Argonaut Project Kickoff Meeting

December 16, 2014
# Agenda

<table>
<thead>
<tr>
<th>Topic</th>
<th>Presenter(s)</th>
<th>Duration</th>
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<tbody>
<tr>
<td>Welcome and introductions</td>
<td>John Halamka</td>
<td>10 minutes</td>
</tr>
<tr>
<td>Project Overview</td>
<td>Micky Tripathi &amp; Chuck Jaffe</td>
<td>15 minutes</td>
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<tr>
<td>FHIR Team Overview</td>
<td>Grahame Grieve &amp; Chuck Jaffe</td>
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<tr>
<td>Security Team Overview</td>
<td>Dixie Baker</td>
<td>20 minutes</td>
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<tr>
<td>Participation &amp;</td>
<td>Micky Tripathi &amp; Chuck Jaffe</td>
<td>30 minutes</td>
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<tr>
<td>Communications</td>
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<tr>
<td>Wrap-up and next steps</td>
<td>Micky Tripathi</td>
<td>5 minutes</td>
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<tr>
<td>Agenda</td>
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Sponsors (11)

• athenahealth
• Beth Israel Deaconess Medical Center
• Cerner
• Epic
• Intermountain Health
• Mayo Clinic
• McKesson
• MEDITECH
• Partners Healthcare System
• SMART at Boston Children’s Hospital Informatics Program
• The Advisory Board Company
<table>
<thead>
<tr>
<th>Sponsors</th>
<th>Organization</th>
<th>Representative</th>
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<tbody>
<tr>
<td>athenahealth</td>
<td>Jeremy Delinsky</td>
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<td>Beth Israel Deaconess</td>
<td>John Halamka</td>
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<tr>
<td>Cerner</td>
<td>David McCallie</td>
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<tr>
<td>Epic</td>
<td>Carl Dvorak, Janet Campbell</td>
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<tr>
<td>Intermountain Health</td>
<td>Stan Huff</td>
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<td>Mayo Clinic</td>
<td>Cris Ross</td>
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<td>McKesson</td>
<td>Arien Malec</td>
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<td>MEDITECH</td>
<td>Hoda Sayed-Friel, John Valutkevich, Jon Brousseau</td>
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<td>Partners Healthcare System</td>
<td>Jim Noga, Perry Mar, Roberto Rocha</td>
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<td>SMART</td>
<td>Ken Mandl, Josh Mandel</td>
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<tr>
<td>Advisory Board</td>
<td>Aneesh Chopra, Dave Kates, David Chao</td>
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<tr>
<td>Staff</td>
<td>HL7</td>
<td>Chuck Jaffe, Grahame Grieve</td>
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<td>Martin, Blanck</td>
<td>Dixie Baker</td>
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<tr>
<td>MAeHC</td>
<td>Micky Tripathi, Jennifer Monahan</td>
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Purpose

There are three main motivations for this initiative

• Advance the recommendations of the JASON Task Force
• Support and accelerate development of market-ready, FHIR-based standards
• Spark industry leadership of the future of interoperability

Specifically, we would like to develop a first-generation FHIR-based API and Core Data Services specification and package it to support more rapid market adoption

• Support foundational FHIR work already underway at HL7
• Accelerate and focus work on more specific FHIR profiles and documentation
• Accelerate and focus accompanying security specifications and documentation

The Argonaut Project is simply pooling resources for a code and documentation sprint, the products of which will be openly available to the market

• Argonaut is not an organization or an entity – it is a time-limited project
• Argonaut does not intend to replace or compete with any existing initiatives – it will leverage and integrate relevant work already being done by other initiatives
• The products of Argonaut will be open standards and documentation available to all
Scope

The scope will be to deliver, by May 2015, US Realm Implementation Guides mapped to FHIR DSTU 2 Profiles for the following:

- **FHIR Data Query Profiles.** A set of FHIR Resources and accompanying profiles that enables query/response of the discrete data elements contained in the Common Meaningful Use Data Set (starting point: DAF Data Element definitions)

- **FHIR Document Query Profile.** A FHIR resource and profile that enables query/response of IHE X* metadata resources, and specifically, transition of care and patient summary CCDAs

In addition, the effort will produce an accompanying Security Implementation Guide to complement the FHIR Data Query and Document Query Profiles.

