



Enabling Meaningful Collaboration throughout the Healthcare Continuum

www.tolvenhealth.com

www.tolven.org

<http://wikiHIT.org>

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Agenda

- Introduction
- Paradigm shift in healthcare informatics
- Open Source
- Example use-cases
- Summary
- Questions and Answer

Paradigm Shift in Demands

- **Affordable, Scalable, Standards-Based Healthcare Solutions**
 - Electronic Medical Records proven to reduce costs and patient risk
 - Integration with existing healthcare solutions
 - Transportable healthcare records
 - Consumer engagement
- **Consumer Access to Personal Healthcare Records**
 - Individuals increasingly engaged in their own healthcare management
 - 66% of US consumers surveyed prefer electronic access (Markle 2006)
 - 70% want access to check for errors (Markle 2006)
- **Open Source**
 - National agencies requiring open source solutions (US and elsewhere)
 - FLOSS – services 4% of EU GDP by 2010 (UNU-Merit 2006)

Realizing the Vision

- **Open Source, Collaborative Platform for Healthcare**

- Enables meaningful collaboration throughout the healthcare continuum
- A highly adaptable platform for secure health data management
- Designed to support many healthcare environments
- Reference implementation of health and technology standards

- **Tolven End User Solutions**

- Example applications for consumers and physicians
- Framework for further rapid application development
 - Web-browser interface
 - Mobile and static devices

