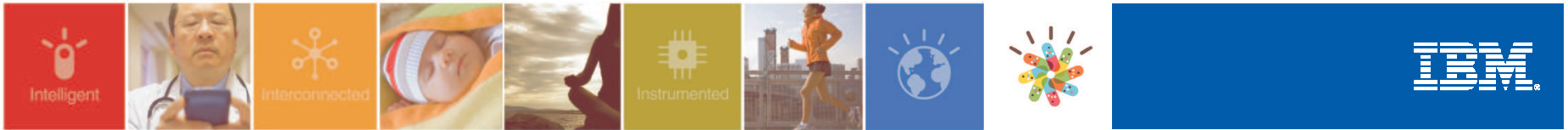




Continua Health Alliance: Personal Telehealth SOA in Healthcare Conference

Rich Rogers - International Business Machines

Randy Carroll - Wintergreen Technology Group, LLC



Importance of a New Paradigm for Home Health Care

■ Economics

- In 2006 in the US, the cost of healthcare rose to \$2.1 trillion dollars or 16% of GDP
- The medical care costs of people with chronic diseases account for more than 75% of the nation's medical care costs
 - Among Americans aged 65 and older that rises to 95%.

■ Demographics

- On average, life expectancy across OECD countries reached 78.3 years in 2004, up from 68.5 in 1960.
- By 2030 the proportion of the US population aged 65 and older will double to about 71 million older adults, or one in five

■ Key Challenge

- Providing Quality care for a growing elderly population with an increased proportion of chronic disease with limited resources



Continua
HEALTH ALLIANCE

Mission

To establish a system of interoperable personal telehealth solutions that fosters independence and empowers people and organizations to better manage health and wellness.



Strong Industry Participation

Open
International



GE Healthcare





Objectives

- Developing design guidelines that will enable vendors to build interoperable sensors, home networks, telehealth platforms, and health and wellness services.
- Establishing a product certification program with a consumer-recognizable logo signifying the promise of interoperability across certified products.
- Collaborating with government regulatory agencies to provide methods for safe and effective management of diverse vendor solutions.
- Working with leaders in the health care industries to develop new ways to address the costs of providing personal telehealth systems.



Continua is a non-profit open industry alliance

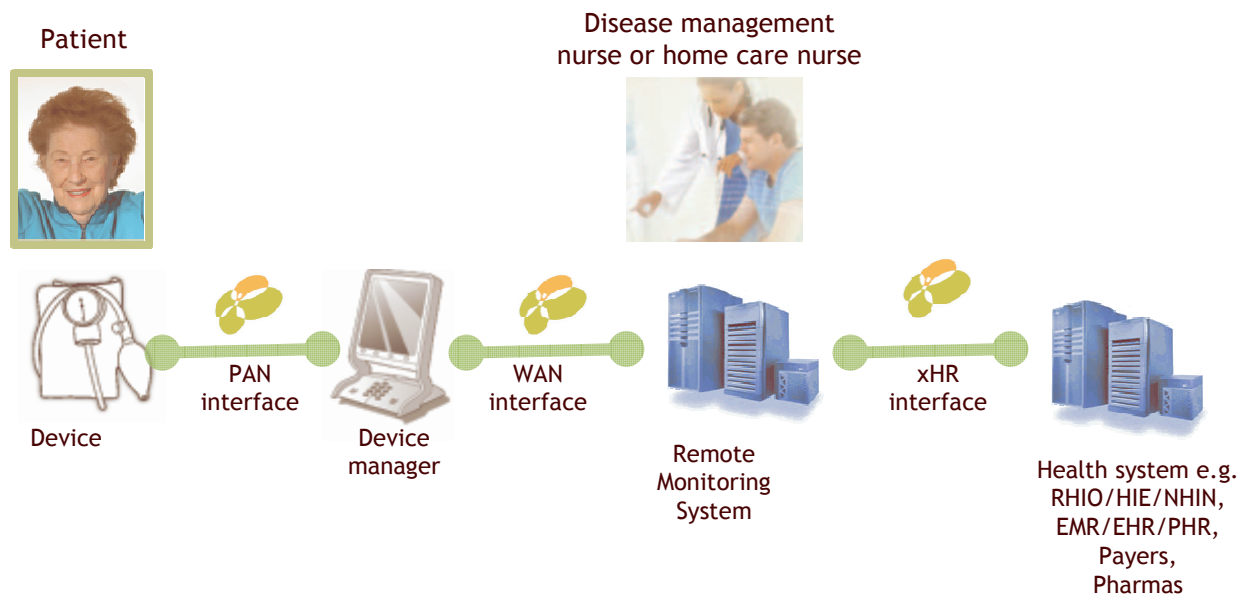
- Over 190 member firms
- Over 1,600 members participating in the various working groups