- **Security Implementation Guide.** Based on the SMART OAuth 2.0 and OpenID Connect profiles

Stewardship

- The FHIR Data Query Profile and FHIR Document Query Profile and accompanying Implementation Guides will be included as an informative ballot mapped to the general FHIR DSTU R2

- The Security Implementation Guide will eventually be incorporated in the HL7 balloting process but for this project will be developed in parallel to accompany the FHIR Data Query and Document Query Profiles and Implementation Guides
# Current Budget

<table>
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<tr>
<th>Category</th>
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<tbody>
<tr>
<td><strong>Budget</strong></td>
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<td><strong>Expenses</strong></td>
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<tr>
<td>Technical Resources and SMEs</td>
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<tr>
<td>• HL7</td>
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<td>• Martin, Blanck</td>
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<tr>
<td>Project Management</td>
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<tr>
<td>• HL7 (balloting orchestration)</td>
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<td>• MAeHC</td>
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<td>Contingency (10%)</td>
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<td><strong>Total</strong></td>
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<td><strong>Surplus/(Deficit)</strong></td>
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## High-Level Timelines (see team sections for more detail)

<table>
<thead>
<tr>
<th>Workstream</th>
<th>Months</th>
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<tbody>
<tr>
<td></td>
<td>Dec</td>
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<tr>
<td><strong>Project Initiation and Setup</strong></td>
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<tr>
<td>Finalize program structure, process, contracts</td>
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<tr>
<td><strong>FHIR Team</strong></td>
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<td>Team Kickoff</td>
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<tr>
<td>January FHIR Connectathon (San Antonio)</td>
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<tr>
<td>FHIR Data Query and Document Query Profiles available to HL7 community</td>
<td></td>
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<tr>
<td>FHIR Profiles and Implementation Guides included in informative ballots</td>
<td></td>
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<tr>
<td>FHIR DSTU R2 ballot</td>
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<tr>
<td>FHIR Data Query and Document Query Profiles and Implementation Guides finalized, packaged, and made available to market</td>
<td></td>
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<tr>
<td><strong>Security Team</strong></td>
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<tr>
<td>Team Kickoff</td>
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<tr>
<td>Complete review and update of SMART Implementation Guide</td>
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<tr>
<td>Security Implementation Guide finalized, packaged, and made available to market</td>
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<tr>
<td><strong>Meetings</strong></td>
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<tr>
<td>Argonaut Committee</td>
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<tr>
<td>FHIR Team</td>
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<tr>
<td>Security Team</td>
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In-person meeting?
Project Management Structure and Process

Track FHIR and Security Team progress and report status, variances, and issues to monthly meetings (MAeHC)

Flag issues and inter-dependencies and provide/facilitate resolution (MAeHC)

Manage HL7 consensus, balloting, and connectathon processes (HL7)

Report budget status and variances (HL7)

Provide and maintain collaboration solution for document management (HL7)
Alignment with Federal Certification

FHIR-based standards are not mature enough for inclusion in 2015 Edition Certification

If ONC does include FHIR-based APIs in federal certification, Argonaut timing would support the following glide path which provides a market signal in 2015 of anticipated inclusion of certification in 2016

- **2015 Edition Certification**
  - Include in Preamble, reference to the FHIR Data Query and Document Query Profiles, Resource Definitions, and Security Implementation Guides, with indication that these will be included in future Edition Certification

- **MU Stage 3 2015 CEHRT**
  - Include in Preamble, reference to the FHIR Data Query and Document Query Profiles and Security Implementation Guides, with indication that these will be included in future Edition CEHRT

- **Future Certification**
  - Include as per recommendation of HITSC based on standards maturity model

- **Future CEHRT**
  - Include as per recommendation of HITSC based on standards maturity model
Roles & Responsibilities

Project Argonaut Committee will provide:

