

Healthcare Services Platform Consortium (HSPC)

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HSPC, Chief Operating Officer

Intermountain Healthcare, Informaticist

Brief Introduction

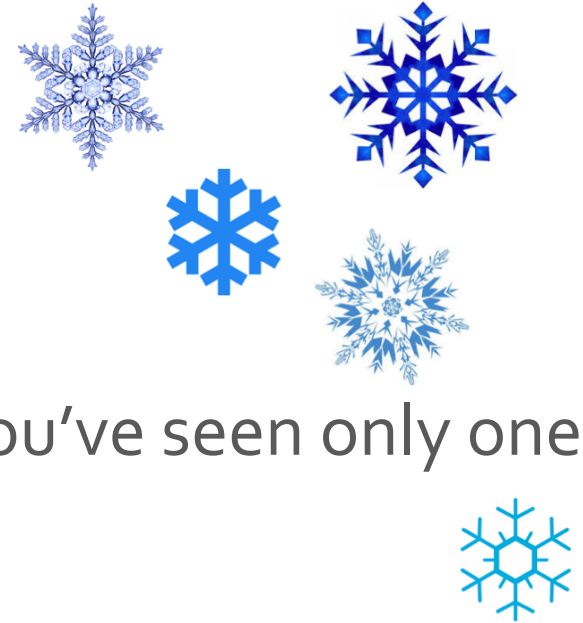
- Nurse Informaticist at Intermountain Healthcare
- Chief Operating Officer for the Healthcare Services Platform Consortium (HSPC)
- Active participant in HL7 for over 10 years
 - Co-chair of Patient Care WG
 - Co-chair of Emergency Care WG
 - Co-chair of Healthcare Standards Integration WG
 - Member of the Learning Health Systems WG
 - Member of the Clinical Interoperability Council WG
- Active Participant in IHE for over 10 years
 - Co-chair of the Patient Care Coordination Planning Committee
 - Past co-chair of Patient Care Coordination Technical Committee
 - Past member of the IHE-USA Board

Three Hats

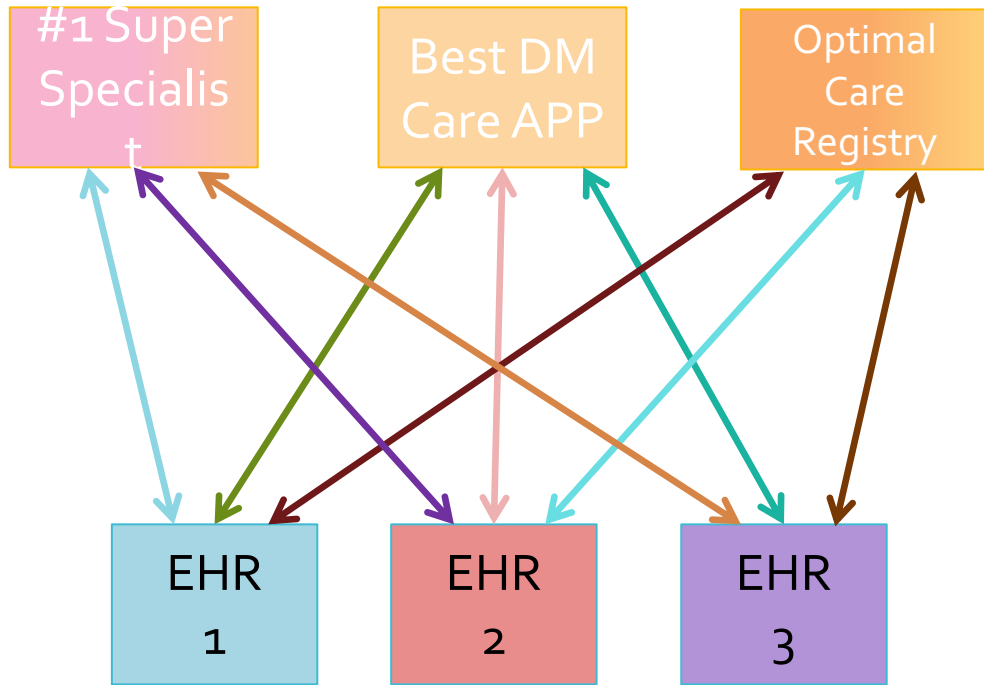
- Intermountain Healthcare
 - Not-for-profit Health System based in Salt Lake City, UT
 - 22 Hospitals, 180+ Clinics, 37,000 Employees
- Healthcare Services Platform Consortium (HSPC)
 - Not-for-profit 501c3 Provider-led consortium promoting semantically interoperable applications and services
- Health Level Seven (HL7)
 - ANSI Accredited Standards Development Organization

