

NCPI Systems Interoperation Working Group - Agenda & Notes

**File location:** [Google Drive](#)

**Who:** Please contact Teresa Barsanti <[teresa@nimbusinformatics.com](mailto:teresa@nimbusinformatics.com)> if you do not have a calendar invite, or Jack DiGiovanna <[jjack@sevenbridges.com](mailto:jack@sevenbridges.com)> and Brian O'Connor <[bocConnor@nimbusinformatics.com](mailto:bocConnor@nimbusinformatics.com)> with any additional questions.

## **What:** NCPI Systems Interoperation Working Group call to coordinate across NIH IC Stacks

**When: Schedule** - Every other Friday alternating between @8am Pacific Time and @12pm Pacific Time → unless noted otherwise

**Where:** Hangouts: <https://meet.google.com/grh-oxfb-tee>

### ***Important Docs/Links:***

*See Google Drive folder above*

- [NIH Systems Interoperation Working Group - Charter](#)
  - [NIH Systems Interoperation Working Group - Agenda & Notes \(this document\)](#)
  - Google form for officially joining the group: <https://forms.gle/yJYV1wBbbXAuM4rU9>
  - [201910 - NIH Cloud Platform Interop Meeting - Next Steps](#)
  - [DRAFT Workshop Report NIH Workshop on Cloud-Based Platforms Interoperability](#)
  - [NIH Systems Interoperation Working Group - Technical Plan](#)
  - Use Cases

**---Newest meeting on top---**

# TEMPLATE <DATE>

Agenda Item	Action Items	Owner
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<b>Introduction and agenda overview</b>	•	Brian/Jack - 5 min
•	•	

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## Upcoming Agenda Topics

Please add upcoming agenda topic ideas here.

Date	Agenda Topic	Who
Recurring	<b>Overall Standing Items</b> • TBD	

2023-10-06

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	<ul style="list-style-type: none"><li>• </li></ul>	Brian/Jack - 5 min
<b>Ideation on 2024 focus areas</b>	<ul style="list-style-type: none"><li>• See our <a href="#">EasyRetro</a>, we added 1) items, 2) comments, and 3) we voted on priority. <b>Today we'll try to sequence out the topics over time (H1 2024, etc)</b></li><li>• See <a href="#">roadmap draft</a></li></ul>	<ul style="list-style-type: none"><li>• Teams send out request to join NCPI, Jack/Brian to send summary to mailing list</li><li>• Can we update the charter to make sure responsibility is clear?</li><li>• Invite ACC to the next call</li></ul>
<b>Ideas about running this group</b>	<ul style="list-style-type: none"><li>• Establish a rotation of topic (invite people ahead of time)</li><li>• Invite RAS and other team members into the appropriate call based on agenda topics</li><li>• Let's set the rotation once we finish our EasyRetro...</li></ul>	<ul style="list-style-type: none"><li>• </li></ul>

## Notes

- 2024 focus areas

- We discussed the roadmap draft
  - We discussed adding people to the call, how to get more involvement by people that have a need to attend
  - *Goal, send roadmap doc more widely around, request help/attendance from NCPI systems.*
  - *Goal Update charter.*
  - Sys interop as forum for ACC NCPI projects to discuss their work? Can that be a function as well.
  - Running this meeting
    - Upcoming topics
      - Next call, let's invite ACC to help with framing our work
      - Send roadmap for feedback

2023-09-08

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b> <ul style="list-style-type: none"><li>• Last time (<a href="#">8/25</a>) multiple teams shared info on their <a href="#">funded efforts</a> and what they need NCPI Sys Interop to work on in 2024 to support that work</li><li>• Total we'll finish the round-robin</li></ul>	<ul style="list-style-type: none"><li>• </li></ul>	Brian/Jack - 5 min
<b>Round-robin of funded efforts</b> <ul style="list-style-type: none"><li>• BDC</li><li>• <i>Any others?</i></li></ul>	<ul style="list-style-type: none"><li>• See our <a href="#">EasyRetro</a>, we need to 1) add, 2) comment, and 3) vote on priority.</li></ul>	Group - remaining time

	<p>to sequence out the topics over time (H1 2024, etc)... <b>Teresa and Brian</b> to send this to the list/key stakeholders</p>	
<b>Upcoming meeting agendas:</b>	<ul style="list-style-type: none"> <li>● <b>9/22 - GA4GH meeting San Francisco,</b> NCPI Sys Interop <u>meeting is canceled</u> (last day to <u>register</u> is today!!)</li> <li>● <b>10/6</b> - what does NCPI Sys Interop focus on in Q4 2023, H1 2024? Key standards, conventions, agreements. Where do we need help from NCPI ACC, GA4GH, etc?  <i>Goal is to use the above to create an updated charter with goals clearly defined, who's interested in working on what, when do we need these done by and then send that to the wider community for comment as an RFC. We'll use a <u>EasyRetro</u> or similar to capture ideas/priorities (see historic <u>EasyRetro from 2021</u>).</i></li> </ul>	

#### Notes:

- Add [bheavner@uw.edu](mailto:bheavner@uw.edu) to meeting series
- Jessica Lyons & Ben H
  - BDC is resubmitting the application now... see below "Ben - data discovery API across systems that don't require auth... "what are the studies you are hosting, for the study, give me the data dictionary".
    - Which part of this is done in this group? The search group?
- Priorities discussion
  - Michael B, Ian, David – RAS and best practices... just works
  - Ian - auth for different things (e.g. compute, FHIR)
  - Ben - what about other interop...
  - Michael - RAS important, but we'll work on other items too
  - Ian - RAS implementation was ACC goal
  - Ian - moving away from dbGaP authorization whitelists... moving to a service

- Ben - data discovery API across systems that don't require auth... "what are the studies you are hosting, for the study, give me the data dictionary".
  - Michael/Ian - what about DRS 1.4 / ops support in systems?
    - Ben points out use case of IGV as why you would want this. (see also: <https://github.com/igvteam/igv/issues/1377> )
  - See our [EasyRetro](#), we need to 1) add, 2) comment, and 3) vote on priority. Next time we'll try to sequence out the topics over time (H1 2024, etc)
  - Ideas about running this group
    - Rotation of topic
    - Invite RAS and other team members into the appropriate call based on topic
    - Let's set the rotation once we finish our EasyRetro.

2023-08-25

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	•	Brian/Jack - 5 min
<b>NCPI system update round-robin:</b> <ul data-bbox="241 1607 830 1744" style="list-style-type: none"><li data-bbox="241 1607 830 1685">Last time (<a href="#">5/19</a>), we looked at the common systems interop themes in the submitted proposals.</li><li data-bbox="241 1704 830 1744">We now have multiple groups funded via the NCPI <a href="#">May 15th RFP</a></li></ul>	•	Group - 45 min

<ul style="list-style-type: none"> <li>Let's share overviews of our funded proposals!! And see how we align the work of this group (<a href="#">Sys Interop's Charter Draft</a>) to these.</li> </ul>		
<b>Upcoming meeting agendas:</b> <ul style="list-style-type: none"> <li>9/8 - continue round-robin of funded efforts</li> <li>9/22 - what does NCPI Sys Interop focus on in Q4 2023, H1 2024? Key standards, conventions, agreements. Where do we need help from NCPI ACC, GA4GH, etc?</li> </ul>		
<b>Meeting reboot</b> <ul style="list-style-type: none"> <li>New calendar series coming <ul style="list-style-type: none"> <li>Everyone in attendance today will be added automatically</li> <li><a href="#">Link to calendar invite request</a> for those not in attendance (or slack channel?)</li> </ul> </li> <li>Please share link instead of sharing the calendar invite or send them to Teresa Barsanti <ul style="list-style-type: none"> <li>Shared links cause issues with people receiving meeting notices or changes</li> </ul> </li> </ul>		5 min

- David - Broad
  - [Passports/Compliance](#) (policy communication)
  - All systems meet the same security standards
  - Data access is sound
  - [Interconnection agreements](#)... have to do these individual agreements... it's all the same systems... can we have a standard template
- Michael B - Broad
  - [PFB handoff](#), need to have metadata for access controls to be included... study ID and consent codes.
  - [DRS metadata](#) data access metrics
- Ian Fore
  - NCPI FHIR Service on dbGaP
    - [Passport](#) too big for header
    - Task Specific Token was necessary
    - Token exchange is official way to do this via GA4GH

- How does RAS provide this to others?
- File IDs mapping to SRA IDs
  - Accessions that change over time
- Allison Heath
  - Our project with dbGaP and ImmPort primarily focused on FHIR interop was funded, and then our project with AnVIL which has a sys interop and FHIR aspects was funded (or at least we've received email saying as such - still waiting on the official award).
  - Each one has two scientific use cases and funded researchers to participate
  - Questions about **RAS login... account linking...**
  - Two funded
    - ImmPort project: FHIR representation, used to bring data into Cavatica... extension of UDN work for the genomics/phenotypic side... analysis across UDN and Kids First
      - Pediatric Asthma... kids first and dbGaP use case... UCSF
    - AnVIL project: Terra and Cavatica Interop... some FHIR for cross indexing across portals.
  - Others she's aware of... **functional equivalence of data...** not sure if it's here or not
- Michele - Velsera
  - Metadata increasing for researchers... difficult to predict
  - **DRS specification...** adding metadata pointing out to other metadata resources e.g. FHIR etc. Dictionary in DRS for example
  - Need to be able to move back and forth in the handoff process
- Michael B and Michele... both bring up bi-directional data flow in handoff/DRS... e.g. being able to get more data about a DRS object. Being able to report back usage metrics on data use.
  - Standards to 1) carry study information in DRS, which consent group and 2) link metadata to DRS, 3) standard endpoint for **metrics from a DRS server**
  - **Metrics capturing**
- Michele - Velsera
  - Algo portability... WDL application from Terra into Velsera
  - Study port to CWL
  - Will see if this needs any new standards/conventions.
  - inputs/outputs in the same object... BioCompute... maybe related to metrics above
  - Checking output is the same
- Alex - U. Chicago
  - +1 to above
  - **Mechanism to the handoff...** need to handle multiple models...
  - Metrics around data access
- Michael - Broad
  - Cost tiers in DRS... cold storage... spec feedback and implementation

- DRS 1.4, 1.5
  - Next time... we'll talk about BDC proposal

2023-05-19



Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	•	Brian/Jack - 5 min

<p><b>Post NCPI Proposal Submission Discussion</b></p> <ul style="list-style-type: none"> <li>• <i>NCPI proposals went in on 5/15, congratulations!!</i></li> <li>• <i>Post submission. Let's share overviews of our proposals!! And align the <a href="#">Sys Interop's Charter Draft</a> to these. A chance for us to look for concrete collaboration opportunities and common themes!! Likely important for the OTA process.</i></li> </ul>	<ul style="list-style-type: none"> <li>• </li> </ul>	Group - 45 min
<p><b>Next meeting topic</b></p> <ul style="list-style-type: none"> <li>• <b>6/2 - Finalize charter, work with ACC</b></li> <li>• <b>Beyond - NCPI system update round-robin:</b> a chance for systems involved in NCPI to share an update of their interop progress and vision for 2023 and beyond</li> </ul>	<ul style="list-style-type: none"> <li>• </li> </ul>	

**Notes:**

- Challenges
  - LOI uncertainty on feedback
  - Timeline
  - NCPI... two systems and a PI
  - New systems didn't join
  - General recognition not a smooth process
- Ideas/Proposals
  - Mike B. Track data across the ecosystem
    - Tracking handoff and auth needed
    - **More consistency in input/APIs for interop... maybe standards there?**
    - Compute to the data... this is an area of growth **Cost controls and decision making**
    - Things like **metadata in DRS** for making better decisions
    - **Minimal metadata between systems for handing data between, auth for example**
  - Velsera - Surya S.
    - AnVIL/Cavatica
      - Leveraging DRS and FHIR
      - Search for data and get it into workspace of choice... AnVIL or Cavatica
      - Broad standing up FHIR service

- Data explorer via UCSC team
  - Areas of work for Sys Interop: **Algorithm portability, Handoff between systems, focus on scientific use cases**
- Mike S./Velsera
  - T2T workflows
  - Bringing those to CGC
  - Areas of work for Sys Interop: **Algorithm portability, Handoff between systems,**
  - Sharing of results back
  - Noted the funding is actually small, need to take POC to other projects
- BDC/Tim
  - RTI folks looking at FHIR and cohort building via FHIR ... are the queries reliable? Consistent? Maybe extend the FHIR schema in the FHIR working group
  - What PICSURE does via FHIR
  - PCGC datasets split between Kids First and BDC
  - **Handoff between systems, Discovery/query of data**
  - **So look at how that data referenced with FHIR uses DRS URIs and minimal metadata for systems that consume it**
- Jessica: AnVIL, Doug, and BDC
  - Trans NCPI discovery API
  - Pilot to search across the platforms
  - Combination of semantic search (Doug), PICSURE, AnVIL
  - Pilot API with standards to allow systems to talk to each other
  - GWAS example, find related variants on AnVIL
  - **Discovery/query of data**
  - Search working group
  - Landscape analysis of APIs ... need input
  - Simple consistent API for study data ... also variant search (could look at Beacon standard for example)
- ...
  - Next steps/Conversation
    - How do we highlight the 1) scientific use cases and 2) tech improvements?
      - Can we get help from ACC on this?
      - Open science? Dedicated space for them to discuss?
      - Once awards go out, have a conversation with researchers... Also ACC should help here
    - How to bring new NCPI groups into the fold? Jessica
      - Sys Interop put out some criteria
      - But no way for new groups to "sign up"
    - Methods vs. results - Surya

- Where were you blocked? How did Sys Interop unblock your analysis step?
  - Can we get this info and focus on that, would be able to avoid question of scientific sharing early
  - Setting expectations on mechanics/tech not science worked/didn't work  
–Michael
  - Things we build? Or opportunities presented by researchers solving their own problem? Both ... want best practices that we can pass along
  - How do we, in Sys Interop, work on the right things at the right times?
    - ...
  - What's left behind? Or not covered
    - **Policy communication, Standards use, compliance, and verification, Passports**
    - ...

## Action Items

- Ask ACC, how are systems brought into NCPI?
  - Ask ACC, how do researcher use cases get tracked?
  - Schedule of what we work on when... put together a strawperson on what this team does ... order to work... teams can comment... we can likely cancel and drop down to monthly calls until everyone is awarded
    - July 3rd BDC driver project
    - mid-July proposals here

2023-04-21

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b> <ul style="list-style-type: none"><li>• <a href="#">Slides</a> from last time for reference</li></ul>	•	Brian/Jack - 5 min

<ul style="list-style-type: none"> <li>General NCPI Sys Interop goals for 2023 and beyond, drafting <a href="#">here</a> for reference</li> </ul>		
<b>NCPI Funding Opportunity Reminder</b> <ul style="list-style-type: none"> <li>See <a href="#">below</a> for the funding opportunity announcement details</li> <li><a href="mailto:ncpi-acc-info@rti.org">ncpi-acc-info@rti.org</a> for questions</li> <li><b>Proposal Questions Due Date: Monday, May 1</b></li> <li><b>Proposal Due Date: Monday, May 15</b></li> <li><b>Direct costs of \$500K or less per year</b></li> </ul>	•	Brian / 5 min
<b>Proposal Aims Open Discussion</b> <ul style="list-style-type: none"> <li>Cooperation, not competition, is key for interoperability... You can't compete on interoperability –Allison</li> <li>Collaborate on standards, compete on implementations... –Bob G.</li> <li>So... what teams would like to share some broad brushstrokes from their proposals? <ul style="list-style-type: none"> <li>Anyone still looking for researcher partners?</li> <li>Anyone still looking for LOSs?</li> <li>Anyone see opportunities to cross-reference in your proposals?</li> </ul> </li> </ul>		Group / 45 min
<b>Next meeting topic</b> <ul style="list-style-type: none"> <li><i>5/5 - Last minute call for proposal LOSs or cross references. Could cancel if teams are busy. → Yes we will cancel</i></li> <li><i>5/19 - Post submission. Let's share overviews of our proposals!! And align the <a href="#">Sys Interop's Charter Draft</a> to these. A chance for us to look for concrete collaboration opportunities and common themes!! Likely important for the OTA process.</i></li> </ul>		Brian/Jack / 5 min

### Notes:

#### **Proposal Aims Open Discussion**

- Allison
  - These are things we're already doing

- Let's write it down
- Partner with researchers... support them in their work...
- We ended early, will pick up on 5/19 post proposal submission.

## **Background on NCPI Solicitation Announcement**

- Proposal Questions Due Date: Monday, May 1, 2023 by 5:00 PM local time of applicant organization.
- **Proposal Due Date: Monday, May 15, 2023** by 5:00 PM local time of applicant organization.
- Late submissions to this ROA will not be accepted.
- Earliest Start Date: July 31, 2023

Hello,

The NIH Cloud Platform Interoperability (NCPI) Administrative Coordinating Center wishes to inform you of an update to the NCPI Solicitation Announcement. This update has been made to clarify the budget expectations for interoperability project solicitations. The updated Solicitation Announcement can be found here:

[https://anvilproject.org/54bc3e78d163fcf14db492fb4486b571/20230328\\_2023\\_InteropProjects\\_Solicitation\\_v5.pdf](https://anvilproject.org/54bc3e78d163fcf14db492fb4486b571/20230328_2023_InteropProjects_Solicitation_v5.pdf)

The specific update was made on page 4 Budget, first bullet (bolded text below indicates changes made):

- Proposals are expected but not required to have total direct costs of \$500K or less **per year**, not including requests for cloud credits. Requested budgets above \$500K **per year** should be commensurate and justified by the number of participating platforms and the complexity of the proposed scope.

