall (me)
  - Define the interactions and requirements
  - Review all existing standards used in health (messaging, security, vocabulary)
  - Draft profile - emergent