Electronic Health Records

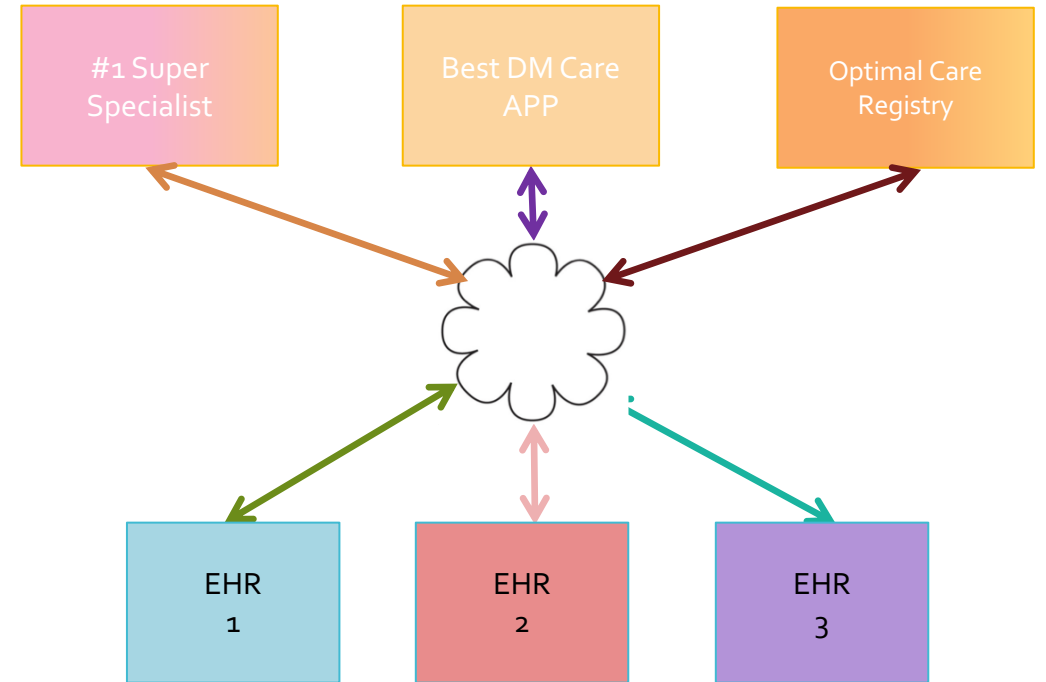
- An EHR is like a snowflake
- When you've seen one EHR... you've seen only one EHR
- Even worse, when you've seen one instance of an EHR... you've seen only one instance of an EHR
- Exchanging data and knowledge content between systems requires 1:1 attention



This is today....