- Course direction; high-level review and input; review of artifacts and deliverables; assistance with issue resolution; and recruitment of pilot sites
- Sponsors provide technical resources and SMEs for regular review of FHIR and Security Team artifacts

FHIR Team will be managed by HL7 and will provide:

- Technical SMEs to develop FHIR data- and document-level artifacts; navigation of artifacts through HL7 governance, collaboration, and balloting processes
- Sponsor volunteers review work of technical SMEs

Security Team will be managed by Dixie Baker and will provide:

- Technical SMEs to refine SMART security specification and implementation guide
- Sponsor volunteers review work of technical SMEs

MAeHC will provide Project Management including:

- Coordination of Argonaut Committee meetings; monitoring progress of FHIR and Security Teams; issue tracking and resolution; facilitation of recruitment for connectathons and pilots; ensure cross-Team communication/coordination; support internal and external communications
Contract Structure and Process

HL7 will be the Prime Contractor for the Argonaut Project

- HL7 will contract with all Sponsors and manage funds
- HL7 technical SMEs, Martin/Blanck and MAeHC will be Sub-Contractors

Current status of contracting

- HL7 technical SMEs, Martin/Blanck and MAeHC have provided contracts to HL7
- HL7 to finalize Sub-Contracts, develop/finalize contracts with Sponsors, invoice Sponsors, and begin payments to Sub-Contractors
Agenda

• Welcome and introductions  John Halamka  10 minutes
• Project Overview  Micky Tripathi & Chuck Jaffe  15 minutes
• FHIR Team Overview  Grahame Grieve & Chuck Jaffe  30 minutes
• Security Team Overview  Dixie Baker  20 minutes
• Participation & Communications  Micky Tripathi & Chuck Jaffe  30 minutes
• Wrap-up and next steps  Micky Tripathi  5 minutes
Project Argonaut Scope

To deliver, for May ballot, a US Realm Implementation Guides mapped to FHIR DSTU 2 Profiles for the following:

- **FHIR Data Query Profiles.** A set of FHIR Resources and accompanying profiles that enables query/response of the discrete data elements contained in the meaningful use common data element set
- **FHIR Document Query Profile.** A FHIR resource and profile that enables query/response of IHE X* metadata resources, and specifically, transition of care and patient summary CCDAs

Precondition: Actually publish a FHIR DSTU 2 for May ballot
HL7 Problem Statement

Publish the FHIR DSTU 2

- Ballot cycle (Draft for Comment open, DSTU 2 in May)
- QA improvements to ensure overall quality of specification
- *CCDA mapping - ensure meaningful use and CCDA requirements OK*

Publish Argonaut Profiles:

- Develop Candidate Data based & Document based Query Profile
- *Solicit & process detailed feedback based on implementation testing*

*Italics – activities that are directly supported by Project Argonaut*
CCDA Mapping

Already an HL7 project, already the right experts (CCDA + FHIR) working on it
  • Progress too slow to meet May deadline done in spare hours of busy people

Project Argonaut to support these experts to move to business hours engagement
  • Appropriate resources already identified and prepared

Plan to complete work by mid-Feb, but ongoing work required to engage with committees as follow up
Argonaut Profiles

First draft
  • Already prepared in advance of announcement (for HL7 publishing deadlines)
  • Data access profiles based on ONC DAF project
  • Document access profile based on IHE MHD document

Implementation / testing / feedback
  • HL7 Connectathon in January
  • Other testing being developed
  • Argonaut recruitment and liaison activities managed by Micky Tripathi
  • Feedback to committees
HL7 Profile development – Open Questions

Longer Term issues

- Increased technical debt internally to the specification
- Who manages the Argonaut profiles?
- How do these relate to other MU-relevant profiles?
Agenda

- Welcome and introductions: John Halamka - 10 minutes
- Project Overview: Micky Tripathi & Chuck Jaffe - 15 minutes
- FHIR Team Overview: Grahame Grieve & Chuck Jaffe - 30 minutes
- Security Team Overview: Dixie Baker - 20 minutes
- Participation & Communications: Micky Tripathi & Chuck Jaffe - 30 minutes
- Wrap-up and next steps: Micky Tripathi - 5 minutes
Purpose