If you have any questions about this update or the solicitation request, please email the NCPI Administrative Coordinating Center at [ncpi-acc-info@rti.org](mailto:ncpi-acc-info@rti.org).

Thank you,  
Dean Jackman

2023-03-24

Objective	Working Group call	Time	Bi-weekly, Fridays alternating between 11am ET and 3pm ET
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Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b> <ul style="list-style-type: none"><li>• Welcome back!! Second meeting after our hiatus.</li><li>• <a href="#">Slides</a> from last time for reference</li></ul>	•	Brian/Jack - 5 min
<b>Continue strategy discussion for 2023 and beyond</b> <ul style="list-style-type: none"><li>• What is important to you for NCPI Sys Interop in 2023-2024?</li><li>• <i>Round robin for those that didn't attend last time</i></li></ul>	•	group
<b>Updating our team charter for 2023 and beyond</b> <ul style="list-style-type: none"><li>• Much depends on who's funded for what...</li><li>• <i>General trends for 2023 and beyond, drafting <a href="#">here</a></i></li></ul>	<b>• Group - Incorporate into a revised charter, RFC over the coming weeks</b>	group
<b>NCPI Funding Opportunity</b> <ul style="list-style-type: none"><li>• See <a href="#">below</a> for the funding opportunity announcement details</li><li>• <a href="mailto:ncpi-acc-info@rti.org">ncpi-acc-info@rti.org</a> for questions</li><li>• LOI due April 3rd (optional)</li><li>• <i>Are folks on the call looking for partners for technical work or researcher use cases?</i></li></ul>		group
<b>Next meeting topic</b> <ul style="list-style-type: none"><li>• <i>4/7 - opportunity for groups to share their tech interop system status. Charter feedback opportunity too.</i></li></ul>		Brian/Jack

### Notes:

- Feedback on goals for 2023
  - Jack
    - Algorithm moving to the data
    - Could be simple... sending algorithms... ephemeral workspaces...
    - Could be homomorphic encryption... David B points out the Broad... an active area of work that AoU, NHLBI, NHGRI are interested in
  - David Bernick
    - Inbetween
    - Handing off data, handing off passports
    - "This group should focus on the arrows"
    - Policy aspect of the arrows between systems... when is it allowed
    - We need to figure out when it's Sys Interop vs. Governance in NCPI.
    - Objects need policies... what can a user do? And where? Tool restrictions? Who gets to set this on objects. Usage of data which includes data security.
  - Ian
    - Steering committee topic
    - Some technical proposals coming in
    - Need user docs so others can take advantage of the interop that's been worked on
    - Use of FASP scripts (for example), it can be adapted and used for many use cases. Key is documenting use cases so others can do it
    - We need to work with the outreach working group in NCPI (Stephen M)
    - We can make raw materials in Sys Interop... making them available widely outreach team
    - The other passport area that hasn't had its tires kicked probably yet is for access to resources other than data. e.g. for compute. There's also a case where FHIR requires authorization not only for data, but also authorization to submit requests at a particular rate. There are tiers for this. A single dbGaP FHIR request currently has to use two different authorization protocols for these purposes. Passport could make it one.
      - Authorization provider is different
  - Binam
    - DRS, RAS, authN/Z... would like to see more work done on RAS
    - A lot of things have been built up ... more deep
    - Polish what we have
    - Multiple passport brokers... CRDC for example, has non-dbGaP data
  - Jared → Surya
    - non-dbGaP data is a use case that has come up often
    - How to handle those passports and visas at scale is a concern
    - Scalability of DRS... as we scale up we need to work on things like imaging... millions of DRS objects

- How to work on sending these complex manifests around for example ("bundle")
  - Multi-modal analysis is the future ...
  - Use cases exist today... if we don't move quickly enough, we will have ad hoc extensions
  - Michael L.
    - maybe my mic wasn't working. I was just going to echo what Binam and Surya were saying. Scaling and batch are going to be very important
  - Radhika
    - +1 to what Alex covered last time
    - PFB tooling.. Handoff... other standards for transfer of data
    - Improvement of tooling
    - Search aspec
  - Jonas
    - API ecosystems with OAuth2 scoping of governance
    - Move past GraphQL
  -

2023-03-10

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b> <ul data-bbox="313 1733 567 1767" style="list-style-type: none"><li data-bbox="313 1733 567 1767">• Welcome back after our hiatus!!</li></ul>	●	Brian/Jack - 5 min

<ul style="list-style-type: none"> <li>• <a href="#">Slides</a></li> </ul>		
<p><b>Strategy discussion for 2023 and the new NCPI Funding Opportunity</b></p> <ul style="list-style-type: none"> <li>• Where did we leave off?</li> <li>• Discussion of opportunities around <a href="#">NCPI Funding Opportunity</a> (please direct questions to ACC)</li> <li>• Reconciling technical opportunities with funded, researcher-focused proposals</li> </ul>	<ul style="list-style-type: none"> <li>• If you have questions about the awards send your questions to the email in the solicitation - there is a team that will be responding to those questions.</li> <li>• <b>AI: charter revision to make this clear ... work with the ACC on how information can flow to policy</b></li> </ul>	Group / 45 min
<p><b>Next meeting topic</b></p> <ul style="list-style-type: none"> <li>• <i>3/24 - last meeting before LOIs are due (4/3)</i></li> <li>• <i>4/7 - opportunity for groups to share their status</i></li> </ul>		

#### Background Info:

#### Refresh of where we left off as a working group:

□ 20230310 - Update to NCPI Sys Interop

#### Email from the NCPI ACC:

Hello,

We are pleased to alert you to the following funding opportunity for the next round of NCPI interoperability projects.

The schedule, details, and instructions for submitting proposals for NCPI interoperability projects are included herein as attachments.

The key dates for the proposal process are:

- **Publication date: March 3, 2023**
- **Letters of Intent (LOI) Due Date: Monday, April 3, 2023** by 5:00 PM local time of applicant organization.
- **Proposal Questions Due Date: Monday, May 1, 2023** by 5:00 PM local time of applicant organization.
- **Proposal Due Date: Monday, May 15, 2023** by 5:00 PM local time of applicant organization. Late submissions to this ROA will not be accepted.
- **Earliest Start Date: July 31, 2023**

If you have any questions about this solicitation request, please email the NCPI Administrative Coordinating Center at [ncpi-acc-info@rti.org](mailto:ncpi-acc-info@rti.org).

Thank you,  
Dean Jackman

**Dean Jackman, PMP, CSM**  
**NCPI ACC Project Manager**

RTI International | phone: 919 / 541-6145 | email: [djackman@rti.org](mailto:djackman@rti.org)  
| *he, him, his*

[2023\\_InteropProjectsSolicitation\\_v4](#)

[2023\\_NCPI\\_InteropProjects\\_CostProposalTemplate\\_v1.0](#)

**From Chat:**

- **Michael Baumann:** (RAS) Providing provenance information and tracking that across multisystem cloud-based data science.
  - This would support collaboration, publication, and reproducibility.
  - This is largely related to search and study data handoff.
- **Brian Walsh:** small idea: can we specify a use case that \_must\_ consume data from all participants. anvil, kf, nih, biodata catalyst, etc.
- **Ian Fore:** Filling in my comment a bit about Elixir and Alex's interest. The connection is with keeping the compute close to the data (local compute). That becomes a distributed compute - so one necessary part of it is to aggregate from the local computers.
- **Renan Martin:** What about to propose some universal mechanism to request access to datasets from different locations to the chosen cloud?

**Notes:**

- Ideas

- Michael B.
  - 1) Provenance tracking between systems ... one workflow on one system, on another, showing where data was processed
  - 2) Compute near the data... minimizing egress costs. Populating region information in DRS.
- Brian Walsh
  - can we specify a use case that must consume data from all participants. anvil, kf, nih, biodata catalyst, etc.
  - Would force several key issues
    - Move compute to data
    - Auth
- Ian Fore
  - See GIF in GA4GH
- Alex Vantol
  - +1 we have a lot of thing in place
  - **PFB tooling improvements, region information in DRS**
  - Cohort... we have a standard way of moving that around.
  - **But the discovery and query of the data...** that's an area of work.
  - Standards... look at Data Connect
- Renan Martin
  - **Requesting access from multiple places...** difficulty in getting access to data
- Asiyah Yu Lin
  - Next week, discuss this in the search working group
  - Crossover with FHIR working group
- Aarti Venkat (U. Chicago)
  - Many questions that cut across
  -  NCPI Systems Interoperation Working Group - Use Cases
  - What standards? **What Systems?** AnVIL, KF, BDCCat, CRDC
- Heidi Sofia
  - Data discovery... open global data citation... CZI, Embl-EBI, DataCite
  - <https://pidforum.org/t/building-the-open-global-data-citation-corpus/2405>
  - Based on DOIs
  - Look at opportunities there, linking DRS for example
- David Bernick
  - **How do we go from feedback to action?**
  - **AI: charter revision to make this clear ... work with the ACC on how information can flow to policy**
  - RAS centric... "NCPI has reached this conclusion"
- Ian
  - This group has looked at technical interoperability
  - We should look at policy issues around interoperability ...
  - Articulate what these policy challenges are

- So we need to identify issues, explain why it's important
- Interop project here in NCPI ... high level and enable multiple use cases
- Heidi Sofia
  - GA4GH as a driver project
  - Is the ACC coordinating?
  - Ask questions about this to Heidi
  - Asiyha... steering committee and ACC are working on this

2022-10-07

Objective	Working Group call	Time	Bi-weekly, Fridays alternating between 11am ET and 3pm ET
Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	3pm ET Meeting: <a href="https://meet.google.com/grh-oxfb-tee">https://meet.google.com/grh-oxfb-tee</a>  11am ET Meeting: <a href="https://meet.google.com/ccc-rhjb-fze">https://meet.google.com/ccc-rhjb-fze</a>
<b>Participants:</b> <b>SIGN IN: Name &amp; Affiliation</b>	Teresa Barsanti; ; ; Jared Rozowsky (Seven Bridges); ; ; Heidi Sofia (NIH); ; ; ; ; ; ; ; ; ; Tony Kirilusha (NIH); ; ; Radhika Reddy (UChicago) ; ; Alex VanTol (UChicago); Radu Robotin(NCI) ; ; ; Jessica Lyons (HMS) ; ; Michael Lukowski (U Chicago); ; Amanda Charbonneau (CDA) ; valentina di francesco (NIH) ; ; Michael Baumann (Broad); ; ; ; ; Surya Saha (SB); ; ; ; ; ; Eric Wenger (KF); ; Asiyah Yu Lin (NHGRI); ; ; ; ; Kurt Rodarmer (NCBI); ; ; ; ; ; ; Brian Walsh (OHSU);		

Agenda Item	Action Items	Owner
Introduction and agenda overview	•	Brian/Jack - 5 min
• CFDE Portal use case	•	Surya
• GA4GH Plenary review <ul style="list-style-type: none"> <li>○ See notes below...</li> </ul>	•	Brian

### Notes:

#### **CFDE Portal Use Case:**

- Manifest poster [Manifest-based DRS import: A practical solution for cross-DCC dataset analysis to empower translational discovery using Kids First and GTEx data](#)
- Michele's poster on DRS and FHIR [DRS and FHIR: integrating different standards to power complex scientific research in the INCLUDE DCC Project](#)
- Adam's video: <https://www.youtube.com/watch?v=DgFzssv1DKQ>

- From chat:
  - Asiyah Yu Lin - question(my mic doesn't work): who maintains the DRS file? can you show an example of using the FHIR server?
  - Asiyah Yu Lin - My question is more like who maintains DRS ID or server?
  - Brian Walsh - If it is useful, I have a mapping of "light model" to FHIR.  
<https://docs.google.com/document/d/1DLP33qRpsnMyuxBxwhyUvY7Pp88BEJq8si9ex5zBvls/edit?usp=sharing>
  - Asiyah Yu Lin - Yes. Wanted to bring up Ian's previous point that DRS format are different across the board.
  - Alexander Vantol - Are all the files streamed immediately into some workspace or are they "lazy loaded" as needed/used in a workflow?
  -

## GA4GH Plenary Review

- 9/21-23
- Agenda: <https://broadinstitute.swoogo.com/ga4gh-10th-plenary/agenda>
- Working Session agendas:  
<https://broadinstitute.swoogo.com/ga4gh-10th-plenary/working-sessions>
- There was a ton covered at the meeting!! Far too much for me to report back. But here are some highlights that I think are particularly relevant to our NCPI work:
  - "[The Future of FASP](#)":
    - FASP has been a sister effort to NCPI Sys Interop for years
    - FASP is going through a similar refocus to Sys Interop... moving away from "demos" → actual use
    - Reboot may look like:
      - User focused → part of FASP focusing on users using actual systems... think our user-driven use cases... a ton of cross pollination already thanks to Ian Fore!
      - Systems/implementers focused → GA4GH has developed 1) starter kit implementations and 2) test suites. These could evolve into a GA4GH compliance test which GA4GH has already put some effort into
    - Both efforts have a lot in common with what Sys Interop has worked on
    - Is there value in NCPI systems going through GA4GH compliance verification?
  - "[Cloud Work Stream](#)":
    - New versions of TES, WES, DRS, TRS all released or being released
    - DRS 1.3 → now-ish
      - How to auth to get a particular DRS object
    - DRS 1.4 → Connect meeting (Nov?)
      - How to scale with bundles
    - So a new DRS release would have a bit impact on most systems in NCPI!!
  - "Work Order Token for Passports v2.0"

- What happens after Passports?
  - How do you down-scope the all-powerful passport?
  - How do you secure compute in a particular environment?
  - Kurt R. with the NIH gave a great demo showing how this can work
  - Will want to follow this carefully and give feedback
  - dbGaP has developed this, docs are in progress
  - Really useful for legacy APIs that require header tokens (think FHIR)
  - FY23, expanding NCBI offerings to work with the token, stay tuned!
- Adoption of APIs
  - DRS → very popular in the US
    - From chat:
    - Surya: Since there is interest in metadata approaches - Here is Michele's Plenary poster on use of DRS and FHIR to pull in trisomy information for INCLUDE data  
[https://figshare.com/articles/poster/DRS\\_and\\_FHIR\\_integrating\\_different\\_standards\\_to\\_power\\_complex\\_scientific\\_research\\_in\\_the\\_INCLUDE\\_DC\\_C\\_Project/21266028](https://figshare.com/articles/poster/DRS_and_FHIR_integrating_different_standards_to_power_complex_scientific_research_in_the_INCLUDE_DC_C_Project/21266028)
  - WES/TES → very popular in Europe
  - How do we get more use of WES/TES in NCPI systems?
  - How do we help others with DRS?
- Distributed compute
  - H3Africa (eLwazi) is an NIH funded project
  - Can they join NCPI?
  - They are spearheading the adoption of cloud APIs within on prem HPC environments
  - They also presented a really interesting "federated imputation" use case
  - Is this a driver project for NCPI in the future? Is federated imputation the project that brings compute standards to NCPI? And solves researcher problems?
  - With ODSS supporting NCPI activities in the future, this could be a really interesting problem to rally around
- Driver Projects
  - GA4GH will soon be opening up to new driver projects. There are multiple NCPI systems (or NCPI as a whole) could apply. This is a great way to influence the standards!!
- Items folks found interesting:
  - Federated Imputation - Heidi
  - Starter kits w/ good security practices - Kurt
  - Cloud and HPC too... both supported - Kurt
  - Outreach, mapping content groups in dbGaP to DUO. Good agreement between systems. Planning on AnVIL to use DUO terms. - Valentina
  - Hackathon iROD for on prem with DRS, good outcome. Niki at H3Africa interested in this. A new board member - Heidi

2022-09-09

Objective	Working Group call	Time	Bi-weekly, Fridays alternating between 11am ET and 3pm ET
Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	3pm ET Meeting: <a href="https://meet.google.com/grh-ox-fb-tee">https://meet.google.com/grh-ox-fb-tee</a>  11am ET Meeting: <a href="https://meet.google.com/ccc-rh-jb-fze">https://meet.google.com/ccc-rh-jb-fze</a>
<b>Participants:</b> <b>SIGN IN: Name &amp; Affiliation</b>	Teresa Barsanti; O'Connor ;Adam Resnick ;Asiyah Lin ;Heidi Sofia ;Ian Fore ;Jack DiGiovanna; Jared Rozowsky ; Valentina Di Francesco (NIH);Jean ;Michael Baumann ;Jared Rozowsky (Seven Bridges) ;Sam ; ;Radu Robotin(NCI) ; ; ; ; Bill Longabaugh (ISB); ; ; ; Mike Conway (NIEHS); ; ; ; ; ; ; ; ; Sam Pathak (Leidos); ; ; ; ; ; ; ; Michael Lukowski (U Chicago); Alex VanTol (UChicago); ; ; ; ; Jonas Almeida (NIH) ; Chris Kinsinger (NIH); ; ; ; ; Dave Rogers; ; ; ; ; ; ; ; ; ; ; ; ; Stephen Mosher (JHU) ; ; ; ; ; ; ; ; Binam Bajracharya(UChicago); ; ; ; ; ; ; ; ; ; ; ; ; Danielle Pillion (PIC-SURE); Becky Boyles (BDC/RTI)		

