

Privacy, Security, and Trust in Healthcare

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Healthcare Implications

Healthcare is all about communities

- Patients
- Providers
- Payers
- Pharma

...that need to share information

- Securely, with
- Strong Authentication, and
- Simplified Identity Management

Enter Liberty

Liberty Alliance provides the means to build the Common Framework for e-Health

- Technology
- Policy
- Knowledge
- Certifications

Over 150 diverse member companies and organizations from around the world:

- Government organizations
- End-user companies
- System integrators
- Software and hardware vendors

Liberty Board and Sponsor Members

- More than 150 member organizations globally
- Driven by end-users, government organizations and vendors
- Led by Technology, Business and Public Policy Expert Groups

Management Board Members



Sponsor Members



What Is Liberty

Vision:

A networked world in which individuals, businesses, organizations and institutions can more easily interact and collaborate with one another while respecting the privacy and security of shared identity information.

NOT just about technology...

- Addressing the “whole issue” of identity with
 - policy
 - privacy
 - business/marketing
 - technology
- Interoperability conformance testing & certification

Liberty Alliance

- Consortium developing open standards
 - For federated identity management
 - In coordination with other standards groups
- Develops open specifications that anyone can implement
 - Liberty does not deliver specific products or services
- Conformance testing & certification to ensure interoperability
 - 30+ Liberty-enabled products and services currently available
- Addresses business & policy issues of identity
 - Guidelines, best practices documents, checklists
 - Support for global privacy regulations built into specs

Liberty's Structure Promotes Privacy and Security

- Federated structure means no single centralized data storage that would be vulnerable to attack
- End user has more control of data because permissions travel with data, guiding its use
- No global identifier--model protects against unauthorized data sharing

The Liberty Advantage

- **Wide-spread adoption**
 - Multiple vendor competition
 - Freedom of choice
- **Convergence with other standards**
 - e.g., SAML2.0, Shibboleth
- **Federated authentication model**
 - No central point of failure
- **Built on standards**
 - Works with existing legacy systems and future development plans
- **Privacy & security best practices**
 - Create trust for all participants
- **Conformance testing & certification**
 - Provides for multi-product interoperability

Role of Liberty in Healthcare

Makes it much easier for patients, providers and payers to share results of authentication

- Securely
- In a controlled manner
- Easily

Enables easier, faster HIPAA compliance

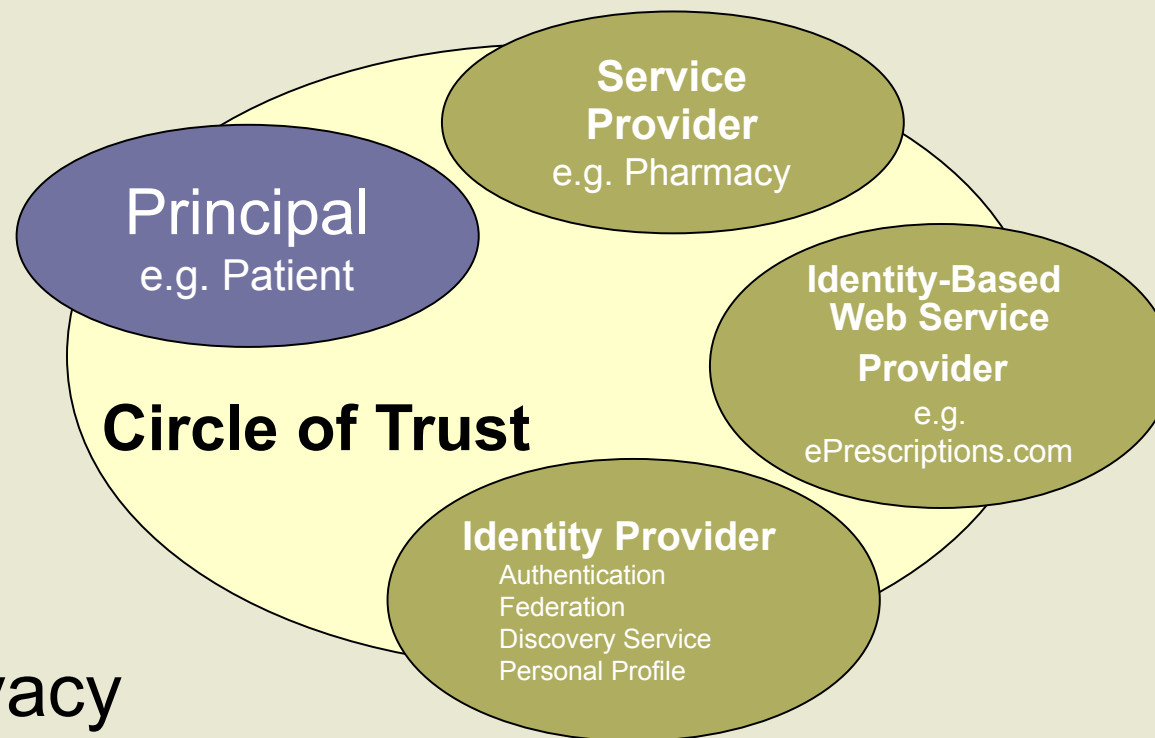
- Access control
- Audit control
- Authorization control
- Entity authentication