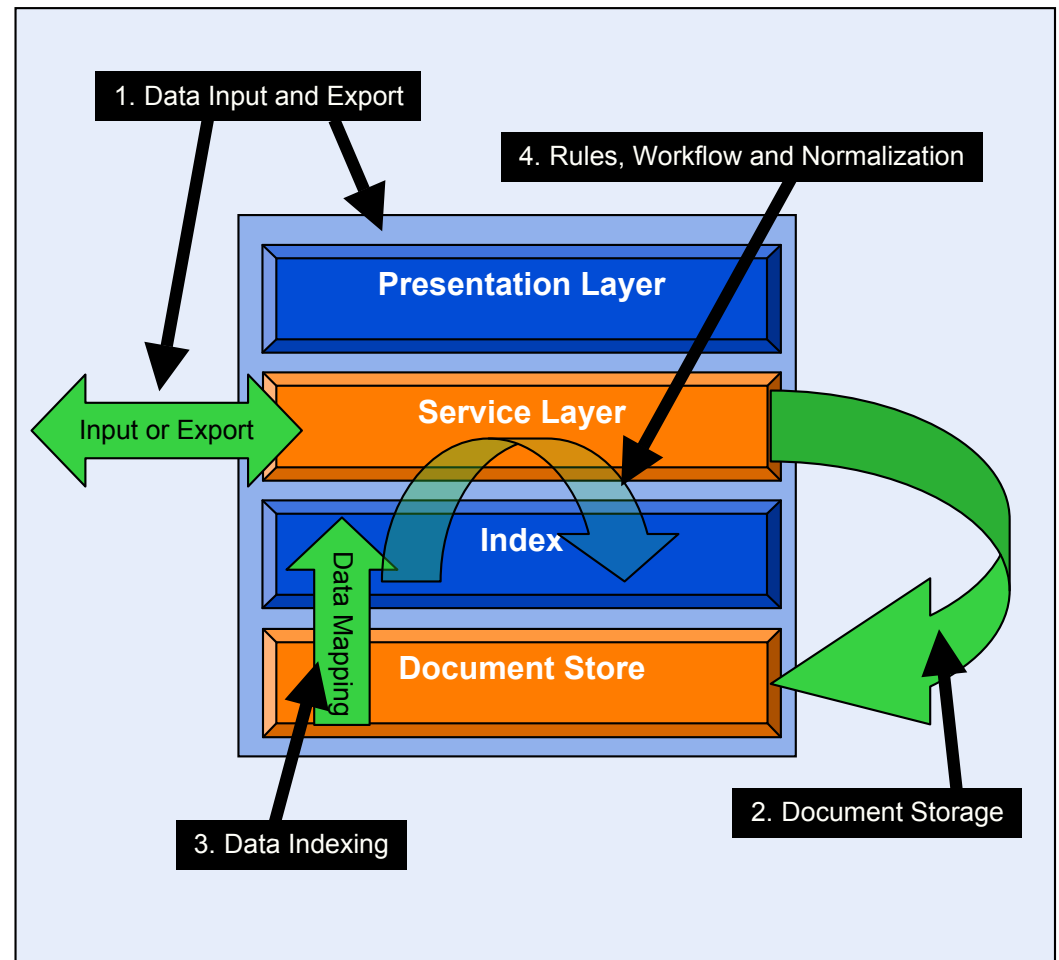


- **Tolven Extensions**

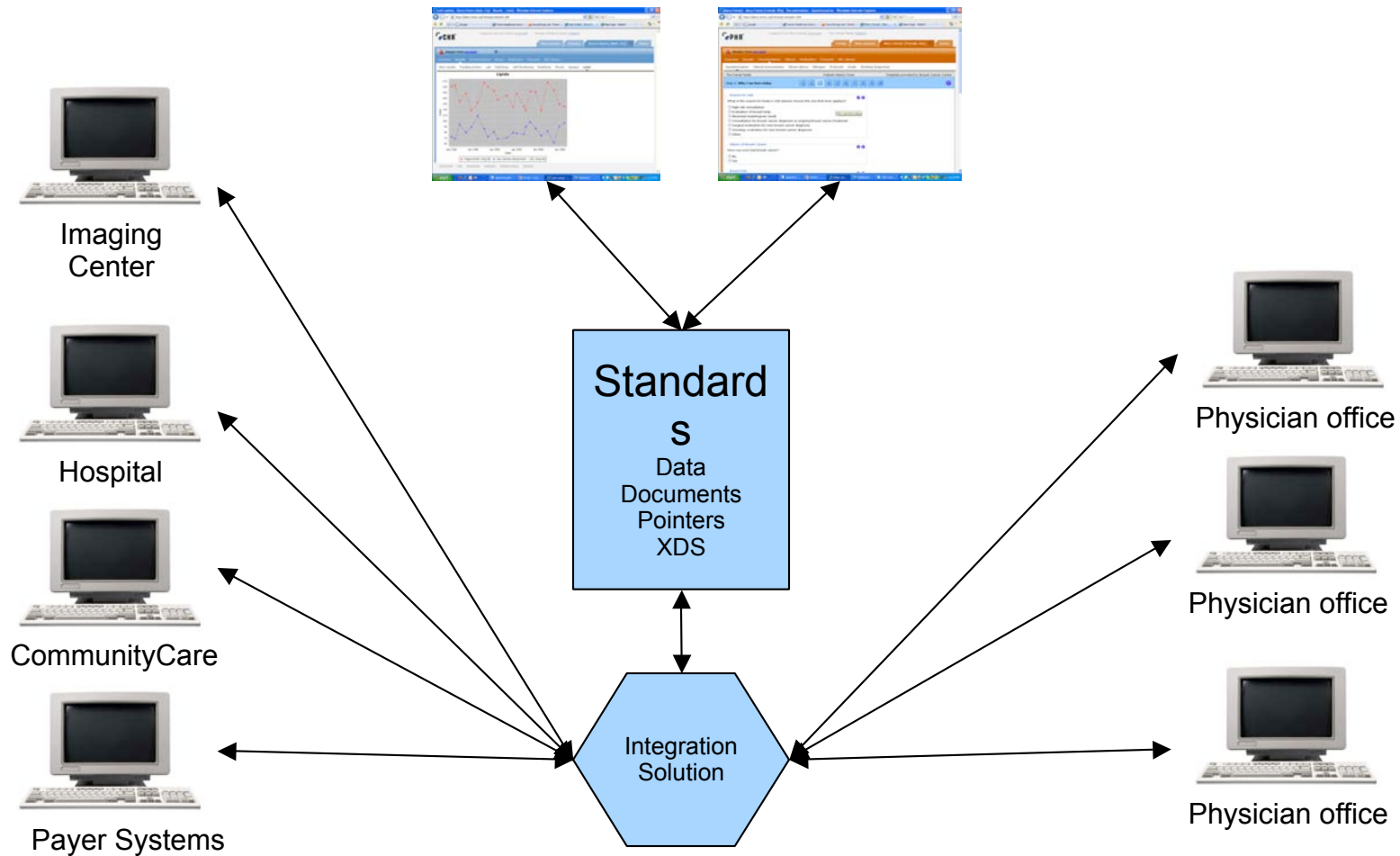
- An ecosystem for the development of innovative extensions to the Tolven end user solutions

