Today's Agenda

01   **Event Overview**
Event goals and day-of agenda

InterOpathon Tracks   **02**
Review tracks available during the event

03   **Interoperability Land (IOL) Demo**
Step-by-step demo of logging into IOL and navigating the environment

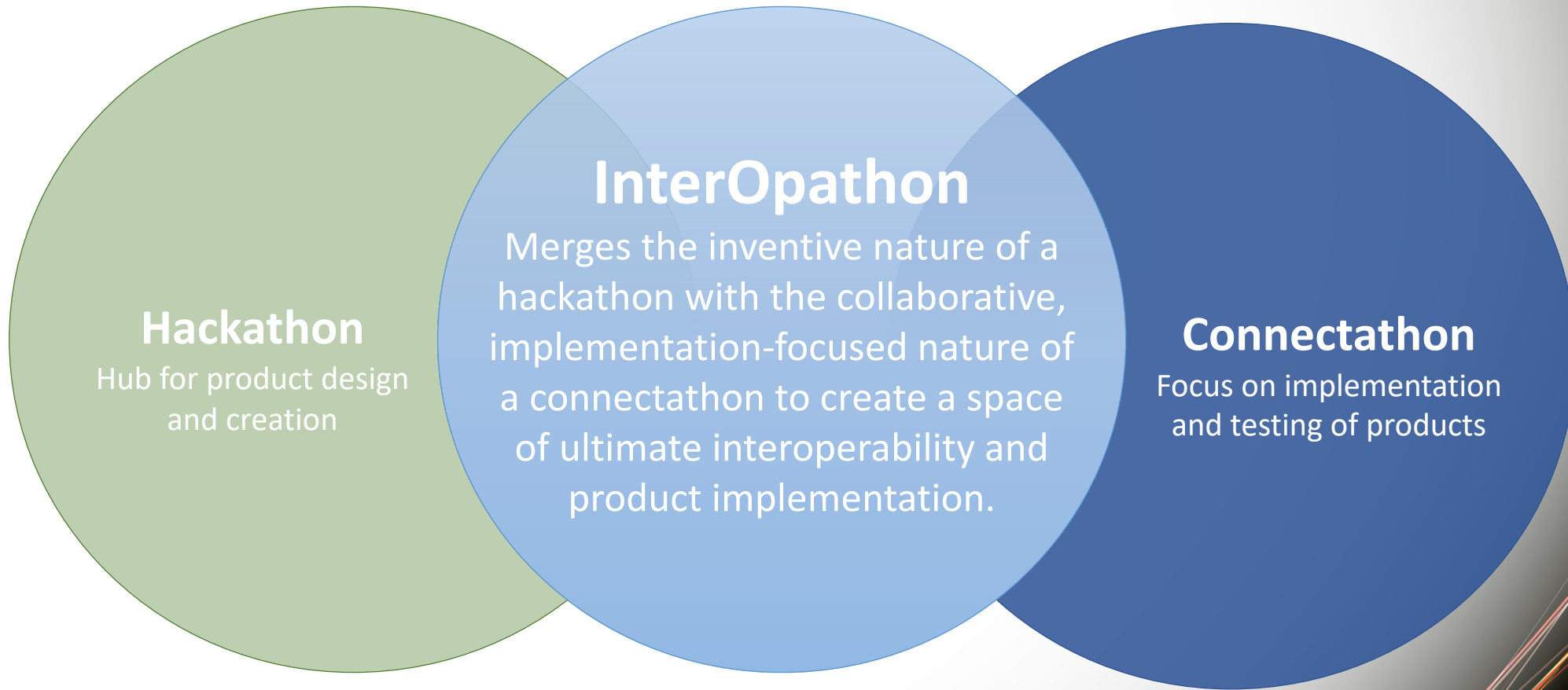**Track examples in IOL**   **04**
Developers will show example queries and help participants understand the data representation for event tracks

05   **Q & A**

Why "InterOpathon"?

Hackathon
Hub for product design and creation

InterOpathon
Merges the inventive nature of a hackathon with the collaborative, implementation-focused nature of a connectathon to create a space of ultimate interoperability and product implementation.

Connectathon
Focus on implementation and testing of products

#InterOpathon

Team Formation

- Registration officially closes tonight at 11:59PM

- Individuals will be assigned to teams based upon the use case selected

- Teams will be kept if possible to 5-6

- We will notify you by email of your team assignment

- Begin collaborating!

Goals For the InterOpathon

- Learn and explore real-world implementation

- Build innovative, working solutions using open APIs

- Build a community of interested stakeholders

- Prepare for ONC/CMS rules

- Have fun and win prizes! ☺

InterOpathon Agenda
Day 1 (Thursday, May 28th)

- 9:00 AM_{EST} Welcome
- 9:05 AM   Kickoff
- 10:00 AM   Team Huddle
- 12:00 PM   Lunch
- 1:00 PM   Breakout
- 1:30 PM   Bonus Challenge 1
- 2:00 PM   Show and Tell: Environment & Care Team
- 2:30 PM   Breakout
- 3:30 PM   Show and Tell: Demo Frames
- 4:00 PM   Bonus Challenge 2
- 4:30 PM   Coding and Build Time
- 6:00 PM   Day 1 Close Out

InterOpathon Agenda
Day 2 (Friday, May 29th)

- 9:00 AM EST   Day 2 Kickoff
- 9:05 AM   Continue Coding and Work Time
- 10:30 AM Presentation Formation
- 12:00 PM Lunch
- 1:00 PM   Record Demo
- 1:30 PM   Final Touches
- 2:00 PM   Submission Due and Event Closeout

InterOpathon – What do I need?

teamwork. Spaces

Participants will be added to their designated team space the week of the event – each participant will receive an invite via the email provided during registration.

slack

Each team will have their own slack channel for team communication and meetings. There will also channels for each HL7 Accelerator use case, help desk, general announcements, and submissions.
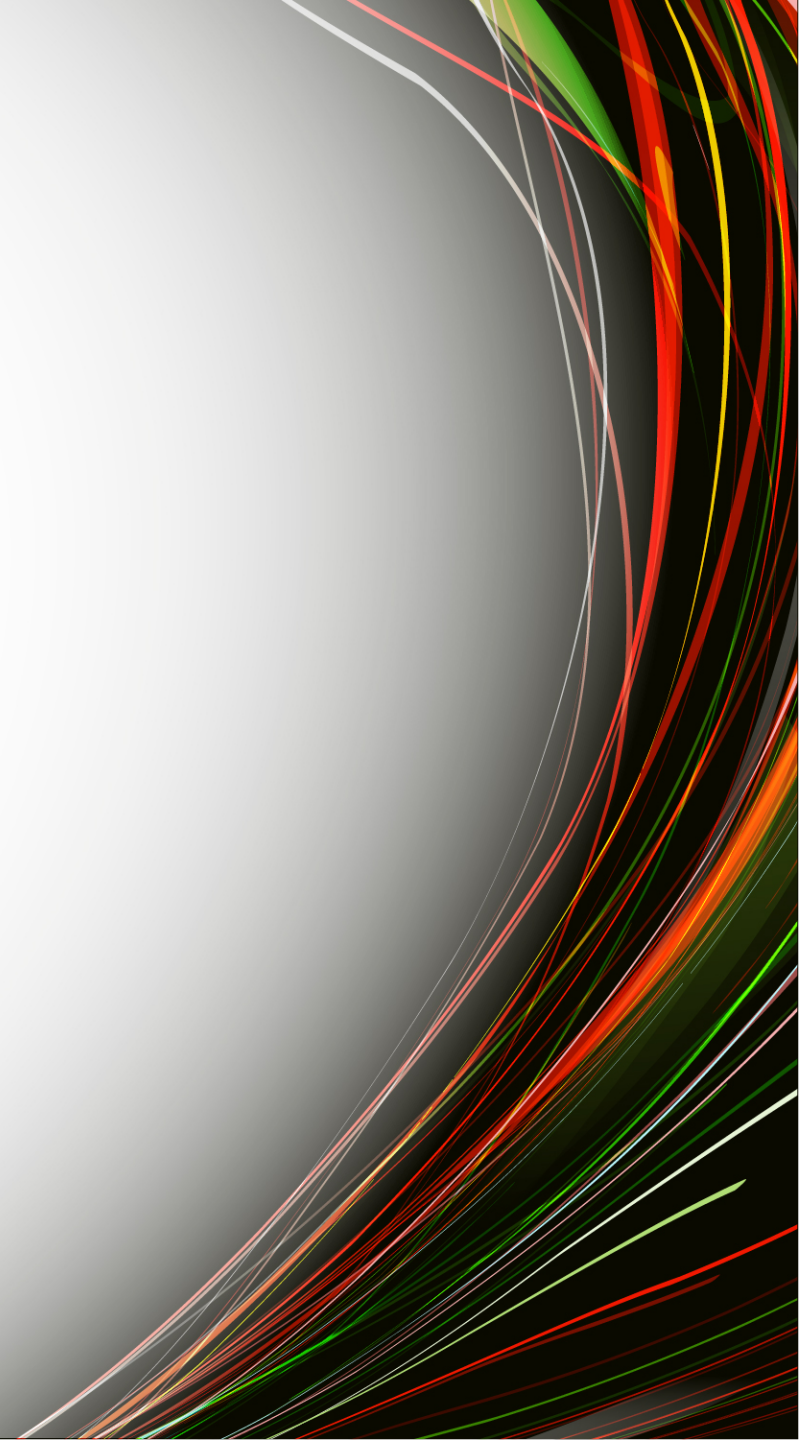
INTEROPERABILITY™ LAND
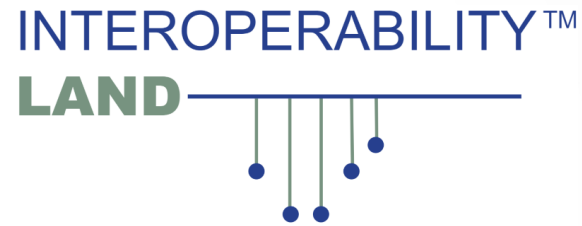
Participants will be added to their team IOL environment pre-configured based on track - each participant will receive an invite via the email provided during registration.

