The Office of the National Coordinator for Health Information Technology

S&I Initiative Update
Data Access Framework (DAF)

HITSC Meeting
May 20, 2015
S&I Initiative Coordinator- John Feikema
ONC Sponsor- Mera Choi

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Agenda

- Background and Overview
- Collaboration with SDOs and Current Activities
- Relationship to Other Projects
- DAF Future Phases
- Questions

Background and Overview

Data Access Framework:
Background

- DAF primarily focuses on enabling *providers* to access their patient's clinical information using **modular and substitutable standards and profiles**
  - Within their own Local Organization (Local DAF)
  - From a single Targeted external Organization (Targeted DAF)
  - From multiple external Organizations (Federated DAF – future phases)

Data Access Framework: Overview

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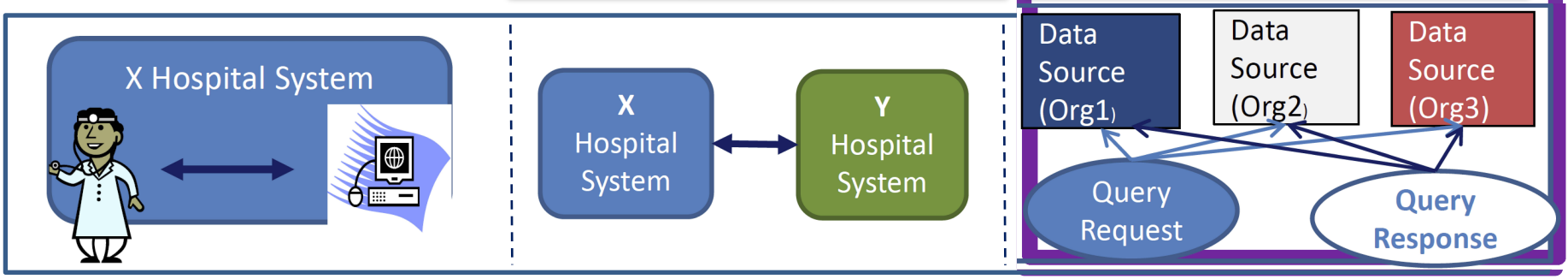
Data Access Framework

Local Access via Intra-Organization Query	Targeted Access via Inter-Organization Query	Federated (Distributed) Access across multiple organizations

• Create and disseminate queries internal to organization
  • Query Structure Layer
  • API's for Data Access
  • Authentication/Authorization Layer
• Receive standardized responses
  • Query Results Layer
	• Create and disseminate queries to single external Organization
	  • Query Structure Layer
	  • Transport Layer
	  • Authentication/Authorization Layer
	• Receive standardized responses from external orgs
	  • Query Results Layer
		• Create and disseminate queries to multiple orgs
		• governed by a network
		• Receive aggregated or de-identified responses
		• Focus on Information Model for the network and
		• Leverage standards from earlier phases.



Standards based approach to enable information access at all levels: Local, Targeted, and Federated (Distributed)

Data Access Framework:
Building Blocks and Scope

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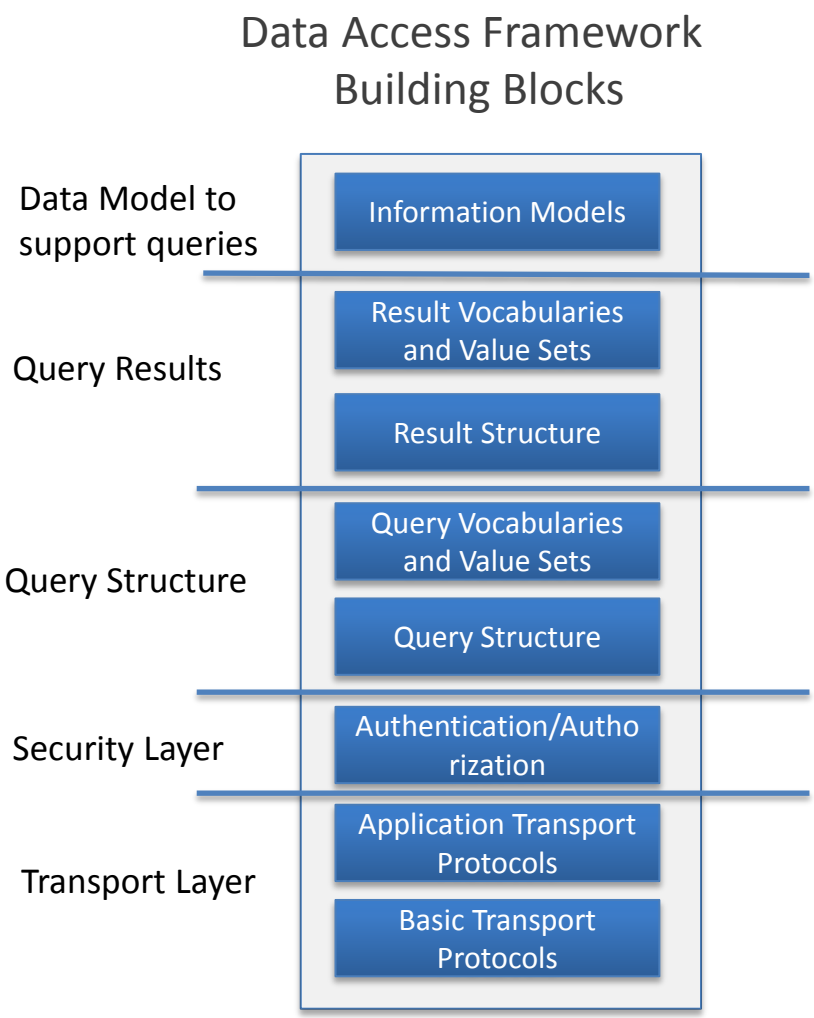