The Platform

- **Open Source**
 - L-GPL license
- **Standards-Based Solution**
 - Continuity of Care Record index
 - HL7 data types
 - UMLS coding
 - EJB3, JME, web services, etc.
 - LDAP, SSL, PKI, etc.
- **Service Architecture**
 - Business process support
 - Rules engine
 - Third party system integration
- **Technology Independent**
 - Support for commercial and open source products

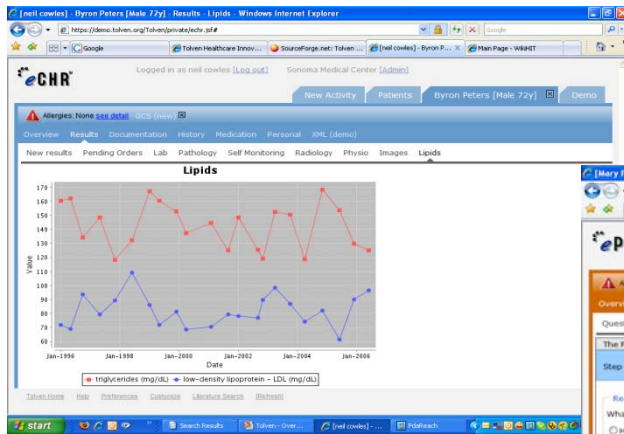


Deployment Options

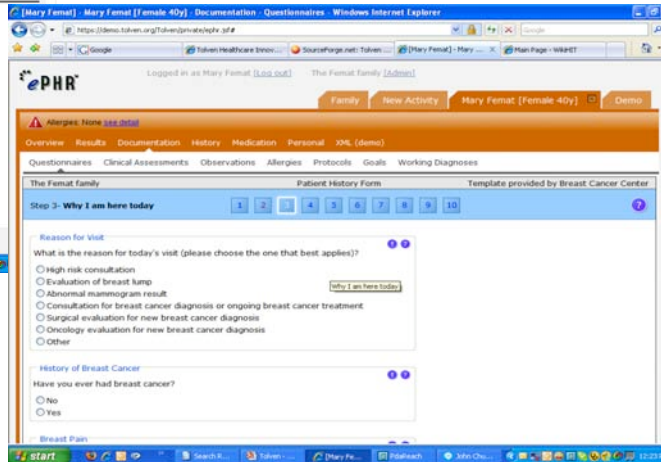


Demonstration

Clinician Health Record



Personal Health Record



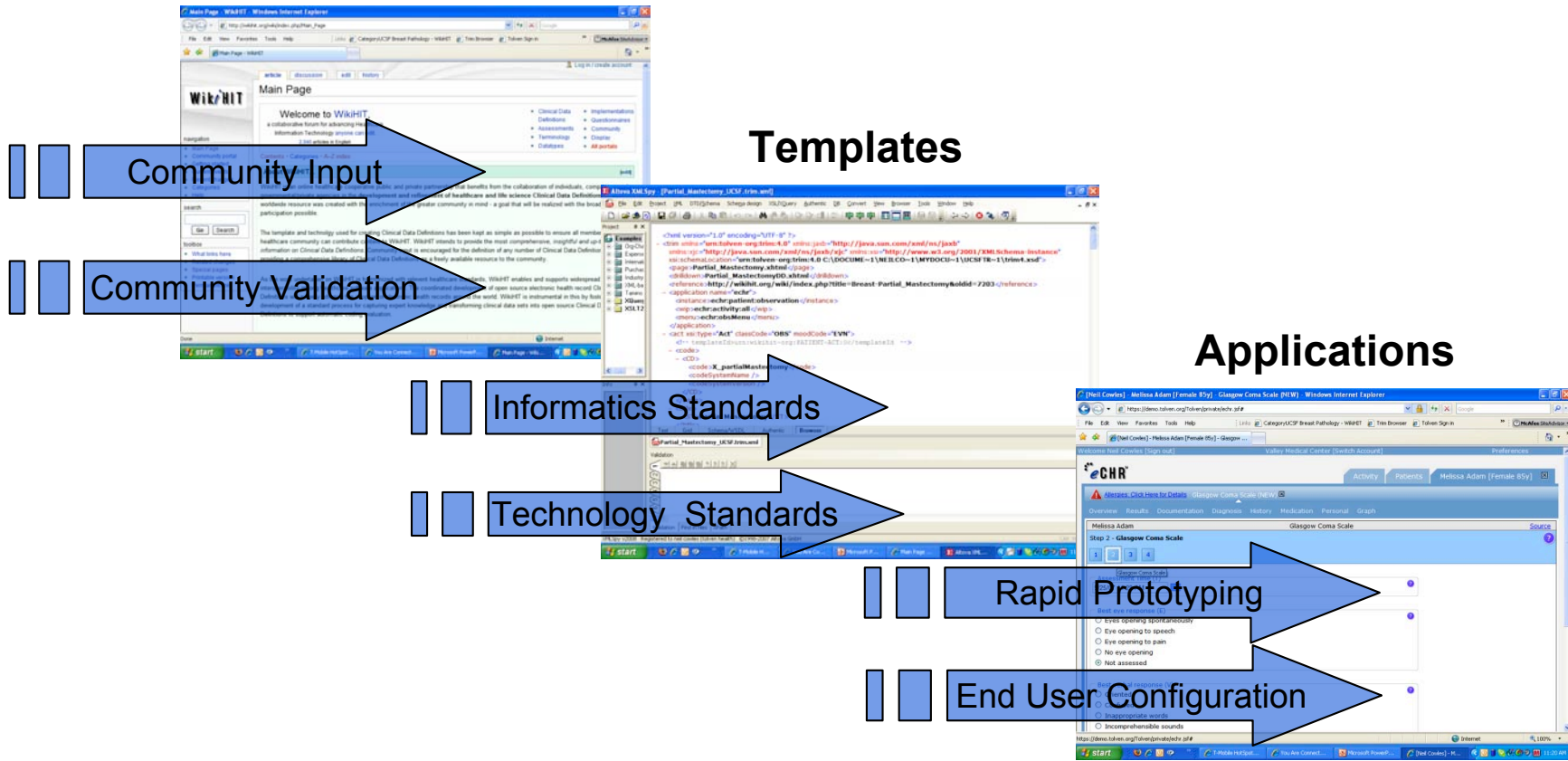
The screenshot shows a web browser window with the URL https://demo.tolven.org/Tolven/private/chr_3f#. The page is titled "Patient History Form" and displays a form for "Step 3 - Why I am here today". The form includes a "Reason for Visit" section with radio button options: "High risk consultation", "Evaluation of breast lump", "Abnormal mammogram result", "Consultation for breast cancer diagnosis or ongoing breast cancer treatment", "Surgical evaluation for new breast cancer diagnosis", "Oncology evaluation for new breast cancer diagnosis", and "Other". There is also a "History of Breast Cancer" section with a question "Have you ever had breast cancer?" and radio button options "No" and "Yes".

Mobility and Device Integration



Rapid Development

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Collaborative Design and Application Development

Open Source Approach

The Open Source Advantage



- Proven Underlying Open Source Components
 - Promotes re-use of existing components rather than re-build
 - Lower cost of ownership and proven scalability
- Professional and Technical Communities Involvement
- Transparency: *"It does what it says on the tin"*
- Radical Transformation of the Software Marketplace
 - Core technology (e.g., O/S, DB, AS, workflow, rules)
 - Business systems (e.g., analytics, financials, CRM, HCM)
 - Desktop (e.g., O/S, desktop, collaboration software)

Summary

Summary

- To be successful a solution needs to offer
 - Flexibility
 - Complement existing solutions
 - Supplement existing solutions
 - Integrate with existing solutions
 - Affordability
 - Open source applications and technology
 - Proven scalability
 - Security
 - Encryption
 - Consumer control