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	<ul style="list-style-type: none"> <li>•</li> </ul>	Brian/Jack - 5 min
<ul style="list-style-type: none"> <li>• GA4GH - what do we want topics do we want to have represented at GA4GH? <ul style="list-style-type: none"> <li>○ See Overall Agenda (9/22-23):  <a href="https://broadinstitute.swoogo.com/ga4gh-10th-plenary/agenda">https://broadinstitute.swoogo.com/ga4gh-10th-plenary/agenda</a> </li> <li>○ See Working session agenda (9/21):  <a href="https://broadinstitute.swoogo.com/ga4gh-10th-plenary/working-sessions">https://broadinstitute.swoogo.com/ga4gh-10th-plenary/working-sessions</a> <ul style="list-style-type: none"> <li>■ <a href="#">FASP</a></li> <li>■ <a href="#">Cloud</a></li> <li>■ Work Order Token for Passports 2.0</li> </ul> </li> <li>○</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>	
<ul style="list-style-type: none"> <li>• Report backs from champions to take to GA4GH</li> </ul>	<ul style="list-style-type: none"> <li>• For systems Table - see Michael Baumann comment in doc and</li> </ul>	

<ul style="list-style-type: none"> <li>○ <a href="#">Systems Table for NCPI</a> - Alex Vantol, Surya Saha, Michael Baumann</li> <li>○ <a href="#">AuthN/Z</a> - Kurt Rodarmer, Nicole Bolliger, Alex Baumann</li> <li>○ <a href="#">Data Sharing with DRS</a> - Brian O., Surya Saha (or Michele), Binam Bajracharya, Amanda Charbonneau</li> <li>○ <a href="#">Portal handoff to compute workspaces</a> - Michael Baumann, Alex Vantol, Brian Walsh, Michele</li> <li>○ <a href="#">Tutorials</a> - Nicole Bolliger, Jack D., Brian O., Anne Deslattes Mays</li> </ul>	<p><b>complete Checklist of Key Standards section</b></p> <ul style="list-style-type: none"> <li>● Kurt review AuthN/Z doc</li> <li>● Brian to work with Dave on getting general DRS information on website, work on a way to include table of info from DRS 1.1 transition doc into the NCPI website.</li> </ul>	
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### Notes:

- Feedback on Cloud
  - Jack - DRS
    - Bundles deprecation? What's the status? How does this relate to imaging data?
  - Kurt - DRS
    - Can't drop bundles right now... what's the alternative
  - Ian - DRS
    - Need to revisit how pieces come together to solve the need for bundles...
  - Adam - DRS
    - NCPI use cases for bundles... for imaging
  - Al: link out to the issues in the Cloud agenda
  - Adam - Beacon API for Kids First and others
    - → Search working group for NCPI
    - Something to discuss within NCPI search group
  - Brian - advertise our DRS servers? Best way to do that?
    - Plan for work order token and DRS?
    - When will the next DRS be released?
    - How do we advertise the available NCPI DRS resources?
    - How can NCPI leverage the DRS client/test suite from GA4GH?
    - What is the plan to maintain the GA4GH client/test suite?
- Feedback on FASP
  - Beacon and NCPI? Could cover it there.
  - Question of scalability
    - Use cases... NCPI and others... helpful
    - How do we scale so the use cases come out of the community and not just FASP/NCPI

- Want researchers to be able to use lego blocks... similar to what Anne and others are doing in the platform of their choice
  - FASP... not resourced as a help desk... but ways to enable people to help each other and themselves ...
    - Extending tutorials and examples
  - So common ground
    - Tutorials development
    - Use cases
    - Feedback on APIs
    - Possibly future interest in validation testing
  - Other GA4GH items
    - Beacon and Data Connect is an area of interest

2022-07-29

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	<ul style="list-style-type: none"><li>• </li></ul>	Brian/Jack - 5 min
<b>Content for the portal - checkin/sign off</b> <ul style="list-style-type: none"><li>• See below</li><li>• We'll check in with champions</li></ul>	<ul style="list-style-type: none"><li>• Get signoff from tagged contributors</li><li>• Hand to Stephen for portal</li></ul>	10 min
<b>Review of mission/roadmap</b>	<ul style="list-style-type: none"><li>• Add ideas to <a href="#">22-23</a></li></ul>	30 min

<ul style="list-style-type: none"> <li>Strategy and Purpose brainstorm (post NCPI meeting) What is our North Star, are we done, etc?</li> <li><a href="#">Charter</a> v2.0.0 from 2021 → need v3.0 charter</li> <li>See below</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">roadmap</a> and new charter</li> <li>Champions send tables of platform capabilities to Stephen Mosher (<a href="#">see here</a>)</li> <li>Champions review <a href="#">AuthZ/N Guide</a> and provide feedback/edit by next meeting</li> <li>Champions review <a href="#">DRS Guide</a></li> <li>Let's keep in mind the <a href="#">technologies guide</a> already listed on the site</li> <li>Jack list out tutorials that are on various sites and Stephen link them on the NCPI site</li> </ul>	
<p><b>Upcoming agenda backlog</b></p> <ul style="list-style-type: none"> <li>Next time, loop back on the content for the NCPI portal, work with Stephen to figure out where to populate the content in a Sys Interop more tech section.</li> <li>Brian Walsh could present on FHIR→PFB tooling he's written <ul style="list-style-type: none"> <li><a href="#"> pfb_fhir-bwalsh-june-2022.pdf</a></li> <li><a href="https://github.com/uc-cdis/pypfb#convert-json-for-corresponding-dictionary-to-pfb">https://github.com/uc-cdis/pypfb#convert-json-for-corresponding-dictionary-to-pfb</a></li> </ul> </li> <li>Regroup on DRS after GA4GH hackathon (DRS client changes based on Amanda's feedback)</li> <li>Review the update to the minimal data model, see survey results (<a href="#">admin interface</a>)</li> <li>•</li> <li>• <b>Other topics?</b></li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>	10 min

**Notes:**

## Content for Portal

Action Items from last meeting:

- Champions to provide guide content
- Ask NCPI portal admins (Dave Rogers) for next steps
- Asiyah Yu Lin will talk to Stephen about timeline for getting in the portal
- Teams please review the drafts of individual topics... see below.
- Add a portal platform intro paragraph

Idea is to host on the [NCPI website](#)

- [Systems table](#) and Sys Interop WG overview → Champion: Surya Saha (SBG), Alex (Gen3), Michael Baumann (Terra)
  - The systems of NCPI
  - What each system supports... how and where a new system can interoperate
  - Make it clear different profiles of systems coming into NCPI... e.g. data provider... and what they would need to support
  - Notes
    - Outreach working group has this as a starting point
    - Ask each platform to confirm
    - Asiyah will mention to Stephen and Dave!! Thanks!!
  - [Link to platforms currently involved in NCPI](#)
    - Do we want a standards table - showing what these systems can do?
      - Who supports DRS and what version
      - RAS passports
      - WES
      - Workflow languages supported
      - Cloud service providers
- [AuthZ/N](#) → Champion: Kurt Rodarmer, Nicole Bolliger, Alex Vantol
  - 
  - Overview of auth
  - What does RAS mean? SSO? AuthN? AuthZ? Understanding of what RAS provides
  - Point out RAS is a work in progress
  - Additional auth providers... for example Fence... give that context
    - IdP and potentially other Passport Brokers
  - Links to instructions on how to get access to RAS Box/GitHub
  - Links to RAS docs, look at the RAS developer guide
  - Sample code repo link
- [Data Sharing with DRS](#) → Champion: Brian O, Surya Saha (or Michele), Binam Bajracharya, Amanda Charbonneau, Michael Baumann
  - DRS 1.1 transition guide... move this to a public place

- Relationship with AuthN/Z... which servers require auth?
- [Portal handoff to compute workspaces](#) → Champion: Michael Baumann, Alex Vantol, Brian Walsh, Michele
  - Fields that need to be in the manifest
  - What formats are supported?
  - What are required
  - **Publish the minimal data model on the site**
    - Machine readable version too
    - Melissa Handle for example might have tooling
- [Tutorials](#) based on what was done for use cases → Champion: Nicole, Jack, Brian O, Anne Deslattes Mays,
  - Terra-based tutorial
  - Cavatica/SBG-based tutorial
  - [Elements of Style for workflow creation and maintenance on the INCLUDE](#)
  - Coming soon (Elements of Style for workflow creation and maintenance on Kids First – September - no difference really except that it will be highlighting the Kids First data sets)
  - Presentation given during the course – [Platforms as a Service](#) - motivating platforms.

## Review of Mission

Our last group [charter](#) is out of date and ended at Dec 2021

We just had the [NCPI meeting](#) June 22-23rd

The NCPI Admin Coordinating Center will be awarded soon and funding is likely to be available

Sys Interop has been a big part of the success of NCPI, what do we want/need to do next?

Ideas from the group (round robin):

- Alex
  - BDC, revamp the handoff mechanism using PFB... generalizing it even more. The way it's handed off currently is via signed URL. We could use DRS as a generalized handoff mechanism and that would allow PFB + other formats. Easier to add more platforms/people to interop.
  - Define terminology... "metadata", etc. BDC to publish this, would be useful for NCPI to be involved
- Amanda
  - Like to see more hardening of systems e.g. DRS. Making sure things work for most people not just some people.
  - Compliance test suite with GA4GH?

- Asiyah
  - +1 to Amanda
  - Use case... seen problems between AnVIL → SBG... plan to fix.
  - Are there any missing connections between platforms for DRS+PFB/TSV?
  - Make tools more easily usable for researchers... outreach group... more users using the platform
  - Data mesh
- Brian
  - Reporting back metrics of usage, quantify the impact
- Jack
  - Ecosystems we're working with is large... all of AnVIL, all of CRDC...
  - Setup users for success... building it iteratively
  - Maybe part of this is the NCPI data browser? Or a table?
  - Lean into tutorials
  - Getting information on how to do this in users hands, understanding of data
  - 3 major topics for Jack:
    - 1) ephemeral compute
    - 2) more success stories... CFDE for example (Surya)... more systems part of NCPI
    - 3) cohorts of info to workspaces... how do the workspaces call back to get more information. Not search/unified metadata model. How do we link/track provenance?
- Jay
  - Looking at pathways that generate feedback loop
  - For example, AoU collaboration → multiple publications!!!
  - What can sys interop do to support this? → meet people in the middle, expanding the community and awareness... bring more people in to the community
  - Generate and capture success stories
- Michele
  - 2 areas
    - 1) Discoverability space... search. Creating a way to export cohort, import into other systems. FHIR/PFB/manifest
    - 2) DRS links, be able to go back and get more metadata around a given DRS URI. E.g. in INCLUDE project wanted to tag t21 via mondo code. Didn't want to hand the data off initially, but wanted to get this info after handing off the DRS URI. Need an API response that can be resolved given a DRS URI.
  - Hardening the tech, foundation solid. Be able to promote. Test bed in GA4GH. But federated compute, need to have DRS respond with region/location information in a standardized way. Specification changes on DRS.
  - RAS + DRS... clinical metadata mediated by RAS. dbGaP FHIR server with RAS integration. Take a look at this. Integrate this with our use cases. See

FHIR workshop from NCPI... Kids First, dbGaP, FHIR servers. Differences in metadata for each system = challenges.

- Mike Conway
  - Environmental health data ecosystem
  - Working with external collaborators
  - How to get exposures into fold of the data under NIH
  - Working on the metadata side... DRS as well... how can NIGHS align infrastructure with other NIH ICs
  - Search and discovery are at the top of their agenda
  - Gen3 models for federated search
  - More detailed data models
  - Cloud controlling costs, who pays, etc. RAS discussions around this as well.
- Nicole
  - RAS milestone 4!!
  - New format of non-dbGap passports
- Stephen
  - Metrics on usage
  - Who are the researchers best ready to use the tech we're working on
  - What are people unable to do currently, set expectations, work on pain points
  - Data Mesh, how are we positioned here? How do we contribute?
- Surya
  - See Michele and Jack above
- Teresa
  - Will create a table
- Valentina
  - Admin Coordinating Center
  - Would like to have a solicitation for demo projects
  - Need to prioritize the above... start thinking about what of the above we can afford to do, resources committed
  - Thinking about what to propose, what to do sooner rather than later

2022-06-17

Objective	Working Group call	Time	Bi-weekly, Fridays alternating between 11am ET and 3pm ET
Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	3pm ET Meeting: <a href="https://meet.google.com/grh-oxfb-tee">https://meet.google.com/grh-oxfb-tee</a>  11am ET Meeting: <a href="https://meet.google.com/ccc-rhjb-fze">https://meet.google.com/ccc-rhjb-fze</a>

Agenda Item	Action Items	Owner
Introduction and agenda overview	•	Brian/Jack - 5 min
<b>Minimal Data Model Regroup</b> <ul style="list-style-type: none"><li>• Recall our data model <a href="#">Guide</a></li><li>• Action item from last time was to create a <a href="#">Google survey</a><ul style="list-style-type: none"><li>○ 1) what fields are missing?</li><li>○ 2) what fields should be required?</li></ul></li><li>• Let's look at the survey results (<a href="#">admin interface</a>)</li></ul>	<ul style="list-style-type: none"><li>• More responses please? Please fill in the survey<ul style="list-style-type: none"><li>○ SBG</li><li>○ Broad</li></ul></li><li>• Also, how do we collaborate with the search team</li></ul>	Brian - 10 min
<b>New group getting started guide</b> <ul style="list-style-type: none"><li>• Let's continue the work from the last 2 meetings</li><li>• What would a new system need to know to 1) participate in NCPI and 2) have researchers use it in successful use cases?</li><li>• Status? See doc links below</li></ul>	<ul style="list-style-type: none"><li>• Champions to provide guide content</li><li>• Ask NCPI portal admins (Dave Rogers) for next steps</li><li>• Asiyah Yu Lin will talk to Stephen about timeline for getting in the portal</li><li>• Push to portal by 22nd? Try to make progress by 17th.</li><li>• Teams please review the drafts of individual topics... see below.<ul style="list-style-type: none"><li>○ July 1st, check in</li></ul></li><li>• Add a portal platform intro paragraph<ul style="list-style-type: none"><li>○ Before NCPI meeting</li></ul></li></ul>	Brian - 20 min

<p><b>Ask the audience</b></p> <ul style="list-style-type: none"> <li>• Key highlight to include in the <i>15 minute NCPI meeting presentation</i> for Sys Interop?</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>	Jack and group - 20 min
<p><b>Next meeting topics</b></p> <ul style="list-style-type: none"> <li>• Topics for the next several meetings <ul style="list-style-type: none"> <li>○ Brian Walsh could present on FHIR→PFB tooling he's written <ul style="list-style-type: none"> <li>■ <a href="#">PDF pfb_fhir-bwalsh-june-2...</a></li> <li>■ <a href="https://github.com/uc-cdis/pypfb#convert-json-for-corresponding-datatype-to-pfb">https://github.com/uc-cdis/pypfb#convert-json-for-corresponding-datatype-to-pfb</a></li> </ul> </li> <li>○ Strategy and Purpose brainstorm (post NCPI meeting) What is our North Star, are we done, etc? <ul style="list-style-type: none"> <li>■ Good to regroup</li> </ul> </li> <li>○ Regroup on DRS after GA4GH hackathon (DRS client changes based on Amanda's feedback)</li> <li>○ <b>Other topics?</b></li> </ul> </li> </ul>		

### Notes:

Notes from today's call:

- Google doc is OK
- See Platform
  - Add a "how to join" info here... contact...
  - Paragraph about joining and diagram summary
  - **Minimal for the NCPI meeting next week**
- See Tech page: <https://anvilproject.org/ncpi/technologies>
  - Page for each technology details...
  - "If you're a system builder click here..."
- See doc page: <https://anvilproject.org/ncpi/training>
  - Add a trans NCPI tutorial
  - Links to code

### New group getting started guide - brainstorming

*If a new Platform wanted to join NCPI, what would it have to do? Can we document that? What would we want to document in each of the topics below? Are we missing any topics?*

Make this Markdown in GitHub... ask Dave R. about this.

Idea is to host on the [NCPI website](#)

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  - What each system supports... how and where a new system can interoperate
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  - Overview of auth
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  - Relationship with AuthN/Z... which servers require auth?
- [Portal handoff to compute workspaces](#) → Champion: Michael Baumann, Alex Vantol, Brian Walsh, Michele
  - Fields that need to be in the manifest
  - What formats are supported?
  - What are required
  - **Publish the minimal data model on the site**
    - Machine readable version too
    - Melissa Handle for example might have tooling
- [Tutorials](#) based on what was done for use cases → Champion: Brian O, Anne Deslattes Mays,
  - Terra-based tutorial
  - Cavatica/SBG-based tutorial
  - [Elements of Style for workflow creation and maintenance on the INCLUDE](#)

- Coming soon (Elements of Style for workflow creation and maintenance on Kids First – September - no difference really except that it will be highlighting the Kids First data sets)
- Presentation given during the course – [Platforms as a Service](#) - motivating platforms.