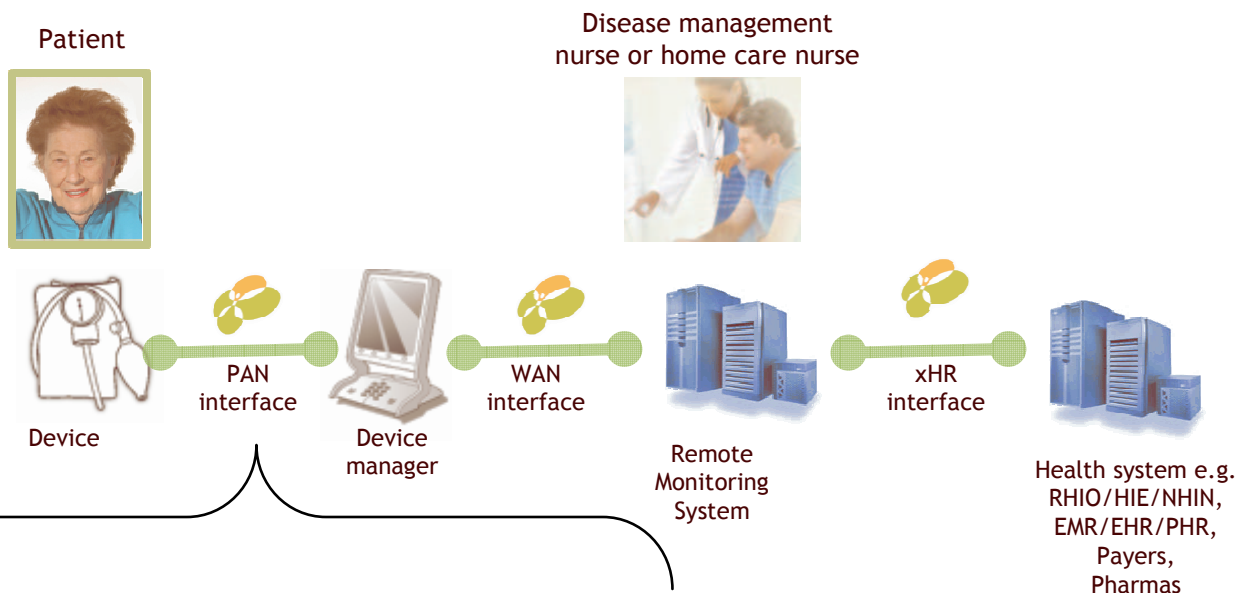


Continua is focused on 3 areas of personal healthcare

- **Health & Wellness**
 - Maintaining or raising overall fitness
 - Monitor general well being (ex. Weight, blood pressure, glucose, activity level)
- **Disease Management**
 - Improved detection and better-coordinated care
 - Monitor chronic conditions (ex. diabetes, COPD, CHF, hypertension)
- **Aging Independently**
 - Help assure the health, safety, and viability of elderly life
 - Monitor the home and activity within (ex. PERS sensor, utility sensors, activity sensors)

All domains share a common infrastructure that enables personal telehealth





- ISO/IEEE 11073-10404 = Pulse Oximeter
- ISO/IEEE 11073-10406 = Pulse / Heart Rate
- ISO/IEEE 11073-10407 = Blood Pressure
- ISO/IEEE 11073-10408 = Thermometer
- ISO/IEEE 11073-10415 = Weighing Scale
- ISO/IEEE 11073-10417 = Glucose
- ISO/IEEE 11073-10441 = Cardiovascular Fitness Monitor
- ISO/IEEE 11073-10442 = Strength Fitness Equipment
- ISO/IEEE 11073-10471 = Independent Living Activity
- ISO/IEEE 11073-10472 = Medication Monitor