DAF Scope: Develop Implementation Guide using standards/profiles for specific use cases

- Local (Intra-Organization) access of clinical information from one or more systems
- Targeted access of clinical information from a single known external organization
- Use cases deal with accessing both data elements (e.g. problems, medications, procedures) and documents (e.g. C-CDA, C32)

DAF Out Of Scope

- Trust establishment between organizations for Targeted Query
- Discovery of End Points for Targeted Query
- Patient Matching rules and algorithms that organizations may implement
- Policies that allow/dis-allow disclosure of patient data

Data Access Framework:
Query Stacks

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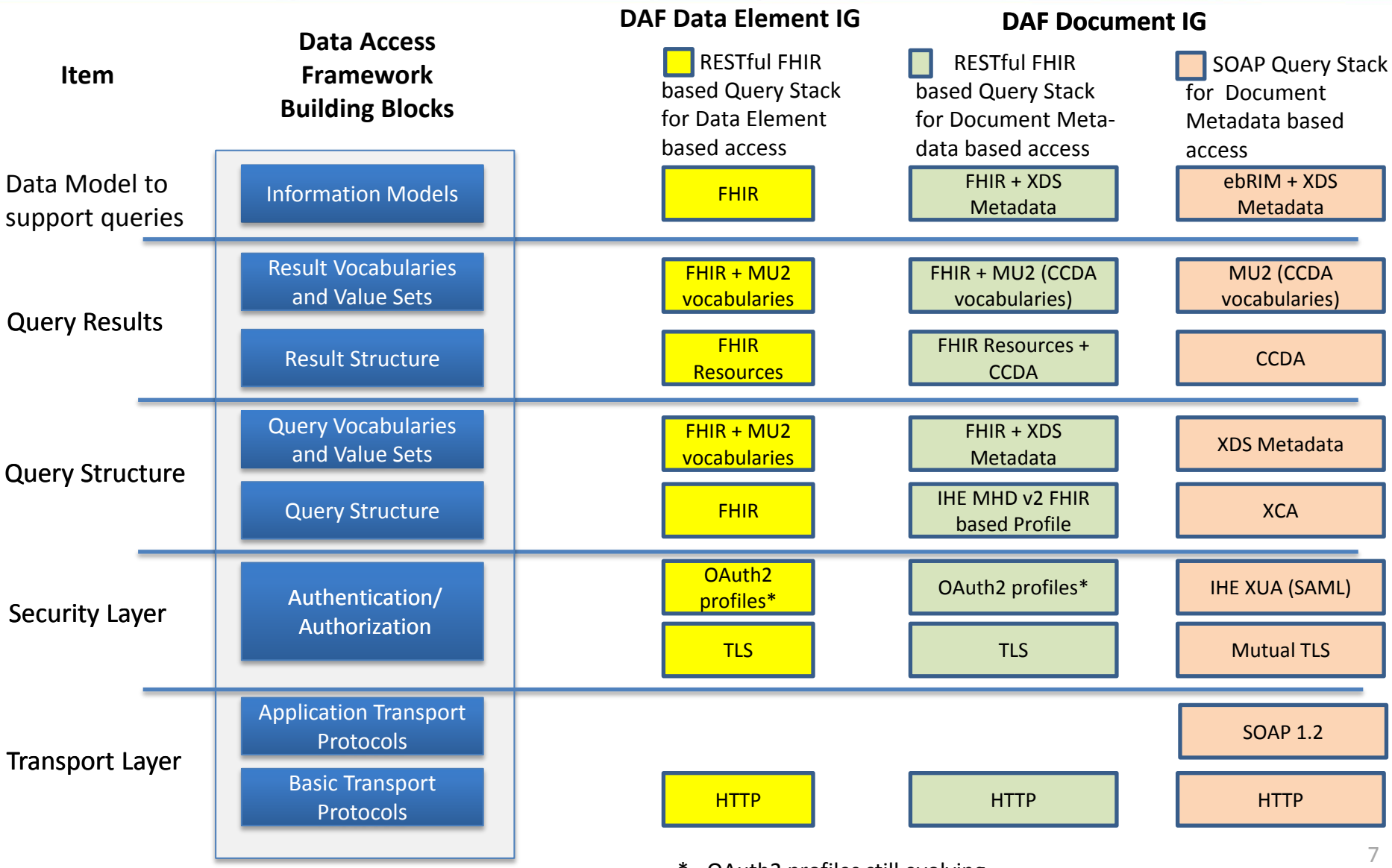