To identify and characterize authentication and authorization risks associated with RESTful, FHIR-based transactions

To recommend enhancements to the “SMART on FHIR” specification set to address the identified risks
Scope

Authentication and Authorization for RESTful, FHIR based transactions

• Authentication – The provision of strong evidence that a subject (person or software) is the entity it claims to be
• Authorization – The granting (or denial) of access to a resource in accordance with the requester’s entitlements
• Does not include identity management (e.g., identity proofing, credentials management)

OAuth 2.0 and OpenID Connect Implementation Guidance

• Focus on enhancing “SMART on FHIR” implementation guidance, informed by other existing OAuth 2.0 and OpenID Connect implementation guidance
## Milestones and Timeline

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Deliverable</th>
<th>Target Date</th>
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<tbody>
<tr>
<td>Agree on documentation format requirements</td>
<td>N/A</td>
<td>Week of Dec 8, 2014</td>
</tr>
<tr>
<td>Security Implementation Guide Team Kickoff – agree on scope, requirements, milestones, deliverables, &amp; timeline</td>
<td>Updated PPT slides</td>
<td>Week of Dec 15, 2014</td>
</tr>
<tr>
<td>Identify authentication and authorization risks associated with use case(s)</td>
<td>Risk assessment</td>
<td>Week of Jan 5, 2015</td>
</tr>
<tr>
<td>Complete review of SMART and other applicable implementation guidance</td>
<td>Side-by-side assessment w.r.t. identified risks</td>
<td>Week of Feb 1, 2015</td>
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<tr>
<td>Complete draft update of SMART implementation guidance</td>
<td>Draft updates</td>
<td>Week of Mar 1, 2015</td>
</tr>
<tr>
<td>Complete review and update of SMART implementation guidance</td>
<td>Final updates</td>
<td>Week of Apr 1, 2015</td>
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</table>
1. Support definition of use cases to be addressed.

2. Identify authentication and authorization risks that need to be addressed within the defined use cases.

3. Review the “SMART on FHIR” specifications and other existing OAuth 2.0 and OpenID Connect implementation guidance with respect to their approach to countering the identified risks.

4. Present to the Project Argonaut Committee draft recommendations for modifying the “SMART on FHIR” implementation guidance.

5. Revise recommendations in response to feedback, and work with Josh Mandel to integrate the approved changes, as coordinated with the Project Argonaut Committee.

6. Document the security assessment and implementation guidance as requested by the Project Argonaut Committee.
Substantive Issue: Documentation Format

Current SMART on FHIR specifications are “pre-release” on-line documentation.

In order to reference these specifications as national standards, or as best practices for the industry, developers will need to be able to access version-controlled documentation.

Assuming that versioning can effectively be controlled and managed, will on-line specifications be acceptable, or will version-controlled PDF documents be required?
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  John Halamka  
  10 minutes

- **Project Overview**  
  Micky Tripathi & Chuck Jaffe  
  15 minutes

- **FHIR Team Overview**  
  Grahame Grieve & Chuck Jaffe  
  30 minutes

- **Security Team Overview**  
  Dixie Baker  
  20 minutes

- **Participation & Communications**  
  Micky Tripathi & Chuck Jaffe  
  30 minutes

- **Wrap-up and next steps**  
  Micky Tripathi  
  5 minutes
Alignment with other Standards Initiatives

HSPC

S&I (DAF)

IHE

Other?
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• Wrap-up and next steps  Micky Tripathi  5 minutes
Calendar

Argonaut Committee

- Jan 20 (3-5pm ET) – in person?
- Feb 17 (3-5pm ET)
- Mar 17 (3-5pm ET)
- Apr 21 (3-5pm ET)
- May 19 (3-5pm ET)

FHIR Team

- First working meeting: Already underway
- First review meeting: TBD

Security Team

- First working meeting: First week of January 2015
- First review meeting: Mid-January 2015
Next Steps

Argonaut Committee January meeting – in-person?

Charter public release

Recruit Sponsor volunteers for FHIR and Security Teams (look for follow-up email)

Recruitment for January Connectathon