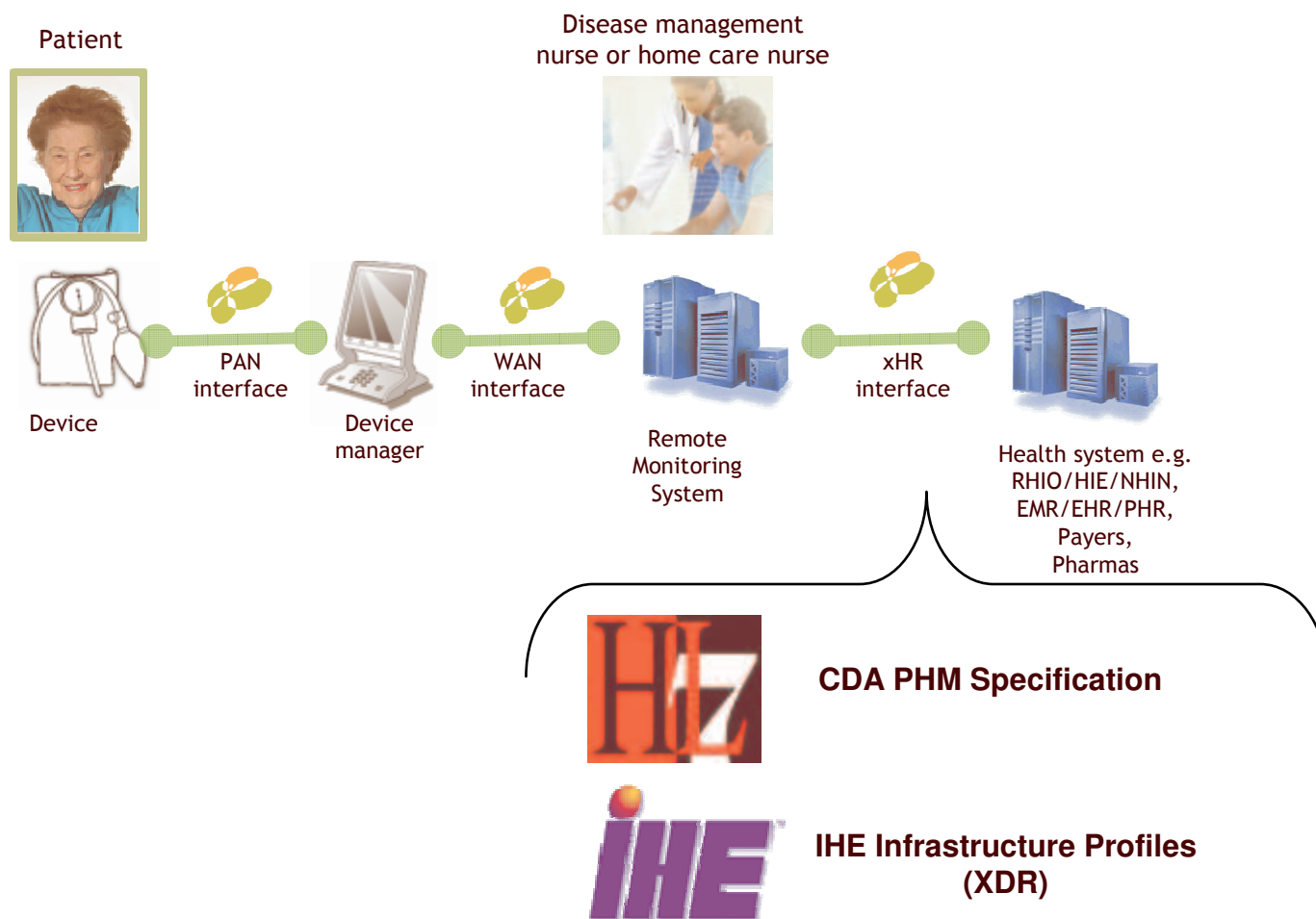


**Bluetooth Medical
Device Profile Specification**

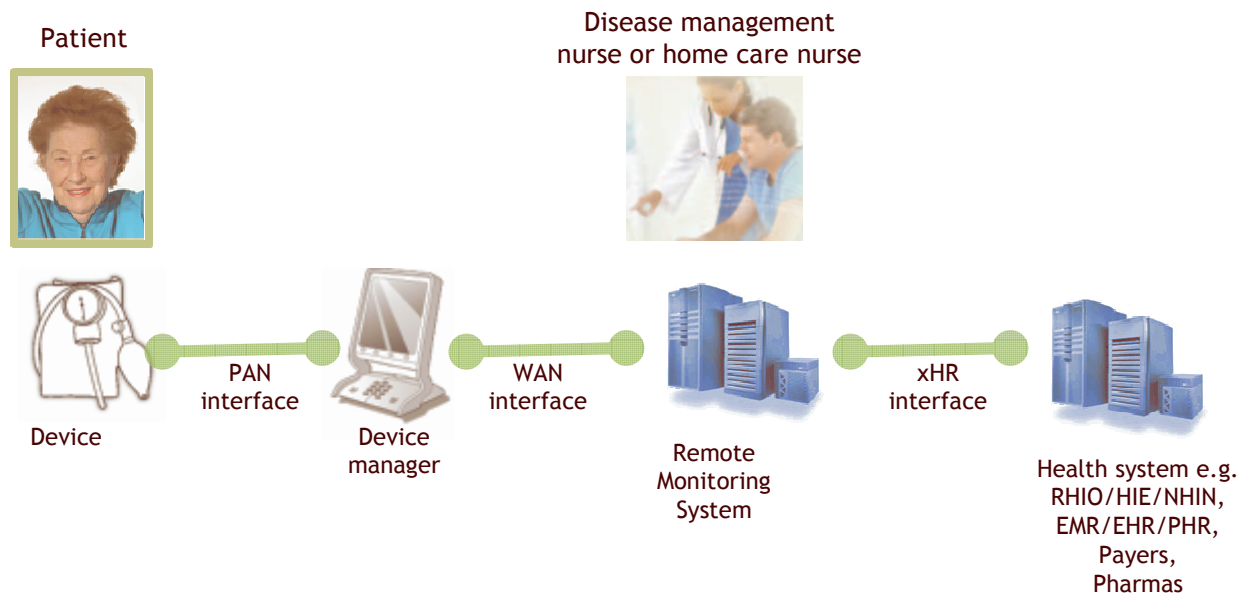


**USB Personal Healthcare
Device Class Specification**