2022-06-03

Objective	Working Group call	Time	Bi-weekly, Fridays alternating between 11am ET and 3pm ET
Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	3pm ET Meeting: <a href="https://meet.google.com/grh-oxfb-tee">https://meet.google.com/grh-oxfb-tee</a>  11am ET Meeting: <a href="https://meet.google.com/ccc-rhjb-fze">https://meet.google.com/ccc-rhjb-fze</a>
<b>Participants:</b> <b>SIGN IN: Name &amp; Affiliation</b>	Amanda Charbonneau (CDA); Renan Martin (JHU); Surya Saha (SB); Alex VanTol (UChicago); Radhika Reddy (UChicago); Binam Bajracharya (UChicago); Jay Ronquillo (NCI); Eric Wenger (KF); Nicole Bolliger (Broad); Michael Baumann (Broad); Anne Deslattes Mays (NICHD);		

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	•	Brian/Jack - 5 min
<b>Minimal Data Model Regroup</b> <ul style="list-style-type: none"> <li>● Loop back on the great conversation from last time           <ul style="list-style-type: none"> <li>○ <a href="#">Guide</a></li> </ul> </li> <li>● Action item from last time was to create a <a href="#">Google survey</a> <ul style="list-style-type: none"> <li>○ 1) what fields are missing?</li> <li>○ 2) what fields should be required?</li> </ul> </li> <li>● Let's look at the survey (<a href="#">admin interface</a>)</li> </ul>	● <b>Groups - please fill out the <a href="#">survey</a> and we'll report back results in the next meeting</b>	
<b>New group getting started guide</b>	● Champions to provide guide content	

<ul style="list-style-type: none"> <li>Let's continue the brainstorming from last meeting</li> <li>What would a new system need to know to 1) participate in NCPI and 2) have researchers use it in successful use cases?</li> <li>Given the guides below, are we missing anything?</li> <li>Do we have champions for each guide?</li> </ul>	<ul style="list-style-type: none"> <li>Loop back on the status in the next meeting</li> <li>Ask NCPI portal admins to join next call (Dave Rogers) for next steps</li> <li>Asiyah Yu Lin will talk to Stephen about timeline for getting in the portal</li> <li>Push to portal by 22nd? Try to make progress by 17th.</li> </ul>	
<p><b>For your awareness - DRS challenges</b></p> <ul style="list-style-type: none"> <li>Review of some of the issues popping up in CRDC that would also likely affect NCPI and users outside Terra or SB</li> <li>Ga4gh DRS Client last updated multiple versions ago</li> <li>Testing was all done on Gen3 DCF Server</li> <li>Terra DRS Client most robust, will grab anything except the 404s</li> <li>SB DRS Client can't deal with results without a 'name' (not currently required in DRS spec)</li> <li><a href="https://docs.google.com/document/d/1J-rM1himoNK09YgWoWqmHR5ciFnZTLixd8_OhcKY9mE/edit?usp=sharing">https://docs.google.com/document/d/1J-rM1himoNK09YgWoWqmHR5ciFnZTLixd8_OhcKY9mE/edit?usp=sharing</a></li> </ul>	<ul style="list-style-type: none"> <li>Multiple PRs are in for some of these issues, should we coordinate PRs?</li> <li>GA4GH Client needs updating, should <b>anyone from this group spearhead?</b></li> <li>Also some issues with files not existing (but transient)</li> <li>Followup with valentina about opportunities to support DRS client</li> </ul>	Jack/ Amanda
<p><b>RAS update</b></p> <ul style="list-style-type: none"> <li>Check in on RAS <a href="#">milestone 3</a> progress, the RAS team has provided a new SOP and teams are following to get production approval</li> <li>Upcoming RAS <a href="#">milestone 4</a> doc</li> </ul>		Brian
<p><b>Ask the audience</b></p> <ul style="list-style-type: none"> <li>Key highlight to include in the NCPI meeting presentation?</li> </ul>	<ul style="list-style-type: none"> <li>Move this to the next meeting on the 17th... bring it to the next meeting</li> </ul>	all
<p><b>Next meeting topics</b></p> <ul style="list-style-type: none"> <li>Topics for the next several meetings</li> </ul>		

<ul style="list-style-type: none"> <li>○ Brian Walsh could present on FHIR→PFB tooling he's written</li> <li>● What is our North Star, are we done, etc? <ul style="list-style-type: none"> <li>○ Good to regroup</li> </ul> </li> </ul>		
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**Notes:**

**New group getting started guide - brainstorming**

*If a new Platform wanted to join NCPI, what would it have to do? Can we document that? What would we want to document in each of the topics below? Are we missing any topics?*

**Make this Markdown in GitHub... ask Dave R. about this.**

**Idea is to host on the [NCPI website](#)**

- [Systems table](#) and Sys Interop WG overview → Champion: Surya Saha (SBG), Alex (Gen3), Michael Baumann (Terra)
  - The systems of NCPI
  - What each system supports... how and where a new system can interoperate
  - Make it clear different profiles of systems coming into NCPI... e.g. data provider... and what they would need to support
  - Notes
    - Outreach working group has this as a starting point
    - Ask each platform to confirm
    - Asiyah will mention to Stephen and Dave!! Thanks!!
- [AuthZ/N](#) → Champion: Kurt Rodarmer, Nicole Bolliger, Alex Vantol
  - Overview of auth
  - What does RAS mean? SSO? AuthN? AuthZ? Understanding of what RAS provides
  - Point out RAS is a work in progress
  - Additional auth providers... for example Fence... give that context
    - IdP and potentially other Passport Brokers
  - Links to instructions on how to get access to RAS Box/GitHub
  - Links to RAS docs, look at the RAS developer guide
  - Sample code repo link
- [Data Sharing with DRS](#) → Champion: Brian O, Surya Saha (or Michele), Binam Bajracharya, Amanda Charbonneau, Michael Baumann
  - DRS 1.1 transition guide... move this to a public place
  - Relationship with AuthN/Z... which servers require auth?

- [Portal handoff to compute workspaces](#) → Champion: Michael Baumann, Alex Vantol, Brian Walsh, Michele
  - Fields that need to be in the manifest
  - What formats are supported?
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- [Tutorials](#) based on what was done for use cases → Champion: Brian O, Anne Deslattes Mays,
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  - Coming soon (Elements of Style for workflow creation and maintenance on Kids First – September - no difference really except that it will be highlighting the Kids First data sets)
  - Presentation given during the course – [Platforms as a Service](#) - motivating platforms.
- Maybe other teams
  - *Search and FHIR* → Champion: ???
  - *Policy and Agreements* → Champion: ???
- DRS feedback
  - CRDC/IDC
    - Manifest of DRS blobs feedback
    - Name not required...
  - CDA
    - DRS client issues
      - → which client? Terra? SBG? GA4GH?
    - Missing names... defaults to IDs which have slashes
      - → they put a PR to make this required
    - Compact IDs not supported in the DRS client
      - → not sure who will fix the DRS client...
    - Controlled vs. not controlled... how do you know
      - → there is an issue on DRS to add this
  - Blockers
    - GA4GH DRS client is out of date... doesn't accept compact identifiers
      - → Brian will ask if we can get a volunteer
    - 5% of the data 404... → issue with Gen3 service
      - → auth information coming in future PR
    - 77% of the files don't have a name → issue with Gen3
      - → 15M records... will need to evaluate this

2022-05-06

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	<ul style="list-style-type: none"><li>•</li></ul>	Brian/Jack - 5 min
<b>Minimal Data Model Regroup</b> <ul style="list-style-type: none"><li>• Where we left off on this?<ul style="list-style-type: none"><li>○ <a href="#">Guide</a></li></ul></li><li>• Goals for next iteration?<ul style="list-style-type: none"><li>○ PFB and Manifest?</li><li>○ Any additional fields?</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Create an RFC google survey and send it out: 1) what fields are we missing? 2) what are the required fields. Have that on the agenda for next meeting.</li></ul>	Jack / 20 min
<b>RAS Reportback</b> <ul style="list-style-type: none"><li>• Just a quick update for those not on the NCPI RAS calls</li><li>• Last <a href="#">meeting</a> was 5/3</li><li>• Details in meeting <a href="#">notes</a>, highlights<ul style="list-style-type: none"><li>○ Coordination on testing PHS IDs, test users, and data</li><li>○ Teams are submitting testing plans to RAS</li></ul></li></ul>		Brian / 10 min

<ul style="list-style-type: none"> <li>○ RAS team is presenting on their SOP</li> <li>○ mTLS has been sorted for dev/testing and production for now</li> <li>○ Generally teams are focused on milestone 3 work</li> <li>● RAS <a href="#">milestone 3</a> doc</li> <li>● RAS <a href="#">milestone 4</a> doc</li> </ul>		
<b>New group getting started guide</b> <ul style="list-style-type: none"> <li>● Can we brainstorm below?</li> <li>● What would a new system need to know to 1) participate in NCPI and 2) have researchers use it in successful use cases?</li> </ul>	<ul style="list-style-type: none"> <li>● Start creating stubs for documentation for the <a href="#">NCPI website</a> –Brian</li> </ul>	Brian / 20 min
<b>Next Call</b> <ul style="list-style-type: none"> <li>● Continue to work on onboarding guide for new efforts.</li> <li>● Any other items?</li> </ul>		

### Notes:

#### **New group getting started guide - brainstorming**

*If a new Platform wanted to join NCPI, what would it have to do? Can we document that? What would we want to document in each of the topics below? Are we missing any topics?*

**Make this Markdown in GitHub... ask Dave R. about this.**

- Systems table → Champion:
  - The systems of NCPI
  - What each system supports... how and where a new system can interoperate
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  - Overview of auth
  - What does RAS mean? SSO? AuthN? AuthZ? Understanding of what RAS provides
  - Point out RAS is a work in progress
  - Additional auth providers... for example Fence... give that context
    - IdP and potentially other Passport Brokers
  - Links to instructions on how to get access to RAS Box/GitHub

- Links to RAS docs, look at the RAS developer guide
  - Sample code repo link
  - Data Sharing with DRS → Champion:
    - DRS 1.1 transition guide... move this to a public place
    - Relationship with AuthN/Z... which servers require auth?
  - Portal handoff to compute workspaces → Champion:
    - Fields that need to be in the manifest
    - What formats are supported?
    - What are required
  - Maybe other teams
    - *Search and FHIR → Champion:*
    - *Policy and Agreements → Champion:*

2022-04-22

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	•	Teresa 5 min
<ul style="list-style-type: none"><li>• NCPI June workshop updates<ul style="list-style-type: none"><li>○ June 22-23 from 11-4 ET</li></ul></li></ul>	<ul style="list-style-type: none"><li>• May want to move data mesh topic to</li></ul>	Stephen

<ul style="list-style-type: none"> <li>○ <a href="#">Agenda here</a></li> </ul>	<ul style="list-style-type: none"> <li>right after Tanja's presentation</li> <li>● Looking for moderators for panel discussions and breakouts</li> <li>● Email Stephen Mosher: smosher3@jhu.edu</li> </ul>	
<ul style="list-style-type: none"> <li>● NCPI Search WG updates <ul style="list-style-type: none"> <li>○ Last Search WG meeting recording:</li> <li>○ <a href="https://nihcloudplatforms.slack.com/archives/C02GAOM9DPE/p1649856534074949">https://nihcloudplatforms.slack.com/archives/C02GAOM9DPE/p1649856534074949</a></li> </ul> </li> </ul>		Dave
<ul style="list-style-type: none"> <li>● Sharing Post-GA4GH connect meeting feedbacks</li> </ul>		Asiyah

**Notes:**

- [NCPI Workshop agenda](#)
  - Day 1
    - Hear from Anthony and Mike (directors of AnVIL)
    - FAIR Data
      - Susan Gregurick ODSS
      - Tanja Davidsen NCI
      - Titus Brown (CFDE)
      - Carol Bult
      - Sonja Rahman
    - Commercial Cloud Vendors
    - Breakout Sessions
  - Day 2
    - Interoperability driven science
      - Elixer
      - Melissa Wilson (ASU)
      - Nara Sobreira (JHU)
    - WG updates
    - Technical aspects of interoperability
      - STRIDES
      - EHR
      - GA4GH
      - Tbd
    - Breakout sessions
- NCPI Search WG update
  - Identify all search landscapes that are currently active
    - Interviewed NLM - focusing on dbGaP advanced search

- Drill down with PIC-SURE team today (Friday 4/22)
- GA4GH Connect notes/feedback
  - Mike Conway
    - Data passports and RAS, need to figure out how to deal with cloud and cost (minimize egress charges)
    - Federated search
    - Looking at Gen3 a lot (FASP, DRS)
      - How to introduce standard workflow languages
  - Michael Baumann
    - Knowing how to auth appropriately to access that data
      - RAS, passports, OIDC
      - Broad has greenlight and starting to implement now
    - Broad looking to do DRS release in August
    - Scale is important topic for data access
  - Valentina would like to see test case across NCPI
    - Imputation server that spans datasets across two or more systems
  - Asiyah
    - Data Connect
      - New data model partially because FHIR and OMOP is scary/
      -
    - Invite Discover group to present to Search group
    - Data discovery across Elixir and NCPI?

**From the chat:**

Jonas Almeida 12:36 PM

we are hoping to stay with solutions that governs access based on bearer token - i.e. let IAM or some equivalent mechanism manage access. We have some use cases that rely on that approach

<https://episphere.github.io/oauth/>

Jonas Almeida 12:39 PM

[https://datascience.nih.gov/sites/default/files/NIH\\_RAS\\_infographic\\_Dec2021\\_.png](https://datascience.nih.gov/sites/default/files/NIH_RAS_infographic_Dec2021_.png)

David Rogers 12:41 PM

<https://github.com/ga4gh-discovery/data-connect/blob/develop/SPEC.md>

Jonas Almeida 12:42 PM

linkml - <https://linkml.io/> ?

David Rogers 12:43 PM

<https://schemablocks.org/>

Jonas Almeida

Asiyah, is there any progress of GaTech OMOP on FHIR? (Georgia Tech)

<https://omoponfhir.org/>

2022-03-25

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	•	Brian/Jack - 5 min
<b>NCPI active use case check-ins</b> <ul style="list-style-type: none"> <li>● <b>Tracker:</b> <a href="https://github.com/orgs/NIH-NCPI/projects/1">https://github.com/orgs/NIH-NCPI/projects/1</a> <ul style="list-style-type: none"> <li>○ Use cases can be updated in github or in the website (linked below)</li> </ul> </li> <li>● <b>Summaries of completed:</b> <a href="https://anvilproject.org/ncpi/demonstration-projects">https://anvilproject.org/ncpi/demonstration-projects</a> <ul style="list-style-type: none"> <li>○ Can update use case using “improve this page” link at bottom of website (or use previously mentioned github)</li> </ul> </li> <li>●</li> </ul>		Jack
<b>UC15. Using the NCI Cancer Research Data Commons and NHLBI BioData Catalyst to better understand precision medicine</b>	Few slides <a href="#">here</a>	Jay Ronquillo

<ul style="list-style-type: none"> <li>TCGA (CRDC) controlled data access request submitted, reviewed, and granted</li> <li>TopMed (BDC) controlled data access request submitted, currently under review</li> <li>Developing precision medicine informatics pipeline leveraging work from my recently published research on precision medicine (<a href="https://ascopubs.org/doi/10.1200/CCI.21.00152">https://ascopubs.org/doi/10.1200/CCI.21.00152</a>)</li> </ul>	<p>Cancer and CV diseases are leading causes of morbidity and mortality Pipeline that integrates data on both of those disease areas.</p> <p>No blockers!</p> <p>KF also has some datasets that span cardiac and cancer - Adam and Jay to connect offline.</p>	
<p><b>UC 11. Sex as a Biological Variable</b></p> <ul style="list-style-type: none"> <li>See <a href="#">slides</a></li> </ul>	<p>Funding approved for the cloud credits Brian created a prototype, Melissa's postdoc moving to scale this to production Mike Schatz has a WDL version of align, working closely with Melissa in T2T project (next T2T deliverable April 1st; not yet including Y)</p>	Brian O'Connor
<p><b>UC14. Genome-wide Sequencing Analysis to Identify the Genes Responsible for Enchondromatoses and Related Malignant Tumors</b></p>	<p>Currently transferring data from different sources (CBTN + PNOC) to CAVATICA. Working to transfer AnVIL data to CAVATICA. Will use the AnVIL portal -&gt; PFB push method.</p>	Nara Sobreira and Renan paulo
<p><b>UC 10. SRA &amp; Kids First DRC for Kids First &amp; UDN co-analysis</b></p>	<p>Dry run for platform agnostic WFs, real class next week How to do the dbGaP (UDN data in there), SRA, and Kids First <b>search</b></p>	Adam Resnick, Anne Deslattes Mayes

	<p>Also leverage the shared FHIR implementation to support this genotype to phenotype use case CAVATICA sending a testing passport to dbGaP staging DRS. Nearly approved for production.</p>	
<b>UC 5. LINE-1 Retrotransposon Expression</b>	<p>“LINE-1 expression in cancer correlates with p53 mutation, copy number alteration, and S phase checkpoint” <a href="#">published</a> in PNAS on Feb 15, 2022</p>	Wilson McKerrow
<b>UC 1b. Genetic Basis of Congenital Heart Defects:</b> update	<i>In dissemination phase - updates coming soon</i>	
<b>UC 13: Federated Compute related use case update</b>	<p>(1) Take a fresh look at the long reads in (KF, AnVIL, 1000G) using fresh t2t genome. Look at other datasets as healthy controls. Hopefully starting next week, primarily on CAVATICA.</p> <p>(2) ODSS had a STRIDES initiative to catalyze cloud processing in long-read variant sequencing consortium. Includes both healthy and clinical cohorts. Goal is to build a catalog of SV, use it as a resource ala gnomad</p> <p>Key concern of “any problems with consent”.</p>	Michael...