GitHub

An event GitHub will be shared with participants and will include all materials for the event including track materials, bonus challenge information, and webinar presentations.

Team Spaces

Home   Spaces   Required Reading   People

Search

Team 1

LINKED PROJECT

⊕ Add link to a project

PAGES   + Add page

Home
Day 1 Welcome (5/28 - 9:00 am EST)
Team Huddle & Solutioning (10:00...
Lunch Break (12:00 pm)
Breakout #1 (1:00 pm)
Bonus Challenge 1 (1:30 pm)
Show and Tell: Care Team (2:00 pm)
Bonus Challenge 2 (4:00 pm)
Coding and Building Time (4:30 pm)
Day 1 Close-out (6:00 pm)
Day 2 Kickoff (5/29 - 9:00 am EST)
Continued Working Time (9:05am)
Presentation Formation (10:30 am)
Demo Prep (11:00 am)
Lunch (12:00 pm)
Record Demo (1:00 pm)
Final Touches (1:30 pm)
Submission Due & Event Close (2:00...

Edit   Required

Team 1

1 min read

Interopathon GitHub: https://github.com/Interoperability-Institute/MiHIN-Virtual-Interopathon-2020

Interoperability Land (IOL): https://www.interopland.com/login

INTEROPERA
LAND ™

Interoperability Land™

A safe, collaborative, simulated healthcare environment implementing open standards that allows testing and development across different organizations.

◆ interopland.com

Team Track:

Team Members:

| Name	Role	Email

InterOpathon Tracks

1. Da Vinci Data Exchange for Quality Measures
2. Da Vinci Prior Authorization Support
3. Da Vinci Clinical Data Exchange
4. Gravity - SDOH
5. CARIN – CMS BlueButton
6. Stewards of Change – Project Unify
7. Open – No Specific Use Case

Da Vinci-Data Exchange Quality Measures (DEQM)

Data Exchange for Quality Measures

- Enable automatic data collection and submission

- Limit the need for manual processing and intervention

- Supports *exchange scenarios* and *reporting scenarios*
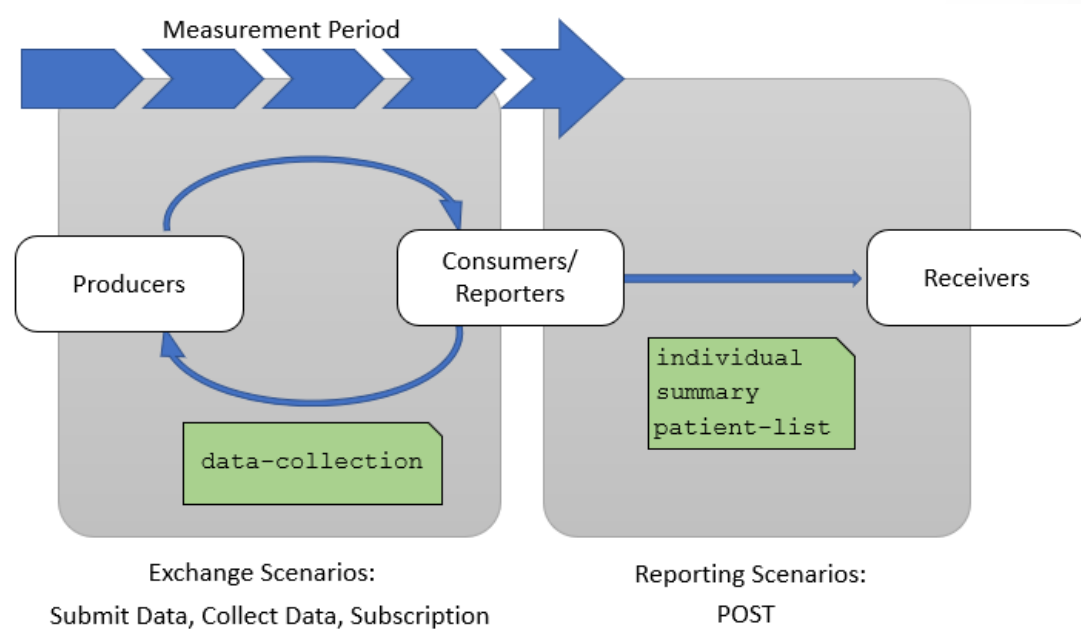
Exchange Scenarios

Focused on exchanging subsets of the data-of-interest for a particular measure or set of measures throughout the reporting period.

These scenarios enable providers and quality stakeholders to keep better track of how patients are performing with respect to a particular quality measure during the measurement cycle.
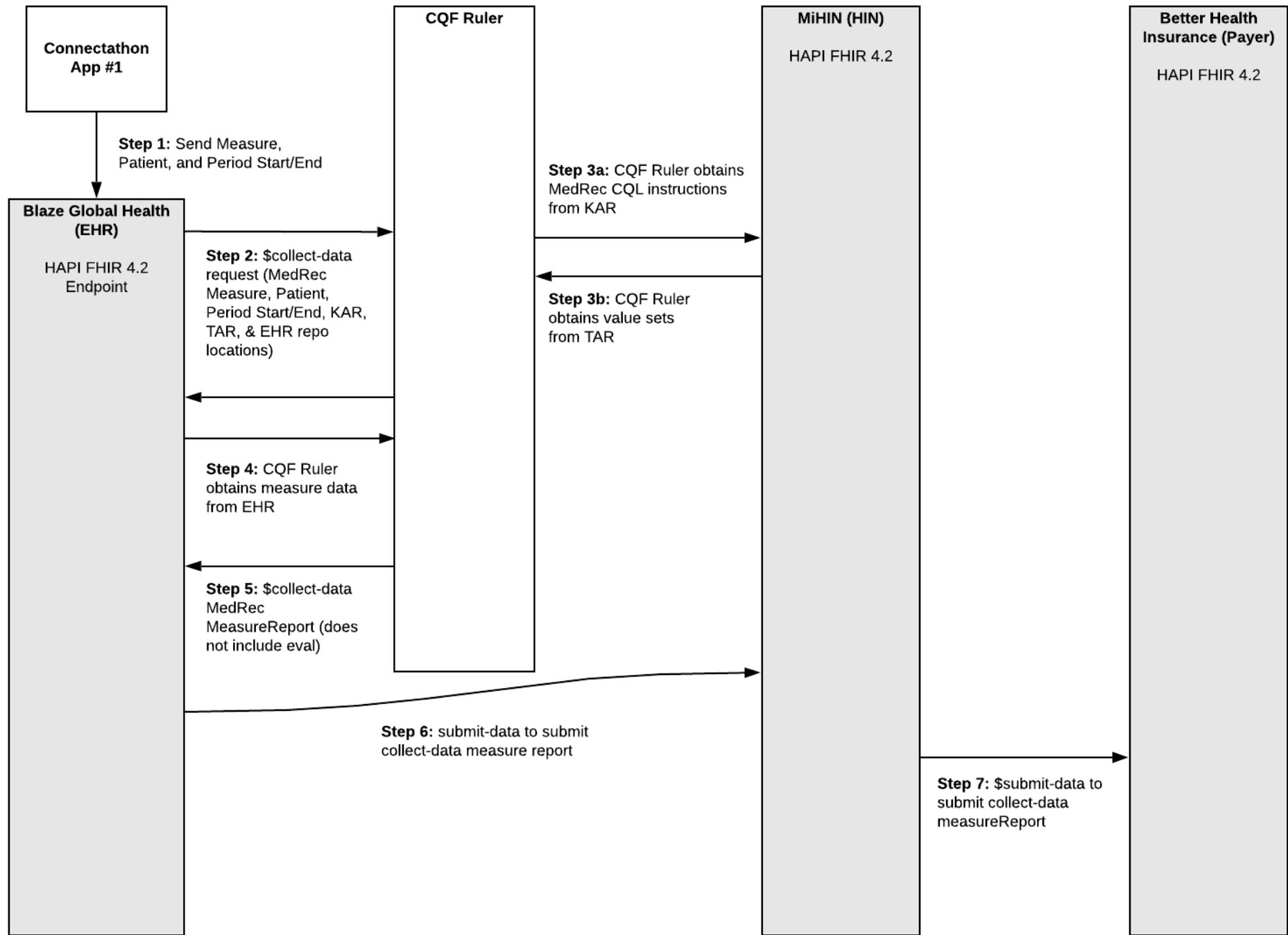
Reporting Scenarios