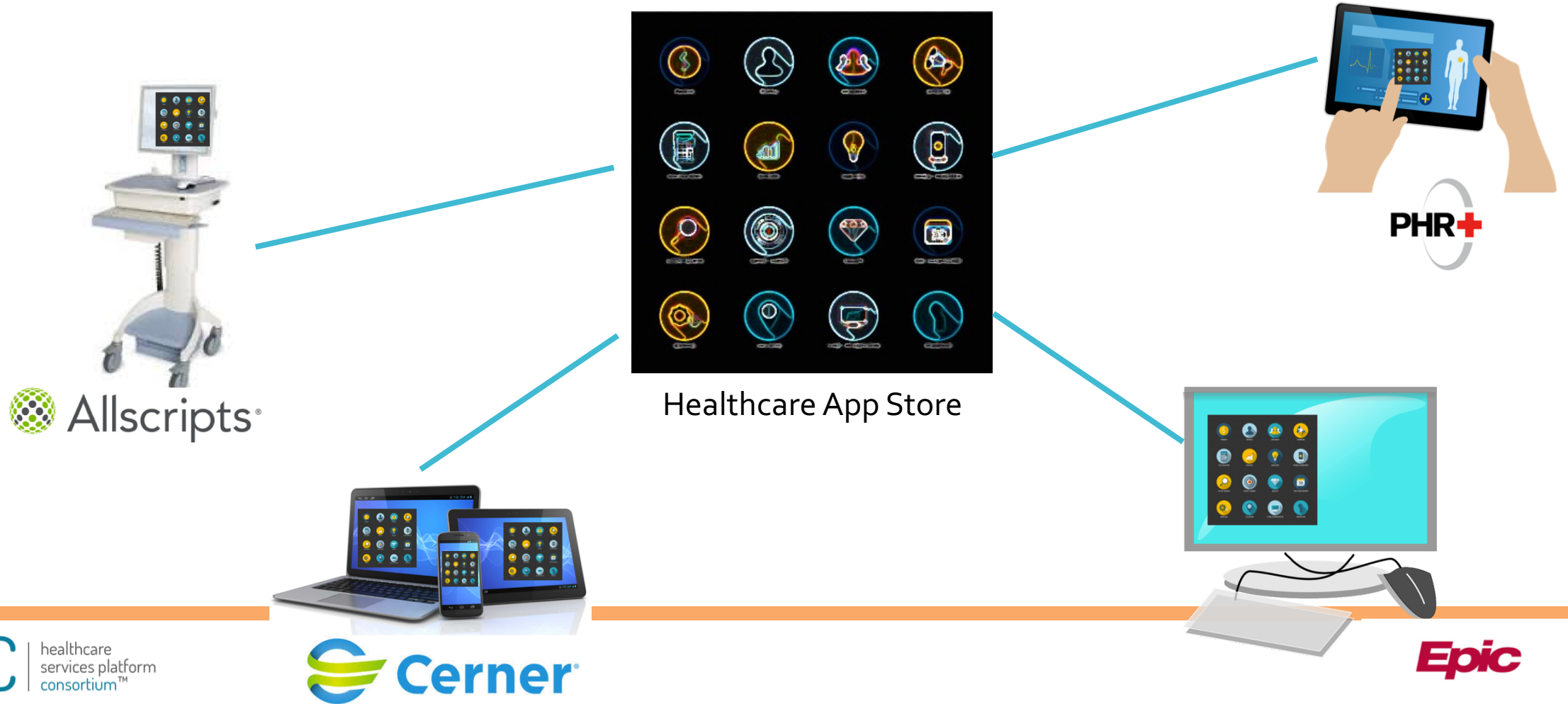


Tomorrow: Plug and Play Interoperability



Imagine....

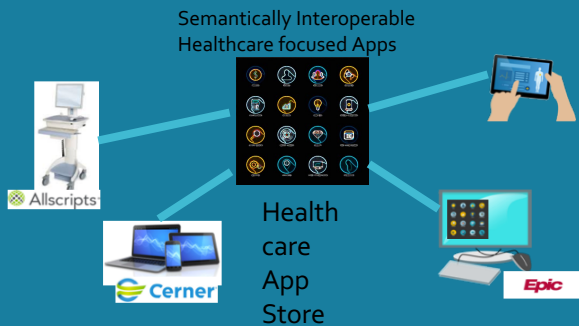
Semantically Interoperable Healthcare focused Apps



What needs to happen to make this work?

- Data elements consistently defined
- Standardized data exchange
- Standardized knowledge representation and (content) exchange

What needs to happen to make this work?