	Will develop wdls that can run on a per-cohort basis.	
PIC-SURE with BDC-Terra and BDC-SB.	<a href="#">Just published the sickle-cell work demonstrating PIC-SURE-Terra work in BioData Catalyst ORCHID dataset showing PIC-SURE and Seven Bridges Interop published.</a>	Jessica
<b>Next call agenda:</b> <ul style="list-style-type: none"> <li>• New portals for handoff</li> <li>• Minimal data model regroup</li> <li>• PFB, TSV, other handoff mechanism</li> <li>• RAS Milestone 3 cross team checkin and milestone 4 doc status, can check in with teams</li> </ul>		Jack 2 min

## Notes:

2022-02-25

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Agenda Item	Action Items	Owner
Introduction and agenda overview	•	Brian/Jack - 5 min
<a href="#">Minimal Elements</a> doc updated	Please review add comments by March 4	Jack
Outreach collaboration <ul style="list-style-type: none"> <li>• <a href="#">NCPI site</a></li> <li>• Next steps</li> <li>• Are there any publications we should be including here?</li> </ul>	• Please look at demonstration projects and <b>let the outreach team know</b> if you have any comments on the site	Stephen
<a href="#">DRS PR</a> update		Doug
Seven Bridges update on WDL and Nextflow ( <a href="#">slides</a> )	Interested please users contact: <a href="mailto:surya.saha@sbgenomics.com">surya.saha@sbgenomics.com</a> He can also provide docs	Jack
call for additional topics <ul style="list-style-type: none"> <li>• PFB Schema (Brian's work on FHIR→PFB)</li> <li>• RAS examples and use cases</li> </ul>		all

**Notes:**

- NCPI Outreach collaboration:
  - What kind of artifacts should we collect?
  - Jonas - have to decide

2022-02-11

Objective	Working Group call	Time	Bi-weekly, Fridays alternating between 11am ET and 3pm ET
Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	3pm ET Meeting: <a href="https://meet.google.com/grh-oxfb-tee">https://meet.google.com/grh-oxfb-tee</a>  <b>THIS WEEK: 11am ET Meeting:</b> <a href="https://meet.google.com/ccc-rhjb-fze">https://meet.google.com/ccc-rhjb-fze</a>

Agenda Item	Action Items	Owner
Introduction and agenda overview	•	Brian/Jack - 5 min
<p>RAS <a href="#">Milestone 3</a> progress</p> <ul style="list-style-type: none"> <li>• Check in with each group</li> <li>• U. Chicago <ul style="list-style-type: none"> <li>◦ Good feedback on mTLS!!</li> <li>◦ Performance enhancement work</li> <li>◦ Code for improvements of tracking auth info ... order of magnitude improvements!!</li> <li>◦ Addressed edge cases</li> <li>◦ End of Q1 deployment... through 3.3 (performance improvements and mTLS). Gen3 passports... (3.4) unknown if that will be in Q1.</li> <li>◦ Code for supporting on track... deployment yet to be scheduled.</li> </ul> </li> <li>• Broad <ul style="list-style-type: none"> <li>◦ mTLS and private keys from U. Chicago</li> <li>◦ Implemented storage and usage</li> <li>◦ Working well! Rolled out into staging environments next week</li> <li>◦ Q: beyond BDCat... what are the plans for AnVIL, CRDC, Kids First?</li> <li>◦ Q: what's missing to deploy to other systems?</li> <li>◦ <b>Need production RAS credentials → RAS team</b></li> <li>◦ <b>Need production mTLS certs → NIH providing guidance here soon (Kurt)</b></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Peter to setup meeting with Kurt to discuss mTLS implementation questions.</li> <li>• Peter to speak to project managers on timeline for roll out of mTLS/RAS support in DRS servers for AnVIL, CRDC, Kids First, etc. Great to get a timeline here.</li> <li>• <b>We need to get a shared timeline for deployment to BDCat and other systems</b></li> <li>• <b>mTLS source needs to be decided ... ~2 weeks.</b></li> <li>• <b>Check in if teams got production client secrets for RAS. Broad and SBG have asked.</b></li> </ul>	

<ul style="list-style-type: none"> <li>● Seven Bridges <ul style="list-style-type: none"> <li>○ Tested mTLS, w/ private key, success with POSTman testing</li> <li>○ Downloaded a staging file</li> <li>○ External dependencies needing to clear e.g. getting production passport. In which environment is being targeted for production first? BDCat. Kids First and CRDC priority as well? Timing for this?</li> <li>○ <b>Need production RAS credentials → RAS team</b></li> <li>○ <b>Need production mTLS certs → NIH providing guidance here soon (Kurt)</b></li> </ul> </li> <li>● NCBI <ul style="list-style-type: none"> <li>○ Have DRS server in staging!!</li> <li>○ RAS clearinghouse is up for all deployments</li> <li>○ Testing CITs RAS systems... stress testing.</li> <li>○ dbGaP use of RAS... gated on the testing above. Once approved... moving SRA and dbGaP over to RAS!!</li> <li>○ DRS capable of serving any objects in SRA that are <i>online</i> <ul style="list-style-type: none"> <li>■ Can't for data that is offline</li> </ul> </li> <li>○ Working with GA4GH to update DRS to include info about offline/nearline data ... additional metadata</li> <li>○ UDN data use case... most moved to an online bucket. Special arrangements in DRS server... since they aren't indexed in SRA. Finalizing the tests here.</li> <li>○ Once tests are done, will move to staging area... SBG can access them then</li> <li>○ Discussions in GA4GH hackathon... possibility of bundles being dropped ... issue with SRA using them. Exploring different representations. Will help with resolving these bundles (that are very large).</li> <li>● ... add any additional here...</li> </ul> </li> </ul>		
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<p>RAS Milestone 4</p> <ul style="list-style-type: none"> <li>● <a href="#">Strawman doc for Milestone 4</a></li> <li>● As a followup to the NHLBI-organized RAS meeting 1/25</li> <li>● Check in with each team on feedback provided <ul style="list-style-type: none"> <li>○ What's missing?</li> <li>○ Can we get volunteers?</li> </ul> </li> <li>● <i>Can we set a timeline for this doc?</i> <ul style="list-style-type: none"> <li>○ <i>End of the month for comments</i></li> <li>○ <i>March 11th to finalize?</i></li> </ul> </li> <li>● Maria... by the end of March the Broad should have quarterly planning complete.</li> <li>● Michele... thoughts on Milestone 4 <ul style="list-style-type: none"> <li>○ GA4GH meeting... idea of "wallet" for different authorizations...</li> <li>○ Think about this functionality</li> <li>○ It's called RAS but is more about generic passport usage</li> </ul> </li> <li>● Valentina <ul style="list-style-type: none"> <li>○ Important point... Milestone 4 is less about RAS, more about ecosystem. Clarify this in the language...</li> </ul> </li> <li>● Anne <ul style="list-style-type: none"> <li>○ NIH RAS has gone a bit further down the path of security and is providing feedback to alter GA4GH to adhere to stricter security concerns. Needing the async capability regarding request for data and response with data - this is transport layer protocol level normal details (Kurt) has the details.</li> </ul> </li> <li>● Kurt <ul style="list-style-type: none"> <li>○ GA4GH passports...</li> <li>○ Moving on a path forward... accommodate the ELIXIR use case while meeting NIH security requirements</li> <li>○ Unknown if the "wallet" approach will work... TBD</li> <li>○ DRS IDs → associated with hosting service but not auth service. dbGaP consistent ID for auth service. Proposal... DRS server for dbGaP data, takes the ID and a</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● <b>Group - leave comments on the Milestone 4 doc by the end of the month</b></li> </ul>	
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different token scoped down for use, returns per-object authorization per URL.		
Upcoming agenda topics <ul style="list-style-type: none"><li data-bbox="244 327 860 359">• Platform update rotations, who would like to give an update?</li><li data-bbox="244 361 860 432">• 2/25 - blog post and outreach collaboration. Status of upcoming DRS changes and call for feedback.</li></ul>		

## Notes:

- See above...

2022-01-28

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b> <ul style="list-style-type: none"><li>• Review alternating meeting schedule</li></ul>	•	Brian/Jack - 5 min

<ul style="list-style-type: none"> <li>If you calendar show this meeting happening at 3pm ET every two week - you have the wrong invite on your calendar.</li> <li>Should be alternating between 3pm ET and 11am ET every two weeks</li> <li>Contact <a href="mailto:teresa@nimbusinformatics.com">teresa@nimbusinformatics.com</a> if you need help getting the correct calendar invite.</li> </ul>		
<ul style="list-style-type: none"> <li>Signed URLs and Requester Pays <ul style="list-style-type: none"> <li>See this <a href="#">document</a> for background, very much a work in progress</li> <li>See <a href="#">slides</a> from Michael B</li> <li>Next steps... do we want this to be a recurring topic? A tiger team?</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li><b>Group members, please join our docs and share</b></li> </ul>	Michael Baumann (Broad) - 20 min
<ul style="list-style-type: none"> <li>Broad and SB updates on timelines for turning on mutualTLS (and any other RAS milestone 3 discussion)</li> </ul>	<ul style="list-style-type: none"> <li><b>Expect info from RAS next month on the certificates. For production.</b></li> <li><b>U. Chicago, ready with certificates... Manisha and Doug ready for certificates. On staging.</b></li> </ul>	Broad, SBG team members - 15 min
<ul style="list-style-type: none"> <li>Platform reps idea introduction (and call for rep nominees)</li> </ul>	<ul style="list-style-type: none"> <li><b>Next meeting, see if we have a platform rep by next meeting</b></li> </ul>	Jack - 10 min
<ul style="list-style-type: none"> <li>Collecting of DRS improvements to prioritize <ul style="list-style-type: none"> <li><a href="#">2022 Roadmap from GA4GH Cloud</a> work stream</li> <li>Next week is the <a href="#">GA4GH FASP Hackathon</a></li> <li>3 sessions for community to work on DRS PRs of interest, see schedule <a href="#">here</a></li> </ul> </li> </ul>		Brian - 10 min
<ul style="list-style-type: none"> <li>Upcoming topics (see above)</li> </ul>		

**Notes:**

- GA4GH FASP hackathons on DRS:
  - Session 1 - FASP Hackathon 5: DRS PRs work time

- Tuesday, February 1 · 11:00am – 1:00pm Pacific
  - Google Meet joining info
  - Video call link: <https://meet.google.com/pxp-btqs-ibw>
- Session 2 - FASP Hackathon 5: DRS PR work time
  - Wednesday, February 2 · 3:00 – 5:00pm Pacific
  - Google Meet joining info
  - Video call link: <https://meet.google.com/riq-cuxh-nqu>
- Session 3 - FASP Hackathon 5: DRS PRs work time
  - Friday, February 4 · 8:00 – 10:00am Pacific
  - Google Meet joining info
  - Video call link: <https://meet.google.com/bux-njwz-yzh>
- Requester Pays and Signed URLs
  - Bill L. described a use case where a DRS server should declare what's 1) egress free and therefore should not require project billing info and 2) what's requester pays and does require a billing account.
    - Need to understand what information a DRS server needs to provide to enable the client to request the correct thing
    - So a user avoids getting charged for a "free" bucket access egress
  - Michael showed slides on his exploration of signed URLs in Google
    - See slides [doc](#)
  - Doug
    - Issues
      - User ability to grant access to the service account
      - Issue of granting access to an external service account
  - Key questions for the group
    - Is there a similar path forward for AWS or Azure?
    - Are there other use cases that need to be considered by other NCPI systems?
    - What changes are needed for DRS to provide enough info (see the flow diagram from the shared doc)
    - Who wants to help with this?
    - Is there a better generic way to do this? Speak with one voice through Nick W. and STRIDES... let's get the ask together with a unified voice
- Turning on mutualTLS
  - Broad and SB ready to go when Gen3 is ready
  - Kurt - expect update from RAS team next month on certificates
- Platform reps?
  - A point person for each platform involved in NCPI
  - Focus on what we need
- DRS PR about how to discover how to authorize a DRS request:  
<https://github.com/ga4gh/data-repository-service-schemas/pull/381>
-

2022-01-14

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	•	Brian/Jack - 5 min
<ul style="list-style-type: none"> <li>• Outreach collaboration             <ul style="list-style-type: none"> <li>○ How can Sys Interop and Outreach work together?</li> <li>○ How do we promote the story of "11PB available in NCPI systems today"                     <ul style="list-style-type: none"> <li>■ Blog post?</li> <li>■ Github repo? <a href="https://github.com/briandoconnor/noci-interop-demo-oct-2021">https://github.com/briandoconnor/noci-interop-demo-oct-2021</a></li> <li>■ ???</li> </ul> </li> </ul> </li> </ul>	•	Stephen Mosher - 20 min
<ul style="list-style-type: none"> <li>• RAS testing milestone 3 feedback checking with:             <ul style="list-style-type: none"> <li>○ Gen3</li> <li>○ Seven Bridges</li> <li>○ Terra</li> </ul> </li> </ul>		Peter, Manisha, Nicole - 20 min
<ul style="list-style-type: none"> <li>• Upcoming topics</li> </ul>		Jack/Teresa - 5 min

<ul style="list-style-type: none"> <li>○ Jan 28 - TBD... propose to use this for a tiger team focused on signed URLs + requester pays strategy session</li> <li>● Also should be thinking about longer-term topics</li> </ul>		
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### **Notes:**

#### **Outreach & collaboration**

- Really appreciate the help from Outreach
- Multiple ongoing activities, number of studies and research that we want to highlight. Highlights presented at NCPI workshop, some information at the NCPI portal. More work to be done.
- Discussion of next steps.
- Is NCPI Portal the right medium? General vibe of yes.
- Ideas?
  - Posted video from Jack on NCPI portal
  - Success stories from researchers use cases?
    - ACTION ITEM: Identify what's already done, if written up then just post. If not written up, work with folks with the right context.
  - Tutorial for 11PB of data in Terra and SBG (and/or other locations?)
    - Github for markdown
    - Pull into NCPI portal and other places
  - Recipes ... those are useful... smaller tutorials would be useful for users too
  - How to amplify? Blog post? Press release from NIH?
    - Target Emails
    - Promotions through the platforms/projects?
    - Twitter ... NCPI and other accounts, coordinated messaging and cross-support of each other.
    - Also conferences and publications
    - Press release... via ODSS twitter
    - Webinar for NCPI... promoted across AnVIL, BDCat, CRDC, Kids First, dbGaP/SRA?
    - NCPI workshop later this year (will be open to the community)... could be a great place to reach wider audience

#### **RAS Feedback**

- Nicole: Broad feedback in this [slide](#)
  - One concern is that getting a signed url back is about 30 seconds. Gen3 working on this, it's an artifact of the current dev environment - will be solved on schedule.
  - Size of the passport is also very large (one of the RAS test users), that may be a contributing factor. Will share with Kurt Rodarmer, he's getting different performance with the NCBI DRS server and wants to dig in.
- Manisha/Michele: SB has not yet finished the testing
  - Controlled data is what was expected

- Appreciated the UC added some additional access types we requested
- Open + other controlled (e.g. consortium data)
  - *Fully open* (e.g. 1000g) seems ok
  - *Open, but needs to be authenticated* seems to be the issue. Can't add these until 3.4 release
  - These data types elaborated in Gen3 [doc](#)
- the DRS spec are not able to support two passports on the same DRS url (and while you could have done with one, hardcoding requested passport with the DRS url server for all the possible passport provider can become very challenging, also because there is no guarantee that the data offered by that DRS server will only be the one decided at the beginning. Examples
  - BioData Catalyst:
    - RAS for dbGaP
    - consortium data
  - Kids First:
    - RAs for dbGAP
    - consortium data
- Example additional data weren't in the current DRS spec, understanding what happens once RAS goes live? Not planning on "going-live" with 3.3, release to production systems will be after 3.4
- **Also a great opportunity** for NCPI to bring this feedback to the DRS spec. Opportunity here for bringing these mixed authorizations problems back to ga4gh. Broad has also had challenges understanding "what passport to use where".
  - Not solving this could be a risk for production, especially as passports get larger and there are more DRS Servers online.
  - Seems a route to production, anything from Gen3 gets the RAS passport (which will always be distinct). *We can hardcode our way to victory*, but space to make it better later.
- Peter: General feedback has been helpful, some clients aren't ready to flip the switch to mTLS. Not pushing a timeframe, but how to get to that decision.
  - Stakeholders are testors: Broad and SB. ACTION ITEM: bring updates on timelines for turning on mutualTLS to next Sys Interop

## Future topics

Any other topics to add? No one feeling chatty.