Focused on communicating the results of a quality measure at the end of a reporting period as part of a quality improvement initiative.

Measure reports are provided to attest the standard of care given to patients in a population as measured by specific quality measures as part of a quality improvement program.
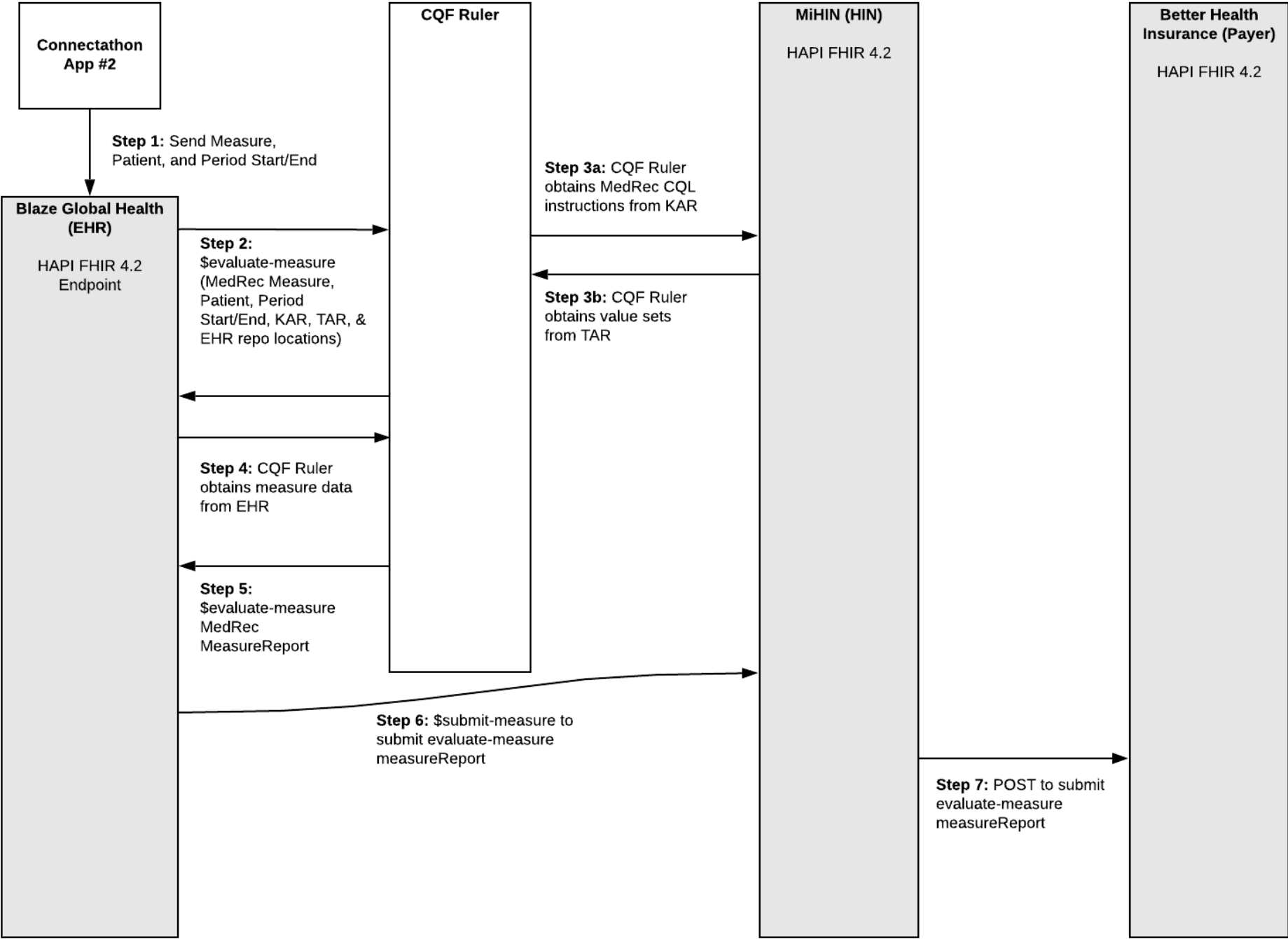
IOL DEQM Exchange Scenario

- Initiated by making an HTTP GET call to $notify-submit-requested endpoint available on the Blaze Global Health (EHR) PIT

- Used by producing system to submit a subset of the data-of-interest for a measure to a consuming system
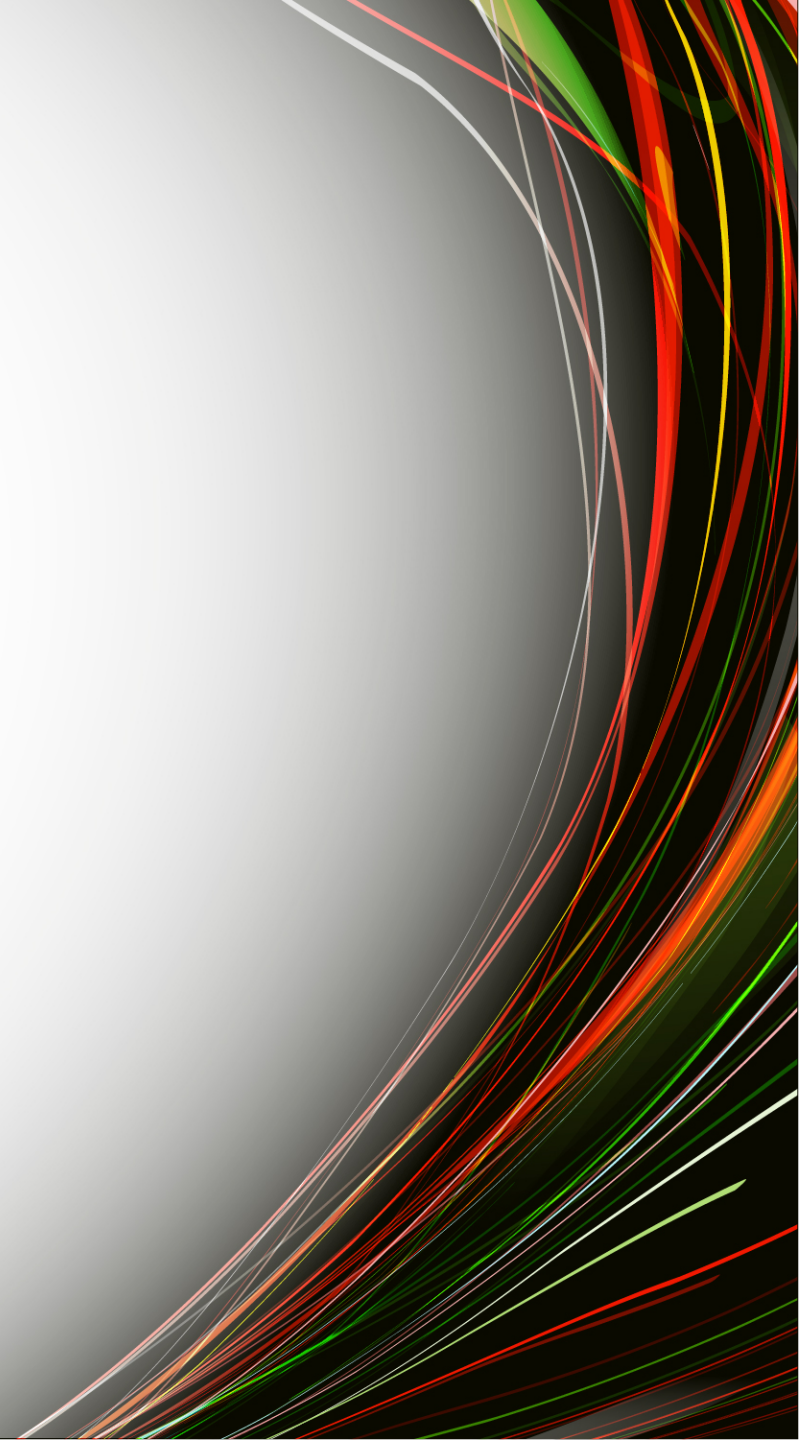
Connectathon App #1