Continua Uses Standards to Define Interfaces



Service Oriented Architecture & Personalized Telehealth

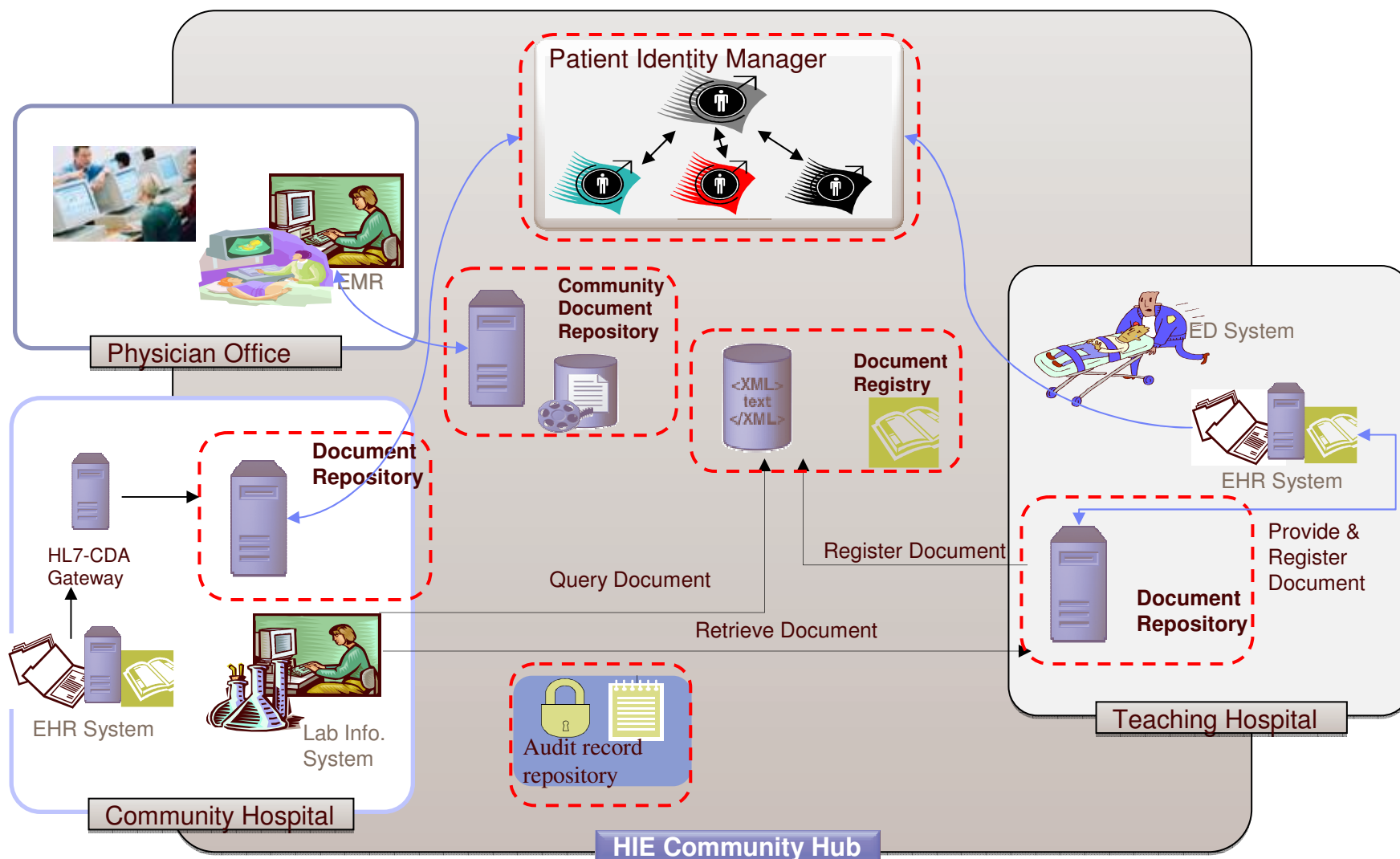


Stepstone project at Open Health Tools provides software assets and reference