- Data elements consistently defined – **CIMI**
- Standardized data exchange - **HSPC SOA Platform, FHIR, SMART on FHIR,**
- Standardized knowledge representation and (content) exchange - **BPMN, etc.**

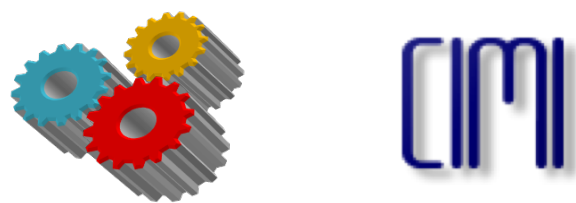
Application



Interface



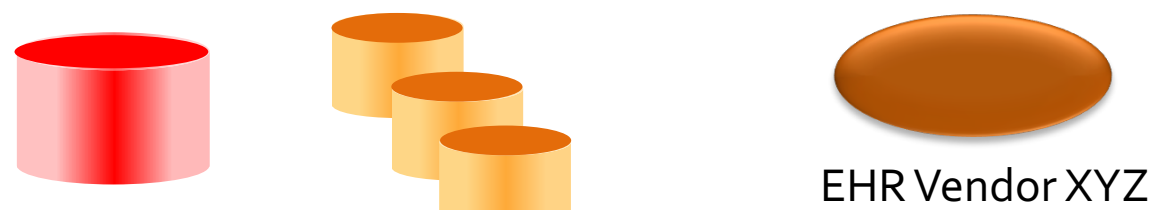
Data Transformation



Service



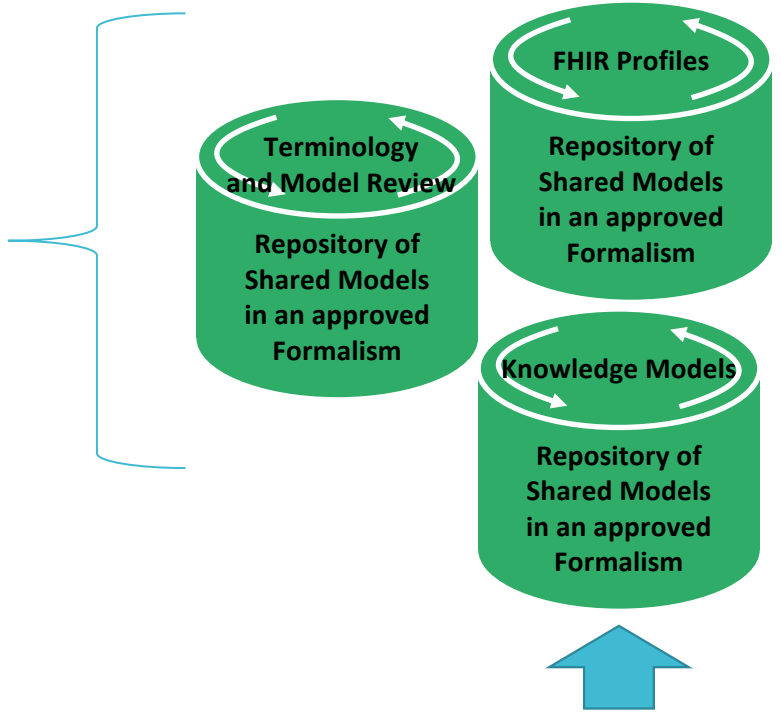
Data



EHR Vendor ABC

EHR Vendor 123

Terminology and Model Libraries
Clinical Content Representation



Healthcare Services Platform Consortium

HSPC

- Not-for-profit corporation founded by
 - Intermountain Healthcare
 - Louisiana State University
 - Veteran's Administration
- Support from providers, government, standards orgs, professional societies, EMR vendors, 3rd party developers
- F2F meetings 3-6 times per year, ongoing discussion between

Healthcare Services Platform Consortium

HSPC

Mission

Improve health by creating a vibrant, open ecosystem of interoperable applications, content, and services

Vision

Be a provider-led organization accelerating the delivery of a platform that supports innovative healthcare applications for the improvement of health and healthcare.