2021-12-17

Objective	Working Group call	Time	Bi-weekly, Fridays alternating
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Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	•	Brian/Jack - 5 min
<b>Recap Milestone 3</b>		Brian
<ul style="list-style-type: none"><li data-bbox="254 1182 816 1199">Timeline review from our <a href="#">milestone 3 design doc</a></li></ul>		5 min
<b>RAS Milestone 3 and Gen3</b>	•	Peter and Gen3 team
<ul style="list-style-type: none"><li data-bbox="254 1265 853 1317">A support document with instructions for getting set up can be found here:</li><li data-bbox="254 1324 866 1421"><a href="https://docs.google.com/document/d/19K6jYW_v2c6Uu04jzc1cPKI9vg-u6p05qkV9BY4HSDo/edit?usp=sharing">https://docs.google.com/document/d/19K6jYW_v2c6Uu04jzc1cPKI9vg-u6p05qkV9BY4HSDo/edit?usp=sharing</a></li></ul>		
<b>Next Meeting Topic</b>		
<ul style="list-style-type: none"><li data-bbox="254 1491 829 1605">Jan 14<ul style="list-style-type: none"><li data-bbox="349 1533 816 1598">Feedback from teams on MVP from U. Chicago</li><li data-bbox="349 1605 727 1622">coordination call with outreach</li></ul></li><li data-bbox="254 1630 853 1695">Jan 28 - TBD... we could use this for a tiger team focused on signed URLs + requester pays strategy session</li></ul>		

## Notes:

- RAS Milestone 3 MVP
  - Available for testing
  - Configured data inside this Gen3 DRS server
  - Dummy data
  - Point is to check access
  - Uses the test RAS passports
  - Implements expiration of passports
  - Stood up basic gen3 system for testing as well for Gen3 token testing
  - mTLS, they will provide certs for testing... need to look at the process for production, still TBD what the process is
    - Maybe look at providing a testing server with mTLS and another without... just for testing purposes
  - Video by Alex
    - RAS passport obtained, visa for phs ID
    - File with permissions associated with same phs ID
    - POST request to get the file
    - <https://docs.google.com/presentation/d/1kM197zWGTTm2wWaYhOt1V8EvUZJwJsIFjZafK-32FnQ/edit?usp=sharing>
- Issues/feedback
  - Leave feedback over email to Peter, will distill at the end of the doc
  - Additional data types requested by SBG
  - Another instance with mTLS or a switch over date
  - Doug and others are flagging the issue of signed URLs + requester pays
    - Kurt has discussed with cloud providers via STRIDES
    - Maybe a tiger team here? Anne brings up needing POs on this
  - How to choose passport to use? Can we update the DRS spec to specify which passport to use? Yes, we need to add this.
  - ETA for mTLS, multiple passports (e.g. milestone 3.4 Gen3 and RAS)? Requirements for production.
- Related info
  - RAS for other services
    - dbGaP on FHIR... look for this in the future Kurt
    - Look at [sample code](#) for RAS to secure a mock DRS server... can swap out mock DRS server for other services –Brian
    - In the future RAS will have other visas... for other services in the future –Kurt

The screenshot shows a Google Slides presentation with the following details:

- Title:** Gen3 RAS MS3 Test Environment Demo
- Content:** The first slide contains the title "Gen3 RAS MS3 Test Environment Demo" and a subtitle "11.08.2021". The second slide is titled "Demo" and lists the following bullet points:
  - Obtain RAS passport outside of Gen3 Instance
    - Test User with access to large amount of studies (200)
  - Show the authorization required for a controlled test file in the Test Environment
  - Show that passport contains a specific dbGaP authorization
  - POST RAS Passport to new Gen3 GA4GH DRS endpoint and receive back a signed URL
  - Show that access to the file doesn't work in browser (b/c we never logged into Gen3)
- Notes:** A note on the second slide states: "Note: This is a controlled test file. It is not intended for public use. If you have any questions or concerns, please contact the test environment administrator."
- Bottom:** A note says "Click to add speaker notes".

The screenshot shows a web browser displaying a JSON response from the URL <https://ctds-test-env.plaxx-plan.net/index?file=TEST0/000311ea-d4e4-4462-9582-00562eb757aa>. The JSON object contains the following fields:

```
ac1: [ ],
authz: ["/programs/phs001151.c1"],
baseid: "b4d758a6-9210-4292-830d-1e51f5f2b50c",
created_date: "2021-11-22T18:01:37.150334",
drse_id: "TEST0/000311ea-d4e4-4462-9582-00562eb757aa",
file_name: "",
form: "object",
hashes: {
    md5: "fba8ddfc5202e67c8c98583c0acfbdcc"
},
metadata: { },
rev: "64bbb0c7",
size: 42,
updated_date: "2021-11-23T16:39:44.463962",
uploader: null,
urls: [
    "gs://ctds-test-controlled-a/testdata.txt",
    "s3://cds-presigned-url-test/testdata"
],
urls_metadata: {
    gs://ctds-test-controlled-a/testdata.txt: { },
    s3://cds-presigned-url-test/testdata: { }
},
version: null
```

```
acI: [],  
authz: [  
    {"program": "phs001151.cl1"}  
,  
baseid: "b4675086-9210-4a92-83d0-1e51ff2b50c",  
created_date: "2021-11-22T18:01:37.15034",  
did: "dg_TEST0/000311ea-64e4-4462-9582-00562eb757aa",  
file_name: "",  
form: "object",  
hashed: {  
    md5: "fba0ddfc5202e67c8c98583c0acfbbdc"  
},  
metadata: { },  
rev: "64bb8bc7",  
size: null,  
updated_date: "2021-11-23T16:30:44.463962",  
uploader: null,  
urls: [  
    {"gs://cdts-test-controlled-a/testdata.txt",  
     "s3://cdts-presigned-url-test/testdata"  
},  
],  
.urls_metadata: {  
    gs://cdts-test-controlled-a/testdata.txt:  
        {"s3://cdts-presigned-url-test/testdata": {}  
},  
},  
version: null
```

2021-12-03

Objective	Working Group call	Time	Bi-weekly, Fridays alternating between 11am ET and 3pm ET
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Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	•	Brian/Jack - 5 min
• Scheduling format	•	Teresa 2 minutes
• RAS status update from Gen3 •		Bob/Peter 10 minutes
•		

## Notes:

## Gen3 RAS Status Summary

- *On track for test release (milestone 3.2.1) on Dec. 7.*

## **Key deliverables:**

- Test deployment that collaborators can use to test their own systems
    - **DRS endpoint:** External collaborators will be able to test a DRS endpoint with RAS passports to retrieve sample data files for which they have authorization.
    - **Gen3 login to obtain RAS authorization:** Test users will be able to log into a Gen3 commons using RAS as their IdP and obtain passport-derived access to data within the commons
  - Introductory Documentation
    - CTDS will publish a brief “getting started” document for collaborators.

#### **Additional notes:**

- mTLS
    - Work for milestone 3.3 (mTLS) is also complete.
    - CTDS will issue certificates (for mTLS) during the early access test period
    - As planned, mTLS will not be enabled on Dec 7, to give collaborators time to prepare their systems.
  - Collaborators who need access to the test environment will need to be set up in the RAS test system.

2021-11-19

Objective	Working Group call	Time	Bi-weekly, Fridays alternating between 11am ET and 3pm ET
Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	3pm ET Meeting: <a href="https://meet.google.com/grh-oxfb-tee">https://meet.google.com/grh-oxfb-tee</a>  11am ET Meeting: <a href="https://meet.google.com/ccc-rhjb-fze">https://meet.google.com/ccc-rhjb-fze</a>
<b>Participants:</b> <b>SIGN IN: Name &amp; Affiliation</b>	Victoria Smith (Broad); ; ; ; ; Owen White (CFDE); ; ; ; ; Peter Vassilatos (UChicago) ; Alex VanTol (UChicago); Radhika Reddy (UChicago); Binam Bajracharya(UChicago); ; ; ; ; ; ; ; Tanja Davidsen (NCI) ; ; ; Michele Mattioni (Seven Bridges) ; ; Asiyah Lin (NHGRI); ; ; ; ; ; ; ; ; Jessica Lyons (HMS) ; Jason Stedman (HMS) ; ; ; ; ; Surya Saha (Seven Bridges) ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; Alison Leaf (Seven Bridges) ; ; ; ; ; Amanda Charbonneau (CFDE) ; ; ; ; Tim Harris (UCSC) ; ; ; ; ; ; ; ; ; ; ; ; Nicole Bolliger (Broad) ; Doug Voet (Broad) ; ; ; ; Chris Kinsinger ; ; ; ; Mike Conway (NIEHS); Manisha Ray (Seven Bridges); ; ; ; ; Kurt W. Rodarmer (NCBI) ; ; ; ; ; ; Valerie Cotton (NICHD) ; ; ; Tony Patelunas (Seven Bridges) ; Brian Walsh (OHSU) ; ; Haluk Resat; Titus Brown (UC Davis)		

Agenda Item	Action Items	Owner
Introduction and agenda overview	•	Brian/Jack - 5 min
<ul style="list-style-type: none"> <li>CFDE/Cavatica DRS implementation and data egress challenges <ul style="list-style-type: none"> <li>Slides: <a href="#">2021-cfde-drs-ncpi-sysinterop.pptx</a></li> <li>Question about s3://URI implementation</li> <li>Some background info: <ul style="list-style-type: none"> <li>DRS <a href="#">spec</a></li> <li><a href="#">DRS servers info</a> for NCPI</li> <li>An excellent <a href="#">AWS blog article</a> on combining requester pays with signed URLs <ul style="list-style-type: none"> <li>Google cloud <a href="#">supports</a> a similar capability</li> </ul> </li> </ul> </li> </ul> </li> </ul>	•	Chris Kinsinger - 20 min

	(providing billing account at signing) ● Not sure about <a href="#">Azure</a>		
● RAS status update from Gen3 ○ Some background info: ■ <a href="#">RAS Milestone 3 doc</a>	●	Gen3 Team - 10 min	
● Next meeting topic (12/3) - last time we discussed several ideas, what do we want to focus on for the next call? ○ 12/3 - ■ brief update on RAS, teams providing test accounts from RAS they want to use. Stretch goal is mutual TLS for Dec. ■ Outreach discussion ○ 12/17 ■ RAS, mutual TLS update (any word from Kurt, NIH is discussing?). Also, immediate plan for workspace/clients testing the RAS test instance that should be online by the 17th. Review docs and sample URLs.	●	Brian/Jack - 5 min	

## Notes:

- ...

2021-11-05

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	•	Brian/Jack - 5 min
<b>Use case selection process</b>	•	Asiyah 30 min
<ul style="list-style-type: none"><li>● Demonstrates interop of NCPI<ul style="list-style-type: none"><li>■ Across at least two NCPI platforms</li></ul></li><li>○ Approach<ul style="list-style-type: none"><li>■ Proposal - one pager</li><li>■ Implementation</li><li>■ Dissemination - demo, training materials, outreach</li></ul></li><li>○ Bringing use cases back to the group to share updates along the way is very useful to this group</li><li>○ GMFK use case <a href="#">slides</a></li></ul>		
<b>Next meeting topic brainstorm</b> <ul style="list-style-type: none"><li>● 1) RAS check in with teams</li><li>● 3) New portals adding handoff → PDC and CFDE focused call? Followup with CRDC/U. Chicago.</li><li>● 4) Metadata search and NCPI data browsing portal. U. Chicago. PIC-SURE. Combined call with FHIR working group. Asiyah has a roster of who has signed up for this. Will come back from the coordination working group.</li><li>● 2) Collaboration with outreach team to spread message of what you can do today (11PB!) → 1) ask Dave to join the call, 2) connection with GA4GH, more formal collaboration</li></ul>	•	Jack/Brian 10 min

## Notes:

- Presentation by Asiya: [slides link](#) (with meeting feedback)
    - See the github repo: [https://github.com/NIH-NCPI/NCPI\\_use\\_case\\_tracker](https://github.com/NIH-NCPI/NCPI_use_case_tracker)

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## Agenda

1. Overall: Journey of a NCPI Use Case – from a seed to a forest
2. Discuss current use cases status
  - 1) Completed use cases
  - 2) Ongoing use cases
  - 3) FHIR use cases
  - 4) Search use case
3. Tracking and managing use cases
  - 1) GitHub
  - 2) ZenHub

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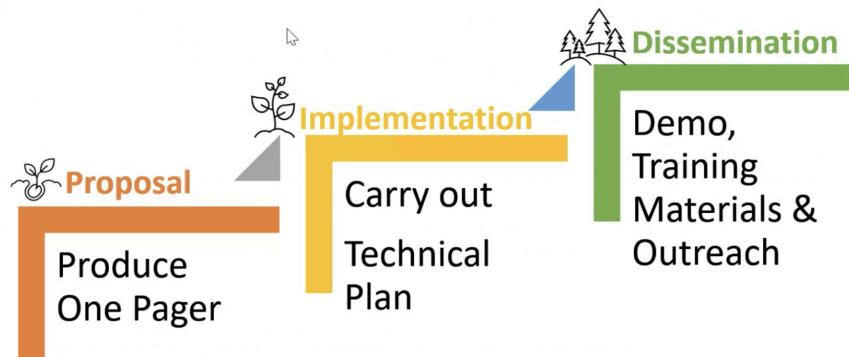
## What is considered as a NCPI Use Case?

- To answer a scientific question, access and analyze data from NCPI platforms ( $n \geq 2$ ) becomes necessary
- Demonstrate the NCPI interoperability
  - Create cohorts from at least two NCPI platforms
  - Access data from at least two NCPI platforms for analysis in one workspace
  - Develop portable software and tools across at least two NCPI platforms
  - More examples ...
- Drive the development of NCPI interoperability technology specification

\*NCPI platforms: platforms support AnVIL, BDCat, CRDC, Kids First, NCBI.

○

## NCPI Use Case Driven Approach



### Proposal Phase



- NIH staff or a researcher identifies a potential scientific use case.
- In collaboration with NCPI WG Leads and platform PIs:
  - Identify scientific lead
  - Identify platform lead (a.k.a. interoperability tech lead)
  - Develop the interoperability plan and challenges
  - Identify funding resources
- Develop one pager.
- NIH Coordination WG keeps the one pager for documentation and management purposes.

## Current Use Cases

13 NCPI use cases(UCs), 3 FHIR UCs, 1 search UC

- (4) (P) (F) (B) (Q) (-)

### NCPI Ucs (completed)

Use case	Platforms	Datasets	Phase	Leads
<a href="#">UC #5: LINE-1 retrotransposon expression</a>	GEN3 [CRDC (PDC, GDC)], Terra [AnVIL]	TCGA, CPTAC, GTEx	Dissemination phase <a href="#">Webinar</a>	Dave
<a href="#">UC#7: Congenital heart defects genetic factors</a>	Terra [AnVIL], CAVATICA [Kids First], Terra [BioData Catalyst(BDC)]	GTEx, PCGC, Control: Framingham Heart Study (FHS), Jackson Heart Study (JHS)	Dissemination phase <a href="#">slides</a> , paper in prep.	Brian and Tim Majarian

Question to Brian and others on UC#7:  
"Two cardiovascular (Taylor et al. (PCGC), Marojan et al. (PCGC, JHS, GTEx))" – are these the same UC?  
(quoted from [WG executive summary](#))

- (4) (P) (F) (B) (Q) (-)

- UC10:

- Summary from Valerie:

[https://docs.google.com/presentation/d/1mVUtEIBx6L6xf7bXgiuh2IHeSp6A6RDNkPlcvSmo\\_o/edit?authuser=2#slide=id.gf524d60b9e\\_0\\_0](https://docs.google.com/presentation/d/1mVUtEIBx6L6xf7bXgiuh2IHeSp6A6RDNkPlcvSmo_o/edit?authuser=2#slide=id.gf524d60b9e_0_0)

- Use cases coming up
- New issues → new use cases, see GitHub above

2021-10-08

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	•	Jack - 5 min
• Debrief from NCPI Fall Workshop	•	

## Notes:

2021-09-24

Objective	Working Group call	Time	Bi-weekly, Fridays alternating between 8am PT and 12pm PT
Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	3pm ET Meeting: <a href="https://meet.google.com/grh-oxfb-tee">https://meet.google.com/grh-oxfb-tee</a>  11am ET Meeting:

Agenda Item	Action Items	Owner
Introduction and agenda overview	•	Jack - 5 min
<ul style="list-style-type: none"><li>• Draft <a href="#">agenda</a> for NCPI meeting Oct 5-6</li><li>• Review one-pager <a href="#">executive summary</a> for Fall 2021 NCPI Workshop</li><li>• Review slides<ul style="list-style-type: none"><li>◦ <a href="#">Demo</a> 25 min... 10 min FHIR, 10 min Sys Interop</li><li>◦ <a href="#">Updates on key topics</a></li></ul></li></ul>	•	

## Notes:

2021-09-10

Agenda Item	Action Items	Owner
Introduction and agenda overview	•	Jack - 5 min
•	• 1	