implementation for personalized telehealth

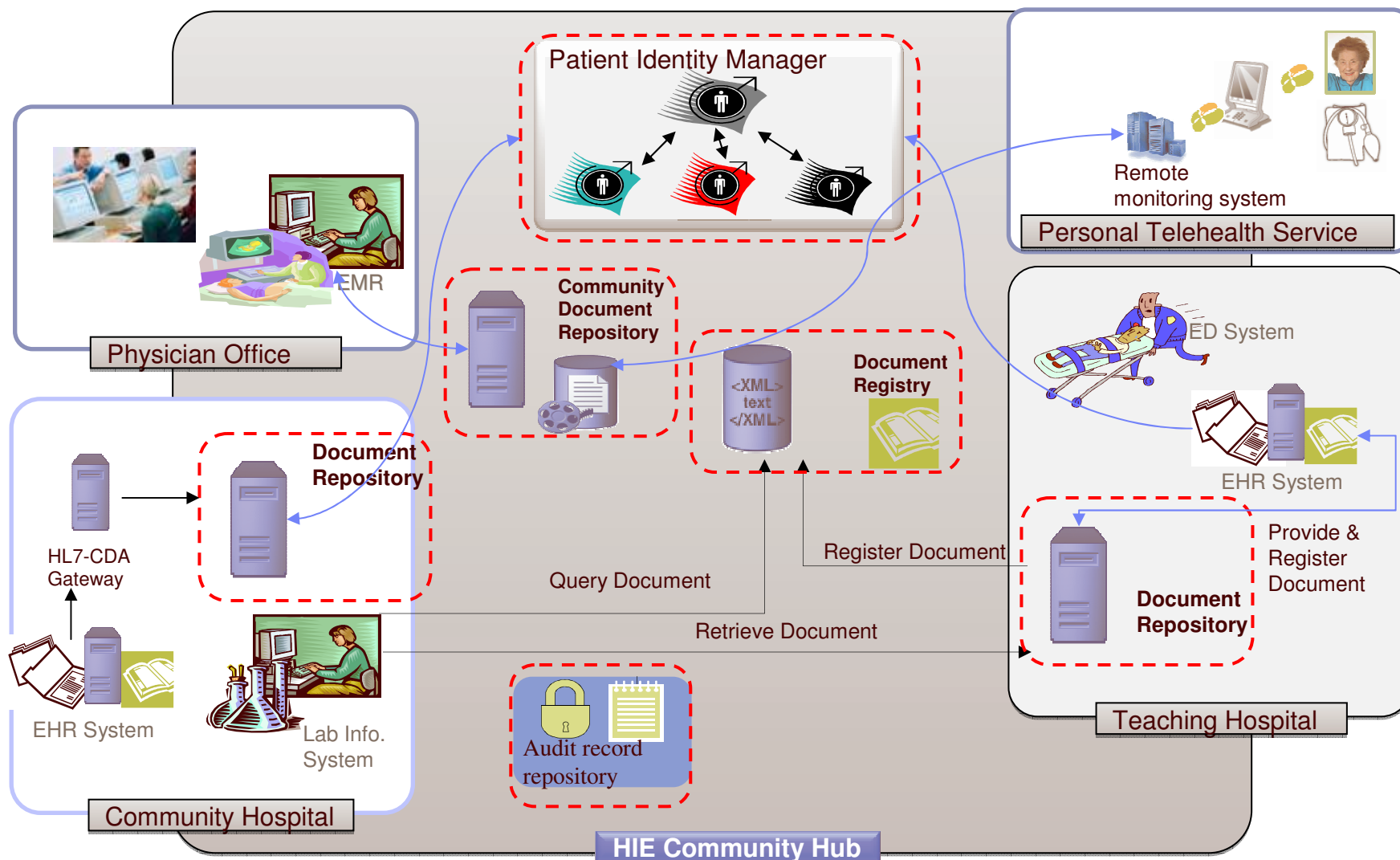
- Uses Eclipse SODA project – service oriented device architecture
- <https://stepstone.projects.openhealthtools.org/>