Key Functions of the Consortium

- Support **reliable sharing of a variety of knowledge content** to support clinical decisions and processes
- Provide a Healthcare Community Cloud and Vendor **Neutral Marketplace**
- Create **standards based models and terminology** that support **semantic interoperability**
- **Support conformance and certification testing** to ensure true semantic interoperability
- **Create and support collaboration** between providers, vendors, and standards development organizations to reach true semantic interoperability and a plug and play application development environment.

Key Technical Activities

- Development of **consistent information models**
 - HL7 Clinical Information Modeling Initiative
 - FHIR Profiles
- **Definition** of reference **SOA platform architecture**
- Creation of **reference implementation**
- Application development site (**sandbox**)
- Strategy for **conformance testing**
- Development of a healthcare community cloud and vendor **neutral ecosystem**

HSPC Initiatives

- Be a provider led collaboration agent
- Create a reference implementation of common SOA
- Develop terminology and information models for true semantic interoperability
- Support authoring and sharing of knowledge content
- Create a shared technical environment to enable simple and efficient development and discovery
- Support conformance and certification testing
- Support a vendor and provider neutral marketplace
- Tooling

*Be a provider led
collaboration agent
by convening
healthcare providers,
professional
organizations and
vendors to facilitate
the creation and
sharing of
applications and
services*

Facilitate the Creation and Sharing of Applications and Services (Operations)

- Business Development /Innovation /Consortium Management
- Membership, Marketing, Meetings
- Website, wiki
- Finances
- Organizational development, PMO
- Educational Offerings

Create a reference implementation of common services-oriented architecture (SOA) and define the governance, behavior/functions and APIs

Create a Reference Implementation of a Common SOA

- Focus on behaviors instead of a certain outcome/product
- Not just one technology – strong mixture of technologies..
- Governance, Platform and Resources

*Develop terminology
and information
models as a
foundation for true
semantic
interoperability*

Develop Terminology and Information Models

- CIMI Architecture
- Model Transforms
- Model Development Pipeline
- Support SOLOR Terminology
- Versioning and Governance Processes for Terminology and Models
- Terminology and Modeling Tooling Roadmap

Support reliable authoring and sharing of a variety of knowledge content to support clinical decisions and processes.

Support Authoring and Sharing of Knowledge Content

- Describe a strawman authoring environment for clinical decision support artifacts. Demonstrate its use by authoring several different CDS modules.
- Implement a Use Case supporting sharing of content. Demonstrate generalizability in a sandbox environment. Identify a system to test knowledge transfer.
- Publish proposed authoring framework with examples illustrating each component.

Create a shared technical environment to enable simple and efficient development and discovery of HSPC compliant models, applications and services

Create Development Resources and Environment (Developers)

- Developer's Engineering Space (Sandbox)
- Environment Operations and Maintenance
- Providing Educational Resources
- Outreach

*Support
conformance
and
certification
testing*

Support Conformance and Certification Testing

- Determine conformance criteria
- Develop endorsement requirements/process
- Develop certification process
- Develop or adopt testing tools
- Testing and Certification

*Support a
vendor and
provider
neutral
marketplace*

Support a Vendor and Provider Neutral Marketplace

- Build Infrastructure
- Community Implementation
- Resource Advertisement
- Vendor and Provider Neutral Marketplace Requirements
- Marketing

*Support
development
and/or use of
existing tools and
repositories for
creating,
translating and
managing models
and applications*

Model and Application Tooling

- Repositories/ Libraries
- Creation / Transformations
- Long term Maintenance
- Governance

HSPC Internet Sites

- Website:
<http://hspconsortium.org>
- Wiki:
<https://healthservices.atlassian.net/wiki/display/HSPC/Healthcare+Services+Platform+Consortium>
- Developer Website:
<http://www.developers.hspconsortium.org/>
- Sandbox:
<https://sandbox.hspconsortium.org>

Thank you



@HSPConsortium

#HSPCImplementersForum