Blaze Global Health (EHR)

HAPI FHIR 4.2 Endpoint

CQF Ruler

MiHIN (HIN)

HAPI FHIR 4.2

Better Health Insurance (Payer)

HAPI FHIR 4.2

Step 1: Send Measure, Patient, and Period Start/End

Step 2: $collect-data request (MedRec Measure, Patient, Period Start/End, KAR, TAR, & EHR repo locations)

Step 3a: CQF Ruler obtains MedRec CQL instructions from KAR

Step 3b: CQF Ruler obtains value sets from TAR

Step 4: CQF Ruler obtains measure data from EHR

Step 5: $collect-data MedRec MeasureReport (does not include eval)

Step 6: submit-data to submit collect-data measure report

Step 7: $submit-data to submit collect-data measureReport

IOL DEQM Reporting Scenario

- Initiated by making an HTTP GET call to $notify-report-requested endpoint available on the Blaze Global Health (EHR) PIT

- Used by producing system to submit a subset of the data-of-interest for a measure to a consuming system

Connectathon App #2

Blaze Global Health (EHR)

HAPI FHIR 4.2 Endpoint

CQF Ruler

MiHIN (HIN)

HAPI FHIR 4.2

Better Health Insurance (Payer)

HAPI FHIR 4.2

Step 1: Send Measure, Patient, and Period Start/End

Step 2: $evaluate-measure (MedRec Measure, Patient, Period Start/End, KAR, TAR, & EHR repo locations)

Step 3a: CQF Ruler obtains MedRec CQL instructions from KAR

Step 3b: CQF Ruler obtains value sets from TAR

Step 4: CQF Ruler obtains measure data from EHR

Step 5: $evaluate-measure MedRec MeasureReport

Step 6: $submit-measure to submit evaluate-measure measureReport

Step 7: POST to submit evaluate-measure measureReport

Da Vinci-Prior Authorization

Da Vinci CRD, DTR, and PAS Track
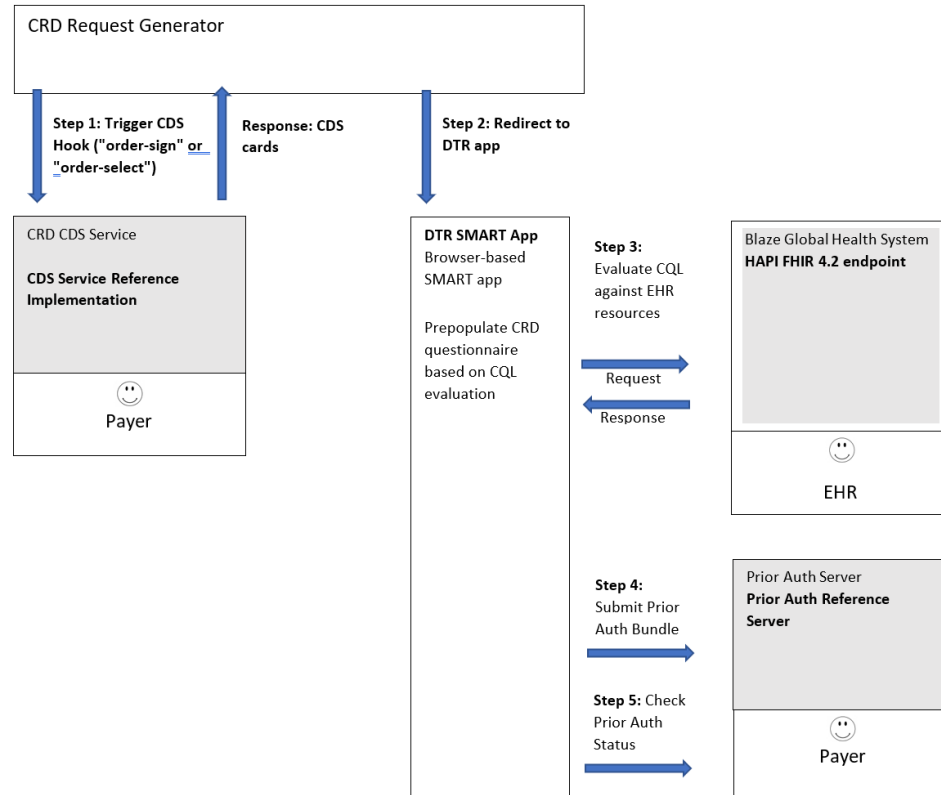

Anand Nathan

Senior Developer – Augusto

Introduction

- Automation of the payer claim flow
- Three separate but connected Da Vinci IGs
  - Coverage Requirements Discovery (CRD): https://build.fhir.org/ig/HL7/davinci-crd/

  - Documentation Templates and Rules (DTR): http://build.fhir.org/ig/HL7/davinci-dtr/

  - Prior Authorization Support (PAS): https://build.fhir.org/ig/HL7/davinci-pas/

Foundation Technologies

- FHIR Querying (https://www.hl7.org/fhir/search.html)
- CDS Hooks (https://cds-hooks.org/)
- SMART App Launch (http://hl7.org/fhir/smart-app-launch/index.html)
- CQL (https://cql.hl7.org/)

Reference Architecture

CRD Request Generator (https://github.com/HL7-DaVinci/crd-request-generator)

    Hosted Url: https://xxxx-xxxx.interopland.com/crd-req-gen/

CRD CDS Service (https://github.com/HL7-DaVinci/crd)

    Hosted Url: https://xxxx-xxxx.interopland.com/crd/

DTR SMART App (https://github.com/HL7-DaVinci/dtr)

    Note: This is not hosted within IOL

Prior Auth (https://github.com/HL7-DaVinci/prior-auth)

    Hosted Url: https://xxxx-xxxx.interopland.com/prior-auth/

Ideas

CRD CDS Service
- Intelligent medication substitutions
- Intelligent analytics for evaluating documentation requirements
- Fraud detection
- Wellness

DTR SMART App
- Documentation gathering
- Payer claim management

Prior Auth
- Decision support for processing prior auth requests
- Claim analytics
- Treatment effectiveness

Da Vinci-Clinical Data Exchange (CDeX)

Welcome

- The Da Vinci Interopathon Track covers an intro to using FHIR resources to find data for HEDIS/STARS quality of care measures.

- Suitable for those who haven't worked with FHIR resources before, and want an introduction to how FHIR resources are used

- For developers, it's recommended to be somewhat familiar with generating HTTP POST requests via Postman, cURL, or some other programming interface. This will allow you a programmatic way to access test resources for developing FHIR solutions.

Use Case Focus Areas

The Da Vinci InterOpathon Track principally covers the Payer Data Exchange and Clinical Data Exchange focus areas.