2021-08-27

Agenda Item	Action Items	Owner
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Introduction and agenda overview	•	Brian/Jack - 5 min
RAS Milestone 3 → finalize timeline <ul style="list-style-type: none"> <li>○ 1) <a href="#">20210506 - RAS Authn/Authz "Milestone 3" Design with GA4GH Passports</a> for reference, anything concerning?</li> <li>○ 2) U. Chicago presenting their updated timeline</li> <li>○ 3) Group finalizes a milestone 3 <a href="#">common timeline</a> and dependencies across teams... dates would be great!!</li> <li>○ 4) Sign off by ICs and other teams</li> </ul>	<ul style="list-style-type: none"> <li>• AI: Platforms (Broad, Gen3, SBG): sign off on the milestone 3 doc (<a href="#">see table</a>) -- 9/3</li> <li>• AI: POs: sign off on milestone 3 doc (<a href="#">see table</a>), this week identify if we have an issue with one or more IC <i>not</i> being able to sign off -- 9/3</li> <li>• AI: CRDC &amp; GMKF NCI security: decision for client verification needs. This is not a blocker for the implementation of RAS+Passports</li> <li>• AI: Jack and Brian ask for platform sign-off</li> <li>• AI: Jack and Brian regroup with PO's in a week</li> </ul>	
Future/other topics <ul style="list-style-type: none"> <li>• How do teams encode visas for consortium/dev allowlists?</li> <li>• Sample code from NCBI for SRA DRS server and clearinghouse? Timelines?</li> <li>• Login.gov transition... is there a timeline for eRA Commons-based login going away?</li> </ul>		

#### Notes:

- AnVIL
- BDCCat
  - Alastair - Agreed DRS server + client via mutual TLS... part of interconnect agreement
- CRDC
  - Allen - NCI, an open question right now.
  - Need to verify with security
- GMKF

- Same as NCI
  - Rebecca Rosen and Alastair - Let's call it "Client authentication" instead of TLS
  - Rebecca and Valerie - Client authentication is different from which platforms are trusted
  - Rebecca - We want to know what is being built, why, and how for software components
  - Chat - Rebecca on U. Chicago plan "To be clear - this is standard material that should be submitted to the NIH IC for their review. RAS will review after ICs have signed off"
    - Technical development efforts being funded by NIH IC - once IC system owner (p.o) has signed off then RAS team will review
    - Program officers (from IC) review at a high level and then RAS team looks at technical, more detailed review
  - Valentina - concern that we are still not hearing commitment to the U. Chicago timeline
  - Bob - maybe we could add the sign-off process to the timeline document
  - Brian - try for consensus by the POs for sign off... if this is not possible in a week then focus on a plan B.
    - September 10
  - Kurt - would be helpful to have detailed technical plan for RAS team to review before coding starts
  - Chat - Rebecca - There is no NIH saying "stop coding" here. There is NIH saying \_ tell us what you are building before we pay to build it"
  - Natalie - asking for clear understanding of what they can anticipate for the code - elaborate on what's being provided
  - What level of detail is missing here (from the timeline document) that the P.O.'s need
    - Rebecca - it's consensus. Send the document that needs to be reviewed, cleaned-up document of what you're going to build and send it up the chain
    - SB, Terra, Gen3 - sign off on document then Program Officers sign-off with Rebecca
  - Program officers are meeting this afternoon - they do not need sign-off on doc for this meeting

2021-08-13

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	•	Brian/Jack - 5 min
<b>Metadata service presentation - Chris Meyer</b> <ul style="list-style-type: none"> <li>• U. Chicago will present on their metadata service and searching across NCPI           <ul style="list-style-type: none"> <li>○ For questions/info contact:               <ul style="list-style-type: none"> <li>■ helpdesk is: support@datacommons.io</li> <li>■ Chris Meyer email: cgmeyer@uchicago.edu</li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Get link to slides from Chris</li> </ul>	U. Chicago
<b>Reminder for next meeting</b> <ul style="list-style-type: none"> <li>• 8/27 (early, 8am pacific) RAS Milestone 3 → finalize timeline           <ul style="list-style-type: none"> <li>○ <i>Finalize a milestone 3 common timeline and dependencies across teams ahead of the call</i></li> </ul> </li> </ul>		Brian

#### Notes:

- Reminder for RAS-focused meeting on 8/27, followup to last meeting
- U. Chicago Metadata Search across systems
  - Contacts
    - helpdesk is: support@datacommons.io
    - Chris Meyer: cgmeyer@uchicago.edu
  - Metadata service and search across NCPI
    - Can attach metadata to things like DRS and other entities
    - Systems that have a right to distribute data, authorized environment to compute on that data
    - Adding metadata search service in each of those projects to be able to search across... take to appropriate workspace
    - Project Name: Biomedical Research Hub (BRH)
      - Resources → datasets
      - Datasets → metadata
      - Metadata makes it FAIR
      - Discovery portals to send to authorized environment
    - Complementary to the data APIs
  - BRH
    - <https://brh.data-commons.org>

- Example API call
  - <https://jcoin.datacommons.io/mds/metadata?data=true>
    - [https://jcoin.datacommons.io/mds/metadata?data=true&\\_g\\_uid\\_type=discovery\\_metadata](https://jcoin.datacommons.io/mds/metadata?data=true&_g_uid_type=discovery_metadata)
  - <https://gen3.biodatacatalyst.nhlbi.nih.gov/mds/metadata?data=true>
- Handoff to workspace
  - VMs with various interactive analysis environments
  - Their workspaces include a pd drive
  - Users need to shutdown their workspace to avoid additional charges
  - Pd drive: persistent drive... mounted by each workspace to give you a working space
  - Data manifest is loaded automatically into the PD directory
- Download
  - In the future may have direct download
  - For now, manifest format used with download tool
- Advanced search is being worked on
- Tiger Team
  - Yes, RENCI is putting this together
  - Look at use cases from Sys Interop, and FHIR, Valerie Cotton commented it's important to ground ourselves in use cases
  - May have new use cases... Asiyah points out use case work done over the last few weeks, differences between systems
  - Look at FHIR working group as well
- Questions
  - What data model? What's the min required for data to be FAIR?
    - Cross Cut Data Model?
    - CCDH?
    - FHIR?
    - Something else?
    - A: groups will decide... assume 1) auth 2) metadata service, 3) something like DRS for data access
      - Assumes communities define metadata model but maybe communities will work on converging
    - Adam pointed out FHIR as a tools for convergence around search... could that be leveraged here?
      - FHIR will be one of the models supported here
  - What systems for indexing?
    - Do you index only Gen3 systems?
    - Is the adapter interface documented so others can add resources?
      - A: goal is to make it easier to add adapters. Existing repos, prioritize adapters...

- Chris showed <https://github.com/uc-cdis/metadata-service>
    - Examples:  
<https://github.com/uc-cdis/metadata-service/tree/feat/mds-adapter/configs>
  - Writing the model... biomedical research hub paper being written now.
  - How does the handoff work?
    - E.g. send to <https://brh.data-commons.org/workspace>
    - PFB?
    - A: will use multiple approaches... manifest and PFB... interest in DRS objects in collections... interested in paging for DRS objects... container
  - Workspaces in Gen3
    - Are there limits for the number of workspaces a given user can launch?
    - Is the PD folder size limited? Are files mounted in or copied?
  - can you share a link to a paper or example on what satisfies the description of "FAIR metadata" document? I'm assuming it is something serialized as json, maybe json-ld ? → Jonas Almeida asked
    - Working with groups on standards to use DUBLIN core etc
    - Assuming for other projects, they will determine the contents of the JSON
    - FAIR API... means an object exposes a metadata

2021-07-30

Objective	Working Group call	Time	Bi-weekly, Fridays 12pm PT
Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	<a href="https://meet.google.com/grh-oxfb-tee">https://meet.google.com/grh-oxfb-tee</a>
<b>Participants:</b> <b>SIGN IN: Name &amp; Affiliation</b>	; ; ; ; Maria Cervone (Broad);Mike Conway (NIEHS) ; ; ; ; ; Asiyah Lin (NHGRI); ; Doug Voet (Broad) ; ; ; ; ; Alisa Manning (Broad) ; ; ; ; ; Michael Lukowski (U Chicago); ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; Nicole Bolliger (Broad) ;Michael Baumann (Broad) ; ; ; ; ; Erika Kim (NCI) ; Valerie Cotton (NICHD); ; ; ; ; ; ; ; ; ; ; ; Jason Stedman(PIC-SURE); Radhika Reddy (UChicago); ; ; Binam Bajracharya(UChicago); Andre Paredes (UChicago) ; ; ; ; ; ; ; ; ; ; ; ; ; Jay Ronquillo (NCI); ; ; ; ; Stephen Mosher JHU ; ; ; ; ; ; ; ; ; ; ; Celine Pelletier (CHU Sainte Justine); ; ; ; ; ; ; ; Eric Wenger (CHOP/KFDRC); ; ; ; ; ; ; ; Peter Vassilatos (UChicago);Valerie Reeves (Broad) ;Victoria Smith (Broad) ;Candace Patterson (Broad) ; Manisha Ray (Seven Bridges); Stefan Nikolić (Seven Bridges); Željko Vrbaški (Seven Bridges); Jeremy Costanza (Sainte-Justine); ; Yuankun Zhu		

	(CHOP/KFDRC); Manisha Ray (SB)
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Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	•	Brian/Jack - 5 min
<p><b>RAS Milestone 3 → Timeline!</b></p> <ul style="list-style-type: none"> <li>• We normally don't talk about RAS in NCPI Sys Interop but we thought it would be useful</li> <li>• Today's call will look at RAS milestone 3 support in platforms represented on this call (and in NCPI) and check in with implementers on their sub-milestone/timeline for this activity</li> <li>• Goal is to understand dependencies between groups and, if possible, develop a rough consensus timeline across implementing systems (including those in NCPI).</li> <li>• Who do we have on the call from each group? <ul style="list-style-type: none"> <li>○ U. Chicago - AnVIL, BDCat, CRDC, GMKF - yes!</li> <li>○ Broad - AnVIL, BDCat, CRDC - yes!</li> <li>○ SBG - BDCat, CRDC, GMKF - yes!</li> <li>○ NIH NCBI - no?</li> <li>○ NIH RAS - no?</li> <li>○ Kids First (Cavatica) - yes!</li> <li>○ PIC-SURE - yes!</li> </ul> </li> <li>• Goal for today is to develop a shared understanding of the RAS <a href="#"><u>Milestone 3</u></a> timeline <ul style="list-style-type: none"> <li>○ Compare across groups and IC stacks (AnVIL, BDCat, CRDC, GMKF, NCBI SRA/dbGaP)</li> <li>○ Identify cross team/stack dependencies</li> <li>○ <b>Can we construct a <a href="#"><u>common timeline</u></a> and dependencies across teams???</b></li> </ul> </li> </ul>	• Brian, Jack, and teams - 50 min	

<ul style="list-style-type: none"><li>• Ahead of this meeting, please feel free to add your group's <a href="#">timeline at the bottom of the Milestone 3 document</a></li></ul>		
<b>Next Steps</b>		Brian/Jac k - next steps in Sys Interop

## Notes:

- Red Flag: the teams do not want to see multiple passports being handled by the clients. Alex V. in Gen3 team does not want to see a policy where RAS passports cannot be repackaged... key issue to discuss with RAS team
    - In the meantime, we can still use the RAS passport directly
    - SBG... not necessary for Milestone 3 but not going to oppose repackaging
    - Broad/Doug... agrees with SBG but would like to push for it in the spirit of the GA4GH spec
    - Eric Kids First... ability to access v1.1 passport is needed for milestones in that project. Wants to make sure can go directly to RAS.
    - Zeljko SBG... thinking about the downscoping of passports...
  - **AI: Repackaging**
    - Talk to RAS team about this for developer/consortium whitelists support ... want Gen3 visas in addition to RAS visas to cover devs/consortium whitelist and dbGaP authorizations respectively.
    - What is the alternative? Do we send Gen3 passports for devs and RAS for all others? So DRS will support multiple passports?
  - **AI: Timeline for RAS Passport → Gen3 DRS** (w/ Mutual TLS for AnVIL/BDCat)

2021-07-16

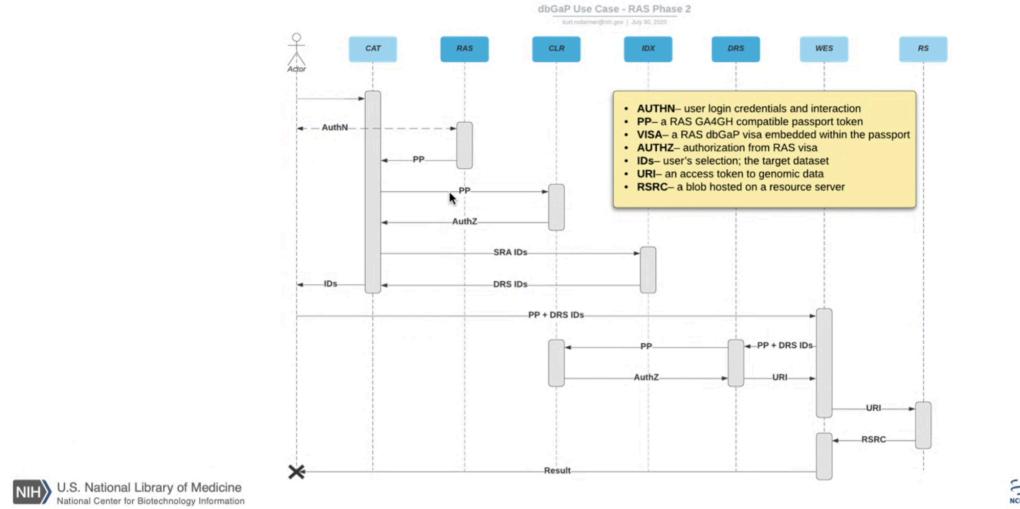
Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	•	Brian/Jack - 5 min
<ul style="list-style-type: none"> <li>Introduce Mike Conway and Charles Schmitt (NIEHS)</li> </ul>		Jack - 5 min
<ul style="list-style-type: none"> <li>Earlier meeting time once a month <ul style="list-style-type: none"> <li>Starting 7/30</li> <li>8am PT/ 11am ET</li> <li>Discussion is RAS milestone 3 timeline across teams</li> </ul> </li> </ul>	Teresa will send calendar invites for this today	Teresa/Brian - 5 min
<ul style="list-style-type: none"> <li>How systems can talk to the NCBI DRS server + SRA</li> </ul>	•	Kurt Rodarmer - 30 min
<ul style="list-style-type: none"> <li>Status update on making UDN-KF into a formal NCPI use case</li> </ul>	•	Jack - 10 min
<ul style="list-style-type: none"> <li>AOB</li> </ul>		

**Notes:**

- NIEHS
  - Gen3 prototype
  - Has a DRS server for IRODS
  - Bindings between Gen3 and IRODS
  - Passports
  - NIEHS data ecosystem effort
  - Working on a new Sys Interop use case, search use case and potentially others
- UDN-KF
  - Undiagnosed disease network
  - Great dataset
  - Goal to enable to co-analyze the BAMs with those in Kids First and run in Cavatica
  - Move 4000 genomes to hot storage for active use
  - NCBI use case!!
  - Using Passports + DRS → dbGaP → Cavatica for analysis
- dbGaP + Passports

- Vision

## The Basic Interaction



- Focus on dbGaP not SRA per se
- Flow
  - Run Selector ... find data and get Passport
  - CLR: clearinghouse examines passport... examines the visas... tells run selector of what can be displayed to the user
  - Run selector... produces GA4GH selection object (soon to be a standard)
  - IDX translates the SRA IDs → DRS IDs
  - Passport + DRS IDs sent to DRS or WES server
  - Clearinghouse called by DRS server and passport is examined
  - DRS server then converts to URI and access

## GA4GH

- Extends OIDC/OAuth2
  - User is no longer RO
  - Breaks from OAuth2
- UserInfo
  - Overloaded for visas in v1.0
  - Overloaded for passport in v1.1
  - Revert to OIDC for later
- Passport endpoint
  - Slated for v1.2 (not yet official)
- Access token
  - Still for userinfo endpoint
  - Also valid for passport endpoint
- Passport definition
  - Ambiguous in v1.0
  - Still argued in v1.1

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- - Passport definition clarification

- RAS is implementing the 1.1 version of Passports... still going to land an official 1.2 in GA4GH

## RAS

- Implements GA4GH v1.1 as base
- Implements NIH security measures in addition
- OIDC
  - NIH AD IdP
  - eRA
  - login.gov
- Userinfo
  - Definition of passport v1.1
  - Will deprecate v1.0
- Access token
  - Only for userinfo endpoint today
- Passport definition
  - Self-contained JWT with visas
- Law of the land

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- Future... moving to a token endpoint rather than userinfo

## Visas

- Security tokens
  - Non-forgeable, unalterable, provably authentic
  - Carry NIH signature
  - Break with OAuth2 flow
- Contain a formal GA4GH piece
  - Identifies object to any GA4GH-compliant software
- dbGaP visa 1.0
  - Custom representation for NIH
  - Sequence of consent records
  - Unbounded record count
  - Candidate for improvement
- Carry authorization information
  - 'sub' identifies authorized user

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# Passports

- Flavors
  - Self-contained
  - Indirect
- Self-contained
  - GA4GH v1.1
  - Zero or more visas
  - "Exchange" for indirect
- Indirect
  - GA4GH v1.2? Later?
  - Small size
  - "Exchange" for self-contained
- Carry user information
  - Recent authentication
  - 'sub' identifies authorized user

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- - We are currently using self-contained passports... all the visas embedded
  - Later introduce an "indirect" version... similar to what's used in OAuth flows.
    - Heavy for brokers... may not make it in 1.2
    - Still a JWT... the visas are indicated by an opaque query key instead of being embedded
    - Can be exchanged for a full passport (or a full passport for an indirect)
- 1.2 Passport features
  - Downscope
  - New endpoint
  - Indirect... maybe... but heavy for brokers... state needs to be stored for a user and that could impact scalability
- RAS passport... param to an API to represent access to data... param to an overall message... that's why POST is good... since that API might need Passport + Selection Object for example.
  - AI: look at how this works with DRS for example and the prototype code below.