- * - OAuth2 profiles still evolving

Collaboration with SDOs and Current Activities

Data Access Framework:
Collaboration with SDOs

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DAF S&I Initiative – IHE PCC collaboration published DAF IHE White Paper in Fall 2014

- Identified existing IHE profiles that can be leveraged for Document Access
- Identified emerging FHIR based profiles for Document Access
- Identified gaps for discrete data element access

DAF S&I Initiative – HL7 Collaboration

- Developed an Implementation Guide using the FHIR standard for data element access
- HL7 PSS approved in Fall 2014 and published for DSTU2 in May 2015. (Currently under Ballot Reconciliation)
- Data Element list based on MU2 + Community Input
- Publish IG in Summer/Fall 2015 (based on FHIR DSTU 2 publication timeline)

DAF S&I Initiative – IHE USA / IHE PCC Collaboration

- Developed an Implementation Guide using the MHD v2 (FHIR based) profile for Document Access
- Developed implementation guidance for existing SOAP stack based on XCA
- Implementation Guide submitted to IHE for balloting
- IG expected for final publication Fall 2015 (following IHE processes)

Relationship to Other Projects

Other DAF Related Projects

- **Argonaut**
  - Project led by industry in collaboration with HL7, with goals that include the following:
    - Development of CCDA to FHIR Mappings
    - Security Guidance for FHIR
    - Accelerate FHIR Implementation and DSTU publication
    - http://www.hl7.org/fhir/2015May/argonauts.html
    - ***Relationship: DAF Data Element IG based on FHIR profiles is being reused by Argonaut***

- **HEART**
  - An MIT project supported by ONC as a Committed Member
  - The goal is to harmonize and develop set of privacy and security specifications/profiles to enable individuals to control access to RESTful health related resources using Oauth, OpenId, UMA
  - Develop open source reference implementations for the developed specifications/profiles
  - http://openid.net/wg/heart/charter/
    - ***Relationship: DAF Security layer could potentially reuse profiles/specifications developed by HEART***

DAF Future Phases – Federated (Distributed) Access

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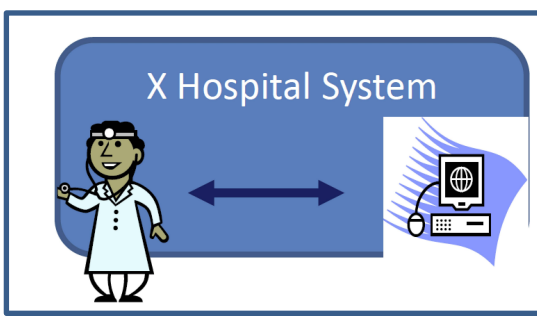

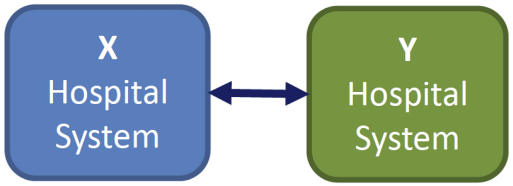

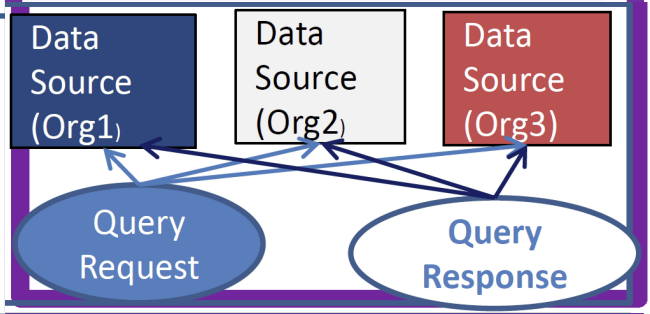

Standards based approach to enable information access at all levels: Local, Targeted, and Federated (Distributed)

Questions

Useful Links

- **DAF Homepage**
  - http://wiki.siframework.org/Data+Access+Framework+Homepage
- **DAF Initiative Signup**
  - http://wiki.siframework.org/Data+Access+Framework+Join+the+Initiative
- **DAF Charter**
  - http://wiki.siframework.org/Data+Access+Framework+Charter+and+Members
- **DAF Standards, Harmonization and Implementation Activities**
  - http://wiki.siframework.org/DAF+Standards+Harmonization+and+Implementation
- **DAF HL7 FHIR IG**
  - http://hl7.org/fhir/2015May/daf.html
- **DAF IHE White Paper**
  - http://ihe.net/uploadedFiles/Documents/PCC/IHE_PCC_White_Paper_DAF_Rev1.1_2014-10-24.pdf

Initiative Support Leads

- **For questions, please feel free to contact your support leads:**
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