The test pits in Interoperability Land are populated with data used to determine whether HEDIS/STARS Quality of Care metrics have been met.

Quality Improvement

Clinical Data Exchange

Payer Data Exchange

Data Exchange for Quality Measures

Clinical Data Exchange

Process Improvement

Use Case HL7 Standards Progress

■	Published
■	Balloting
■	Build
■	Future
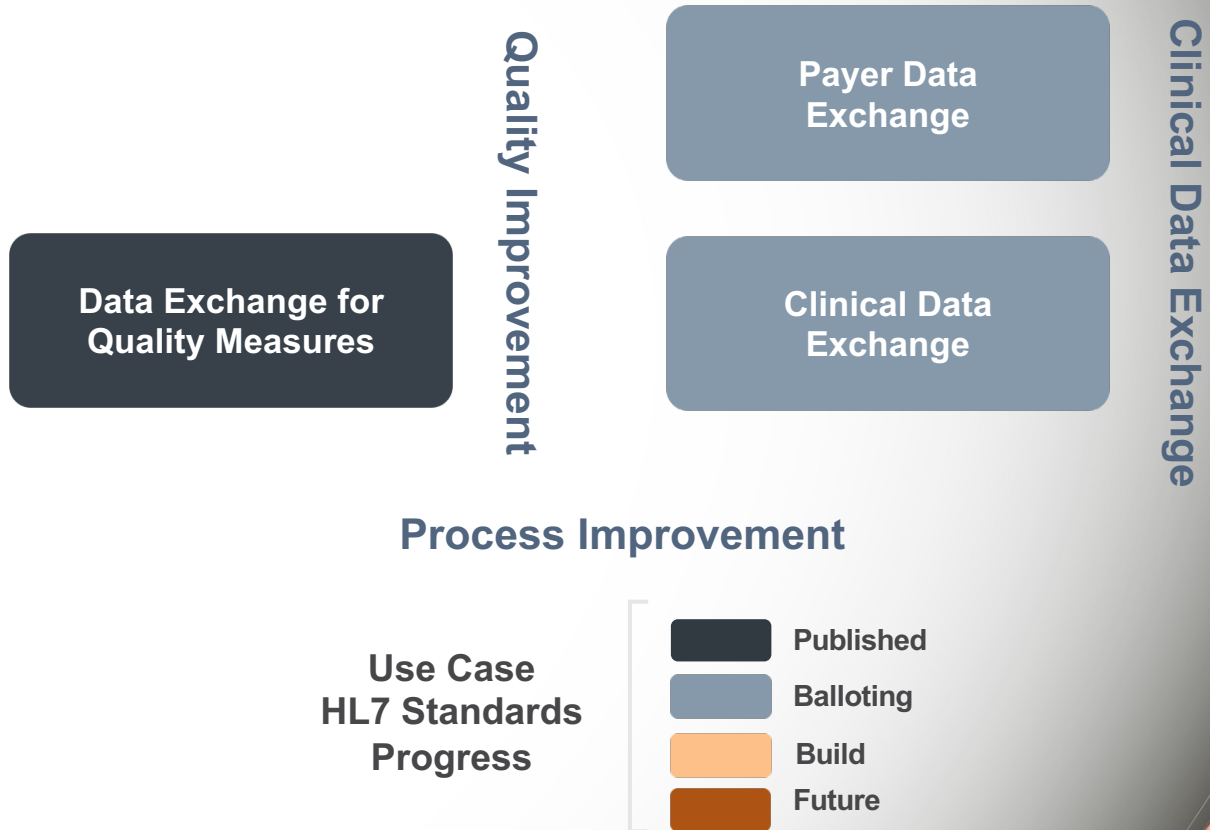
Data Model Overview
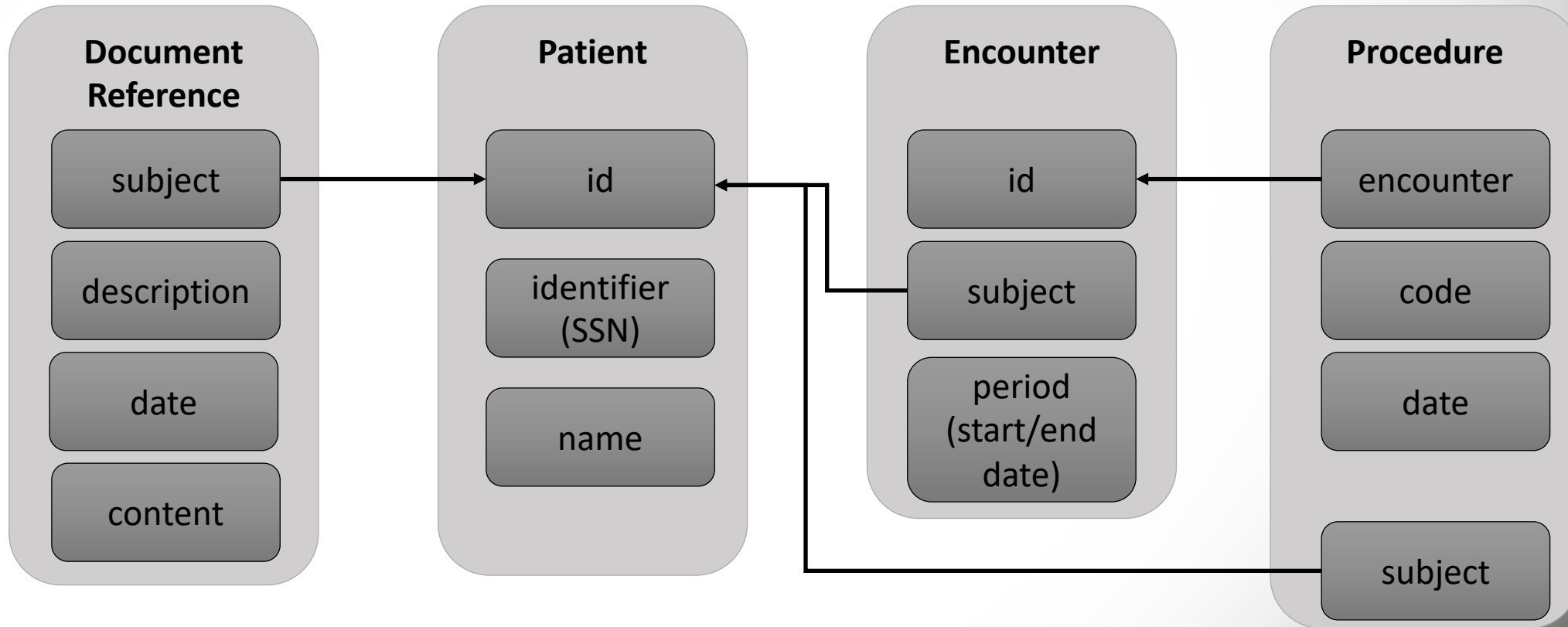
Event Overview

- Participants in the Da Vinci track will be focusing their efforts at the InterOpathon on trying to solve problems within the CDex problem space, while utilizing InteroperabilityLand's test FHIR resources.
- Become familiar with FHIR resources
- Become familiar with how FHIR resources are linked together
- Discover how to build apps in the Da Vinci CDex problem space
    - Payor data exchange needs
    - Provider data exchange needs
    - How to transfer and represent data

Communication Model

Can you let us know if you measured blood pressure for patient x on this date?