Uses IHE profiles project for HIE / NHIN / RHIO integration

“Generic” Document-based HIE

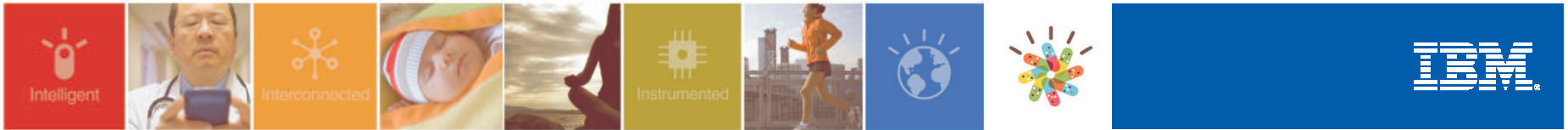


“Generic” Document-based HIE + Personalized Telehealth





- Partners Symposium on Connected Health
- Continua Spring Summit / TicSalut
- HIMSS '09 IHE Interoperability Showcase
- IHE Europe Connectathon Workshop



Final Thoughts

- Economic and demographic trends continue to strain our health systems and economies
- Needs of the aging and chronic conditioned require new models for care, collaboration, channels for access and care settings
- Continua provides a standard way for healthcare providers to exploit new sources of data from medical devices and sensors
- Service oriented approach provides flexibility and scalability for E2E solutions
- Demonstrations integrating products from multiple Continua member companies have been delivered at recent healthcare industry events

- **Web Site:** <http://continuaalliance.org/>
- **Mission:** <http://continuaalliance.org/about-the-alliance/mission-and-objectives.html>
- **Overview:** http://continuaalliance.org/static/cms_workspace/Continua_Overview_Presentation_v10.3.pdf
- **Vision Video:** <http://continuaalliance.org/connected-health-vision/vision.html>
- **Use Cases:** http://continuaalliance.org/static/binary/cms_workspace/5.04-CH1-CC-401-Continua_flyers.pdf
- **Members:** <http://continuaalliance.org/about-the-alliance/member-companies.html>



Thank You

Questions?

Rich Rogers
Healthcare Standards
IBM Software Group

rrogers@us.ibm.com

Randy Carroll

Wintergreen Technologies

rwcarroll@wintergreentechnologygroup.com