How it Happens

Circle of Trust – organizations and individuals

- Business relationships based on Liberty architecture & operational agreements
- Enables patients, physicians and healthcare organizations to safely share information in a secure and apparently seamless environment



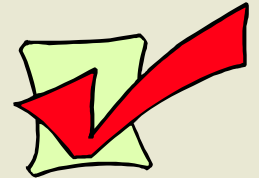
Without violating privacy

Liberty's Answer

Provide benefits of network technology to the healthcare industry without compromising security or control over PHI

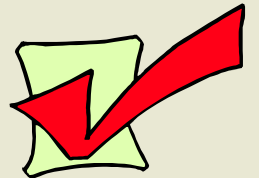
For Patients:

- Convenience of single sign-on
- More control over privacy and PHI
- Improved access to relevant medical information
- Ease of dealings with healthcare providers & payers
- Improved patient trust and quality of care



For Providers:

- Reduced medical errors and better patient outcomes
- Better and more services, new revenue opportunities
- Improved access to relevant medical information
- Improved operating efficiencies that reduce costs
- Standardized, interoperable architecture reduces IT costs
- Easier, faster HIPAA compliance
- Improved patient trust and quality of care



ePrescribing Example

Without Federated Authentication
Issues

With Federated Authentication
Benefits

ePrescribing Example

- **What is ePrescribing?**
 - Review, enter, manage, and sign prescriptions electronically
 - Integrate patient data from an EMR
 - Medical conditions, current and prior medications
 - Obtain clinical decision support
 - Alerts and reminders to promote guideline compliance, prevent prescribing errors
 - Assess eligibility and benefits
- **What parties are involved?**
 - Clinician, patient, pharmacist, healthcare technology vendors, health insurance organizations, etc.
 - All potentially share patient-identifiable information



Without Federated Authentication

- Adam visits Dr. Jones' office; Dr. diagnoses flu
- Dr. authenticates to ePrescription.com
 - Selects Adam from patient list
- ePrescriptions.com shows list of drugs allowed by Adam's plan
- Dr. Jones selects appropriate drug from list
- Dr. specifies details, submits prescription
- ePrescription.com submits prescription to pharmacy

Possible Issues

- Adam might have medical conditions unknown to ePrescription.com
 - Adverse reactions
- Adam's insurance might not cover medications
- Patient information not communicated to all parties
- Doctor needs to re-authenticate each time he wants to use ePrescription.com
 - Time-constrained users need ease of use
- Logistical information may have changed
 - E.g. Adam may have changed pharmacies



With Federated Authentication

- Dr. accesses ePrescription.com, selects Adam
 - Results of previous authentication retained!
- ePrescription.com uses Discovery Service
 - Finds Adam's health records and determines appropriate formulary information
 - Queries relevant information, such as allergies
 - Determines allowed drugs for Adam
- Dr. Jones selects drug from list; submits prescription
- ePrescription uses Adam's Discovery Service
 - Locates his personal profile provider – ensuring right pharmacy used
- Pharmacy uses Discovery Service
 - Sends IM, to Dr. to clarify issues

Benefits

- Better information sharing among patient, physician, health insurance, pharmacy
 - Leads to better patient outcomes
 - Information is timely and coordinated
- Easier for doctor to use electronic systems
 - No re-authentication required
- More secure for patient
 - Personal health information shared in controlled manner
- Overall, better service to patient



Call to Action: Join Us!

Liberty brings value to our Healthcare members:

- Federated Identity Management provides “plumbing” standards that:
 - Support key elements of NHIN interoperability
 - Make it much easier for patients, providers and payers to share results of authentication
 - Enable easier, faster HIPAA and other “best practice” compliance
- Conformance and compliance testing that assure base levels of interoperability and functionality

For more information:

https://www.projectliberty.org/resources/featured_verticals_health.php

Become Engaged:
See the specifications and white papers at:
www.projectliberty.org
Become a member!



See also: User centric identity demo
at: <http://blogs.sun.com/hubertsblog>