Payor's Computer

Provider's Computer
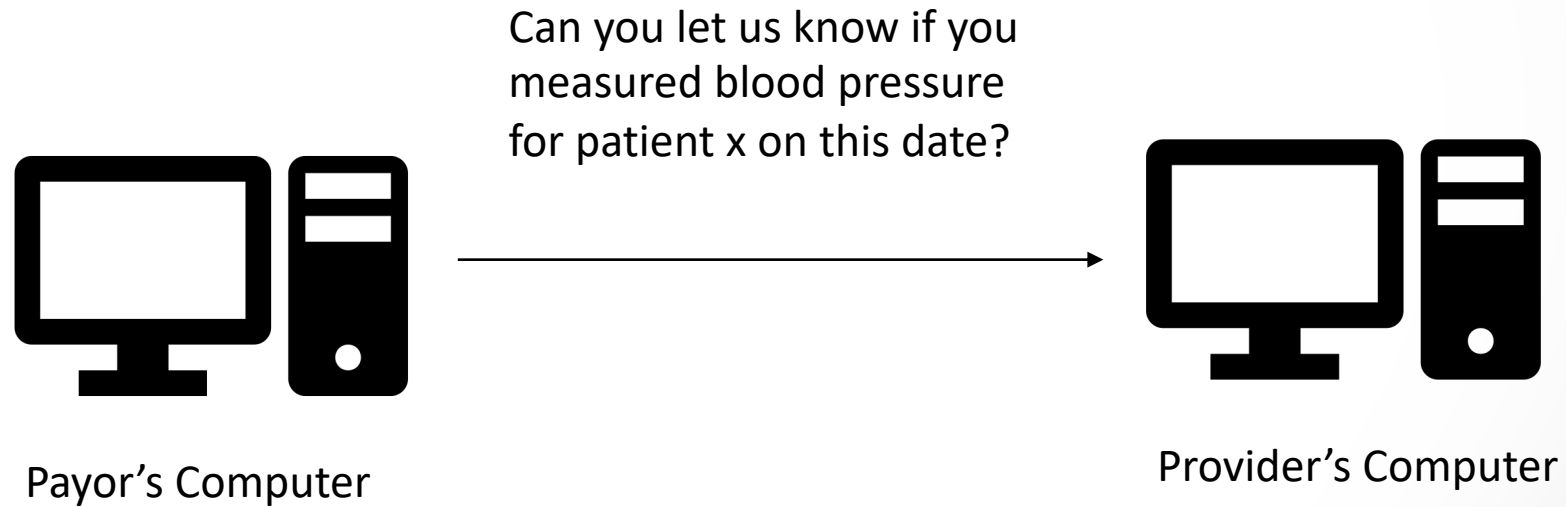
How to structure this request?

Gravity-Social Determinants of Health (SDOH)

Gravity – Social Determinants of Health

James Folkerth

Senior Software Engineer – Interoperability Institute

Gravity Use Case Overview
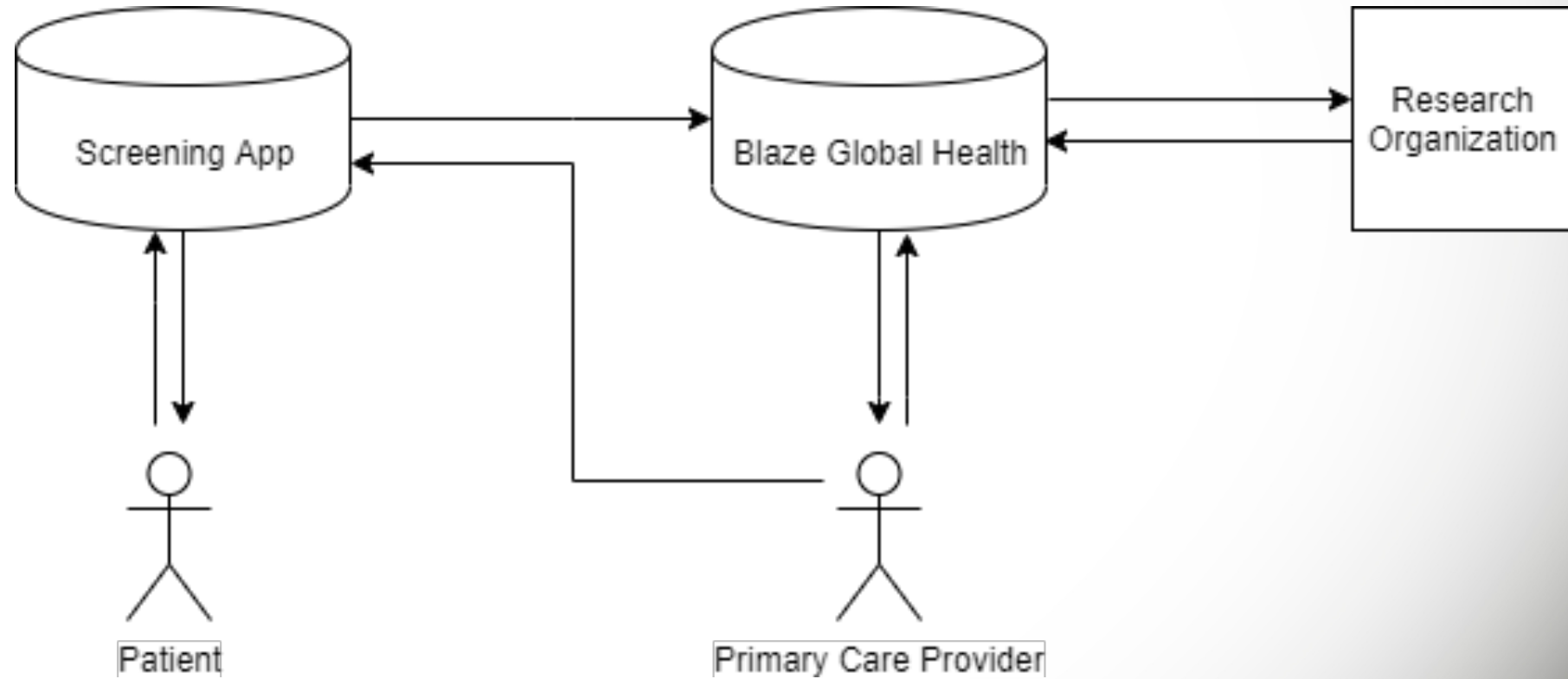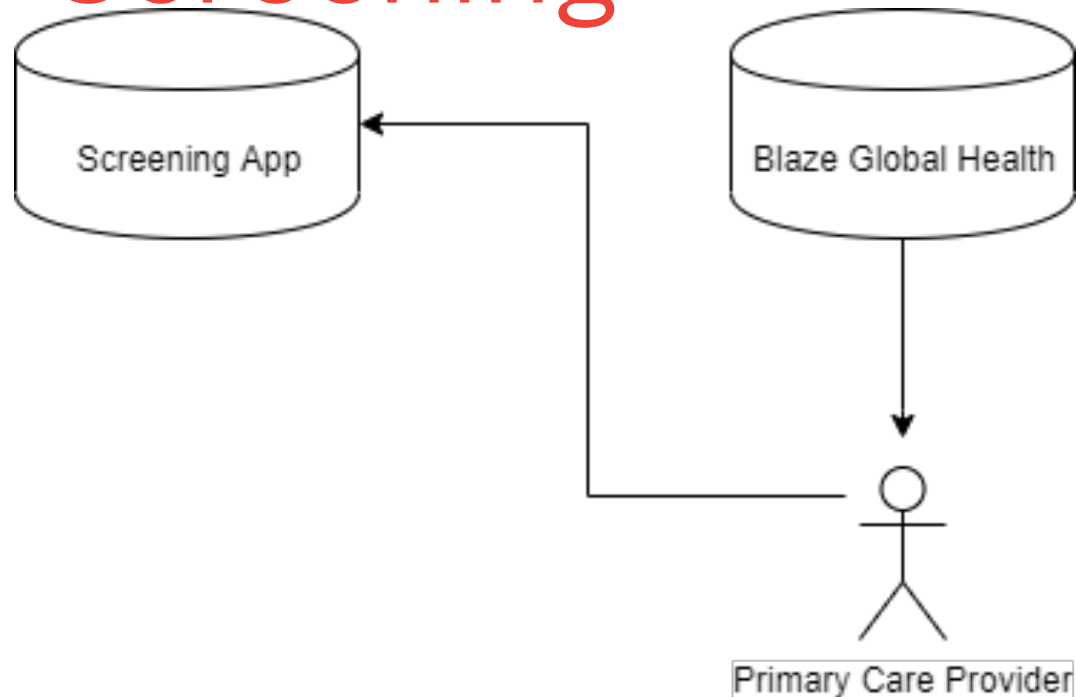
Scenario 2: Administering a Questionnaire
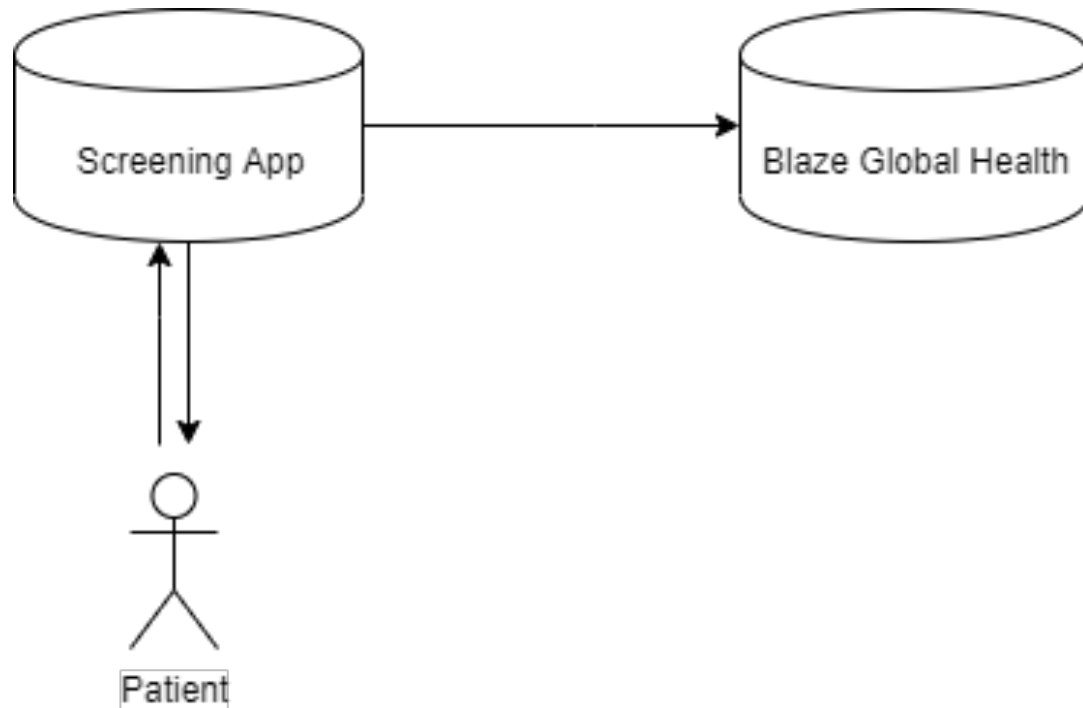
- Screening application administers questionnaire
  - *Resources: Questionnaire, Consent*
- Screening application updates PCP EHR
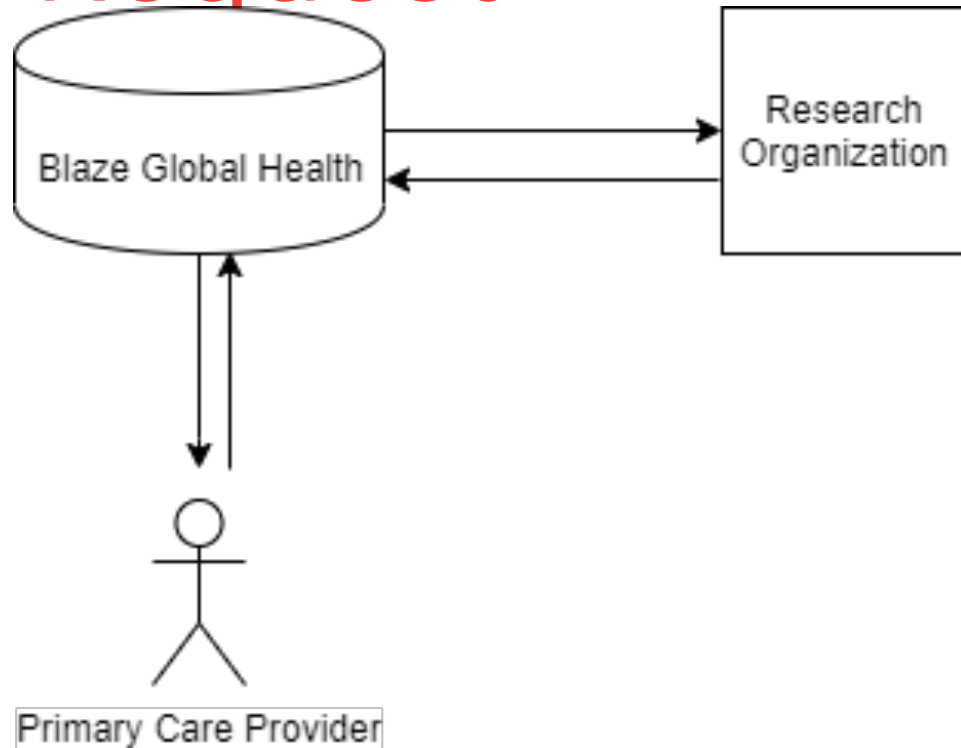 - *Resources: Questionnaire, Consent*

Scenario 2 Support: Data Generators
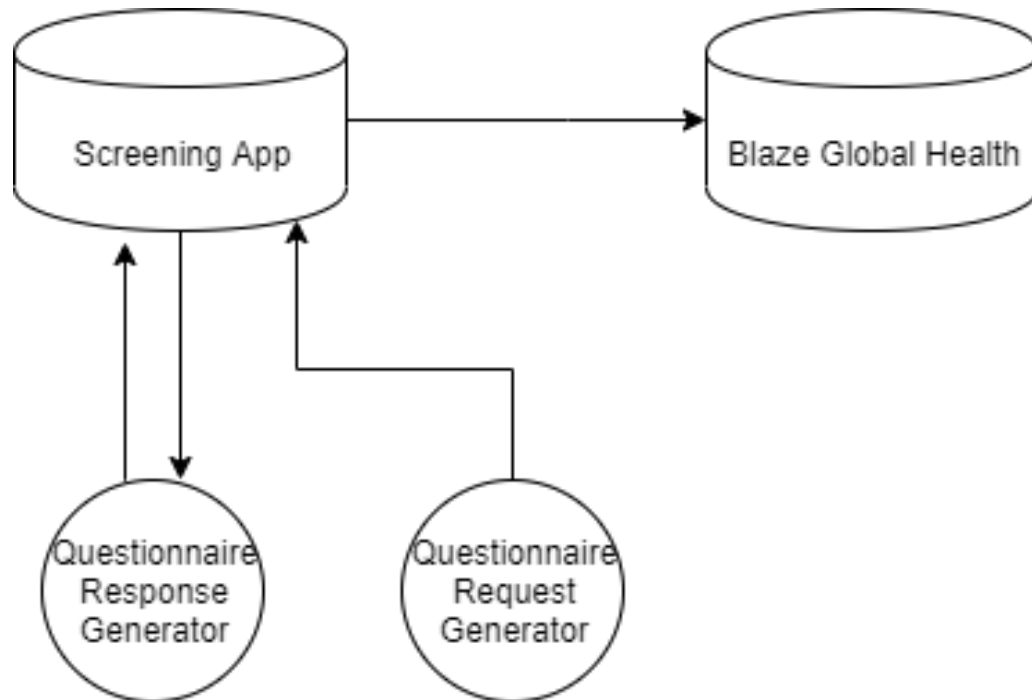
- Questionnaire Request Generator
  - *Resources: Questionnaire, List*
- Questionnaire Response Generator
  - *Resources: Questionnaire Response, Consent*

Scenario 3: Responding to a Research Request

- Research organization submits request
  - *Resources: Communication Request*
- PCP reviews request and patient consent
  - *Resources: Communication Request, Consent, Questionnaire Response*
- PCP EHR responds to research organization
  - *Resources: Communication Response, Questionnaire Response*
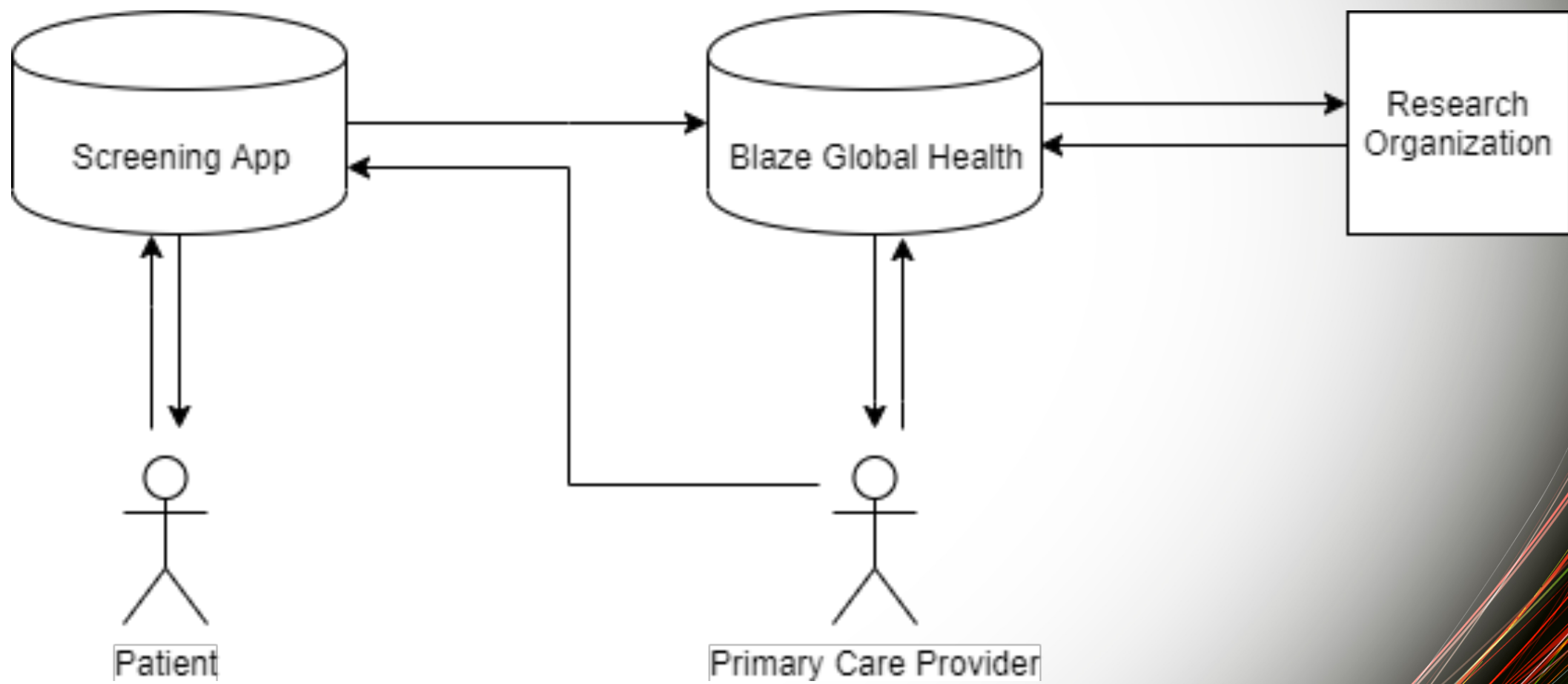
#InterOpathon

Scenario 3 Support: Data Generators
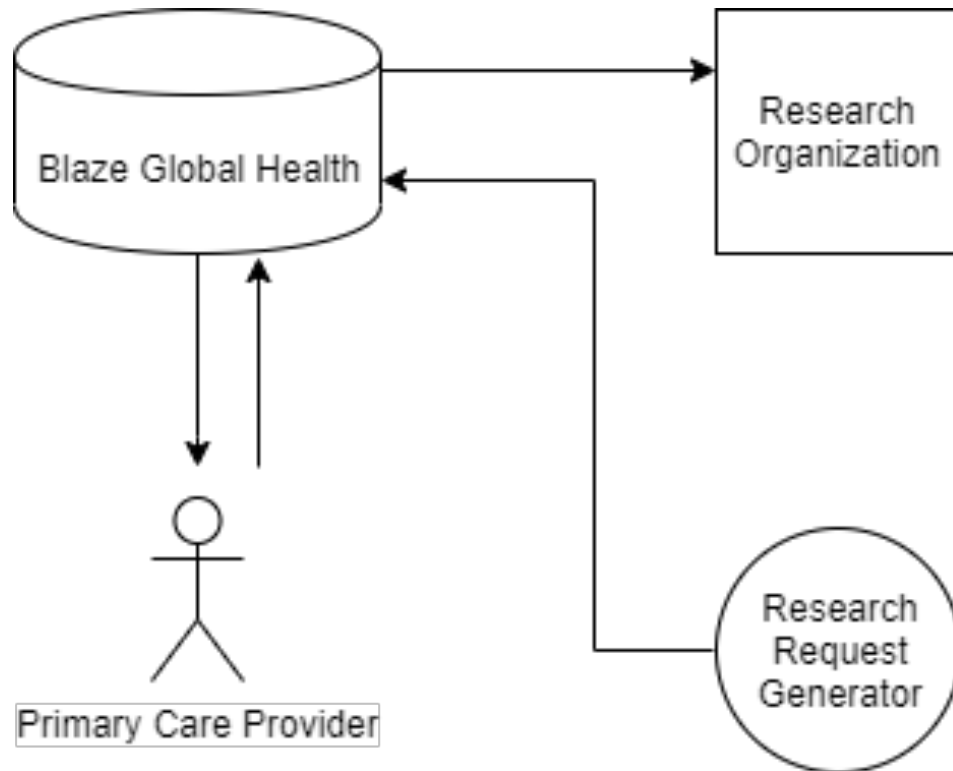
- Research request generator
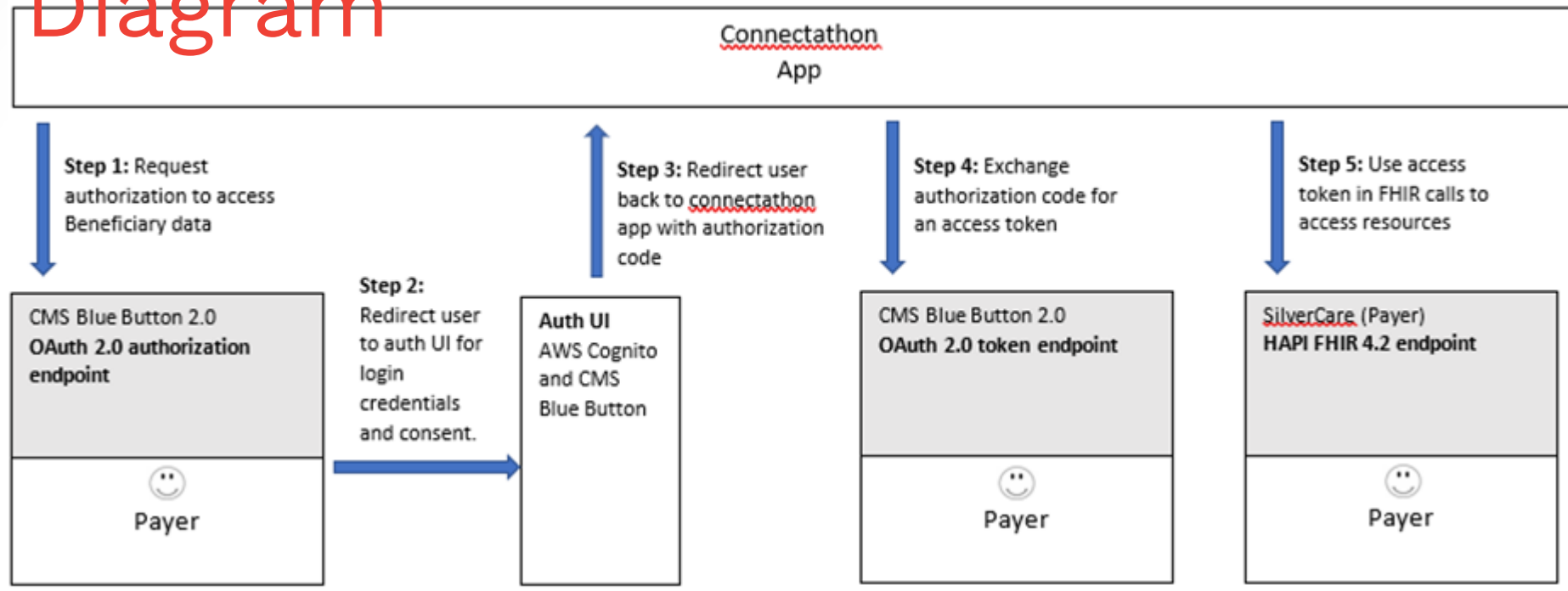 - *Resources: Communication Request*

CMS BlueButton 2.0 Architecture Diagram

Questions?

Thank you!

Please join us for next week's webinar including on Event Sponsors and APIs!

Thursday, May 21st from 12-1:30 PM EST

For help please contact events@interoperabilityinstitute.org