## RAS for APIs

- APIs are not human
  - Modus itinerantur is HTTP
- OIDC authentication
  - Not involved
  - Headless operation cannot involve user
- API receives passport
  - API contacts RAS Clearinghouse (CLR)
  - CLR validates token
  - CLR extracts appropriate content
- Passports carry permissions
  - Permissions are assigned to user
- Tokens do not prove bearer identity
  - Theoretically impossible

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## RAS for SRA/dbGaP

- SRA Toolkit
  - CLI for accessing objects via their ids
  - Use passport and selection object
- SRA Data Locator (SDL) and DRS
  - APIs on "locate.ncbi.nlm.nih.gov"
  - Receive query + passport
  - Send passport to Clearinghouse (CLR)
    - Every request
  - Interpret query against returned permissions
  - Generate URI(s) to objects

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 NCBI

- Client verification not possible through tokens...
- These are bearer tokens... so they don't prove client identity
- But passports are all about data access...

# DRS

- URL=<https://locate.be-md.ncbi.nlm.nih.gov/ga4gh/drs/v1/objects/<md5>/access/<md5>>
- Curl command:
  - curl -H "Content-Type: application/json" -d "{\"ga4gh\_passport\": \"<passport-jwt>\"}" \$URL
- Service receives a POST request, with a JSON message
  - Trivial today – only contains a RAS passport
  - Poised to contain a GA4GH selection object
- RAS token is sent to internal clearinghouse
  - Token is thoroughly examined for signature and well-formedness
  - RAS visa(s) is(are) identified and examined
  - dbGaP permissions are returned to DRS today (may change slightly in future)
- DRS intersects permission set required by id(s) against permission set in passport
- Returns cloud-signed URL into AWS S3 or GCP GS bucket

- In the future, can contain additional content in the post... think selection object

# INSDC identifiers

- SRA uses INSDC identifiers
  - International Nucleotide Sequence Database Collaboration with DDBJ, EBI, NCBI
  - Same identifier recognized by multiple location services
  - Identifies logical working object rather than static physical object
  - INSDC SRA model supports
    - Study
    - Sample
    - Experiment
    - Run
  - All objects are DRS bundles in the NCBI SRA
  - A run bundle contains several objects
    - Original submissions (bam, fastq, etc.)
    - SRA VDB representation
    - VCF, etc.

- logical/working object... a container... think of it as a "bundle"
- DRS are pointers to physical objects
- How DRS is working with SRA... SRA is using INSDC

## IDX service

- Accepts INSDC identifiers on input
- Returns DRS identifiers on output
  - DRS identifier uses md5
- Any changes under the INSDC containers (and they are legal) generate new DRS ids
  - DRS identifiers require capturing a snapshot of the SRA object at a moment in time
  - IDX is not currently notified upon update to the SRA
  - IDX therefore generates ids on-the-fly and modifies its database as needed
  - Likely to change this behavior in the future for scalability



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- Convert between INSDC space and DRS space
- Linked to database record... IDX → DRS mapping

## dbGaP DRS caveats

- Richer set of error conditions
  - HUP (hold until published)
  - Withdrawn submissions
  - File permanently removed
  - File is offline
- Cold Storage
  - Hot storage is expensive – who pays for it?
  - Can some be kept offline in cheaper storage?
  - Cost of retrieving into hot storage – who pays for that?
  - Nearly all original submission (i.e. BAM) files have been removed to cold store
  - Ergo nearly all use of dbGaP DRS in July 2021 has to return a 410 "File unavailable" response



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- What about the retry later feature of DRS spec? Does that work?
- 
- Questions
  - What is the state of the dbGaP DRS server... production?
    - Been deployed since December... can use a real RAS passport but only in dev. Official rollout not yet.
  - RAS passport for DRS access? Resigned passport? Client mutual TLS auth?
    -
  - For 1.2 of the passport spec, what changes for?

- Login flow code?
  - DRS post request?
  - A: See above... focus on selection object and new token endpoint

■ How are URLs handed back? Signed URLs? Cost for egress?

  - A: Yes, signed URLs
  - AWS public dataset program for now pays egress
  - In the future, looking at moving away from ACL and moving to tokens for all access... DRS servers that can use these data access tokens to pay for egress... need more partnership from the clouds.
  - SDL... SRA version of DRS... the SRA toolkit gathers a token from cloud env... sends the token to the SDL... here's a token that supports claim I'm operating in a cloud env... and therefore can calculate costs, regions, etc.
  - Something to look at for DRS 1.3

■ Indirect Passports... can they "fit" in the Auth Bearer token header?

  - A: Yes, designed for systems that must use headers
  - Still a JWT

■ Can we add the dbGaP DRS server to the sample code:  
<https://github.com/broadinstitute/ras-passport-example>?

  - Fully functional version of the DRS server in GitHub now
  - AI: followup with Kurt on this

2021-06-18

Agenda Item	Action Items	Owner
Introduction and agenda overview	•	Brian 5 min

DRS + SRA	<ul style="list-style-type: none"> <li>• Move this to the next meeting</li> </ul>	Kurt
Use Case Health Check with Asiyah <ul style="list-style-type: none"> <li>• See <a href="#">slides</a></li> </ul>		Asiyah

## Notes:

- Use cases - Asiyah
  - Last meeting, need to understand the state of the use cases
  - Goal: active use cases → presentations in october
  - Use case plan
    - teams = research + platform need
    - 1 pager per use case
      - Co-chairs... help identify tech focus and link to interop/Sys Interop
    - Funding source
    - Less active/blocked use case, on the shelf until ready
  - October Meeting for NCPI
    - NCPI meeting is NCPI only
  - 2021 H2 use cases
    - Manning/O'Connor → presented in Spring, publishing now 1) whitepaper and 2) video showing how it was done on the NCPI portal (talk to Tim about this)
    - Taylor/Heath → presented in Spring, publishing now. 1) publication and/or 2) video tutorial ... real scientific analysis... joint calling... harmonized dataset about re-hosting on BDCat... primary goal, publication on analysis
    - Hirschi, Schatz / DiGiovanna → we need the one pager... telomere to telomere work
    - Almeida → early on... maybe present concept at Fall meeting. **Need 1 pager.**
    - Lyons → PIC-SURE early on... maybe present concept at Fall meeting. **Need 1 pager. Likely to be ready in October.**
    - Wilson/O'Connor → working on meeting... but concerns about cost if we scale up.
      - How do we pay for scale up across systems to run \*all\* data (or most)
      - How do we hand data back to systems/projects
    - Xihong Lin → whole genome pipeline. Has a one pager. Similar concern about annotation on whole genomes...
      - AnVIL and BDCat team... discuss funding via STRIDES
    - Take a look at the previous two, we might be able to execute them together

- Jinling Liu → need a one-pager.
  - Kurt/Valerie → Write a one-pager.
- GitHub Org
  - XenHub Tool
  - Connect GitHub and project and tasks there
  - FHIR/Outreach working group... have an NCPI repo in GitHub to track issues and code
  - AI: Outcome, rename the NCPI-FHIR org to "NIH-NCPI" and we can all use this.
- Next time
  - DRS + SRA repo → Kurt
  - GitHub Org: See how the transition to a single GitHub org for NCPI is going.  
Allison Heath and Dave Rogers
  - Use Cases: get an update on the new use cases
  - Videos: Brian and Allison to work on video tutorials
    - Brian follow up with Tim
    - Allison check with her team to see if they can do it
    - Dave has an NCPI YouTube channel, work with him on this

2021-05-21

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	•	jack - 5 min
<ul style="list-style-type: none"><li>• PCGC Use Case</li></ul>	•	Allison Heath
<ul style="list-style-type: none"><li>• DRS + ACLs<ul style="list-style-type: none"><li>○ Kids First use case<ul style="list-style-type: none"><li>■ ACL not provided as metadata currently</li><li>■ Where should ACL value live?</li><li>■ Is this being talked about in DRS? How are others planning to do this</li></ul></li><li>○ Kurt - ACLs and tokens are oil/water<ul style="list-style-type: none"><li>■ Use tokens as access control mechanisms (not ACLs).</li><li>■ Would rather see token used in access through clearing house</li><li>■ Important to realize if token says it's a RAS token - all your system has to do is recognize that it's a RAS user and you do not have to identify that user. Trust is in the RAS token</li><li>■ Access to content is different from access to system -</li></ul></li></ul></li></ul>		

handled with different mechanism ■ Ask DRS server for access to object (not ACL)		
• DRS + hashes		
Use case update • Trying to align so use cases have both platform and researcher champion		Jack - 10 mins
Proposal to have alternating meeting times • Once a month at current time (15:00 ET) • Once a month earlier (EU Friendly time)	• Reschedule the next meeting to the earlier time	Jack - 3 mins

**Notes:**

Next Meeting: RAS Milestone 3

2021-04-23

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	<ul style="list-style-type: none"><li>•</li></ul>	Brian/Jack - 5 min
<ul style="list-style-type: none"><li>• NCPI May meeting (<a href="#">agenda</a>)<ul style="list-style-type: none"><li>○ Sys Interop WG Update <a href="#">Slides</a>: Focus on the presentations coming up for the May NCPI meeting<ul style="list-style-type: none"><li>■ What have we finished for the meeting?</li></ul></li><li>○ The Future of Interop <a href="#">Slides</a>:<ul style="list-style-type: none"><li>■ <a href="#">FunRetro board</a> help What do we want to focus on for the next year?</li><li>■ Finalize votes by 4/26<ul style="list-style-type: none"><li>● <a href="#">October meeting's FunRetro board</a> for reference</li></ul></li><li>■ <i>Let's populate/vote on the board together</i></li></ul></li></ul></li></ul>	<ul style="list-style-type: none"><li>• Jack/Brian share slides next week for feedback</li><li>• Kurt contribute to slide regarding DRS and auth</li><li>• Have votes in Easy Retro board finalized by 4/26</li></ul>	Brian/Jack

## Notes:

- Valentina asked will people know why RAS milestone 3 is so important (probably not)
  - Kurt will add slide regarding DRS and auth
  - Tanja - now RAS will have 10 minutes at start of BO session

- Have votes in Easy Retro board finalized by 4/26
  - Valentina wants to ensure that what is presented on future of intero align with what we are funded for
    - What is the timeframe when talking future of interop?
      - Jack is thinking 6-18 months
      - Valerie - the field is so in flux that envisioning beyond 18 months is too stressful

2021-04-09

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	•	Brian/Jack - 5 min
<b>FHIR and PFB</b> <ul data-bbox="251 1288 553 1339" style="list-style-type: none"><li data-bbox="251 1288 553 1305">• Quick update from Ann</li><li data-bbox="251 1309 553 1339">• Last meeting's <a href="#">Slides</a></li></ul>		Ann
<b>Use Case Interop Paper</b> <ul data-bbox="251 1412 855 1497" style="list-style-type: none"><li data-bbox="251 1412 855 1497">• Update from Tim on the status of use case, paper, and if he needs help with any of the general interop content.</li></ul>	•	Tim
<b>Use Case Health check</b> <ul data-bbox="251 1569 678 1630" style="list-style-type: none"><li data-bbox="251 1569 678 1586">• UPDATE:</li><li data-bbox="251 1600 678 1630">• Slides from 12 March 2021 (<a href="#">slides</a>)</li></ul>		Jack
<b>Any Other Business</b> <ul data-bbox="251 1769 855 1852" style="list-style-type: none"><li data-bbox="251 1769 855 1852">• <i>[Kurt] What is the focus? There's been no mentions of DRS, how to interact, etc. DRS is a key aspect along with the AuthZ guidance from RAS.</i></li></ul>		

- Do platforms already have the token from Milestone 1?
  - CFDE is moving in this directions with dbGaP
  - RAS directly to NCBI, pros and cons to this but teams are working through it.
- Milestone 3 is still evolving. Parallel paths but all basically aligned towards the same target
- **Key question (unknown) Can we already test the RAS tokens (which I believe we have or could have from milestone 1) with the NCBI DRS server?**
- RAS's tokens interaction with FHIR servers is another interesting and fruitful topic
  - Robert and Allison lead NCPI FHIR - will be good to investigate mid-term

## **Notes:**

## FHIR/PFB (Ann):

- Query now more generalizable
  - Now interfacing with GMKF DRS Server - how is the AuthZ working? It's a cookie that is working fine on Perl. All the data is open-access

## Use Case Interop (Tim)

- Brian wrote a WDL to download data into Terra workspace.
  - Moving forward on project
  - Nothing new on the paper

2021-03-26

Agenda Item	Action Items	Owner
Introduction and agenda overview	•	Brian/Jack - 5 min
<b>FHIR and PFB</b> <ul data-bbox="252 582 858 861" style="list-style-type: none"><li data-bbox="252 582 858 648">• We have been investigating how/if FHIR &amp; PFB can be used together</li><li data-bbox="252 648 858 690">• Goal is to understand when to use one vs. another</li><li data-bbox="252 690 858 819">• As a proof of concept we have developed a FHIR → PFB script to show how FHIR queries can be translated to PFB for use in workspaces that support that handoff mechanism</li><li data-bbox="252 819 858 861">• <a href="#">Slides</a></li></ul>	•	Ann
<b>Use Case Interop Paper</b> <ul data-bbox="252 882 845 1098" style="list-style-type: none"><li data-bbox="252 882 845 969">• Tim Majarian (Broad) is working on a paper describing their interop use case</li><li data-bbox="252 969 845 1098">• Update from Tim on the status of use case, paper, and if he needs help with any of the general interop content.</li></ul>	•	Tim
<b>Next call agendas</b> <ul data-bbox="252 1119 820 1442" style="list-style-type: none"><li data-bbox="252 1119 820 1313">• <b>4/9</b> - multiple topics:<ul data-bbox="344 1205 820 1313" style="list-style-type: none"><li data-bbox="344 1205 820 1248">○ Use Case Healthcheck; Portal checkup - Jack</li><li data-bbox="344 1248 820 1290">○ FHIR-&gt;PFB converter update - Ann</li><li data-bbox="344 1290 820 1313">○ Touch base on the paper - Tim</li></ul></li><li data-bbox="252 1313 820 1334">• <b>4/23</b> - NCPI meeting prep</li><li data-bbox="252 1334 820 1355">• <b>5/3-4</b>: NCPI meeting</li><li data-bbox="252 1355 820 1398">• <b>5/7</b>: skip?</li></ul>		

## Notes:

## FHIR->PFB Proof of concept

- Next steps
    - Work with Jessica and team to test BulkFHIR and see the work they are doing for BDCat
    - Work with Allison H and team to see how we can leverage this prototype eventually for GMKF portal -> workspace handoff

Tim and Interop

- Work is being modified now

- Orchid trial data
  - Summary stats
  - Analysis done in Cavatica... transferred to Terra... workaround without interop
  - Interop paper
    - Setup as a research paper
    - Looking for folks on the call to contribute
    - Use his use case as a success story, show how interop tech has been leveraged
    - How does interop empower researchers? Key facet of the paper
  - Help
    - Allison, Asia for feedback
    - Needs help with background, systems being used, how they work, interop standards, etc.
    - Also need help with Governance section
    - AI: Can post the doc in a week... and then tag folks for help

2021-03-12

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	•	Brian/Jack - 5 min
Use cases health check ( <a href="#">slides</a> ) <ul style="list-style-type: none"><li data-bbox="251 1539 802 1556">• IDC CRDC tile server for autoML image analysis<ul style="list-style-type: none"><li data-bbox="344 1564 802 1581">○</li></ul></li></ul>	•	Jack - 10 mins
<b>NCPI meeting (GLOBAL) call for feedback</b> - Brian's strawman based on a meeting Tanja led yesterday <ul style="list-style-type: none"><li data-bbox="251 1704 802 1721">• Why are we here<ul style="list-style-type: none"><li data-bbox="344 1729 802 1746">○ What is our mission?</li></ul></li></ul>	What else do people want to see so we can get that info to Tanja? <ul style="list-style-type: none"><li data-bbox="928 1725 1286 1742">• Governance may need more time in Day one or in a breakout session.</li><li data-bbox="928 1744 1286 1761">• Data interop and functional</li></ul>	Group - 10 mins

<ul style="list-style-type: none"> <li>○ How are we doing from a researcher perspective? What's gotten better? Remaining needs?</li> <li>● State of work by each team <ul style="list-style-type: none"> <li>○ What happened to the goals from 6 m ago?</li> </ul> </li> <li>● Working groups to dive into speciality topics (longer, more multi-track) <ul style="list-style-type: none"> <li>○ Cloud Costs / Benchmarking</li> <li>○ Data + RAS interop</li> <li>○ Search</li> <li>○ Distributed compute</li> <li>○ Other efforts</li> <li>○ User education</li> </ul> </li> <li>● Report back and brainstorm next 6 month goals</li> </ul>	<ul style="list-style-type: none"> <li>equivalence among tools/WF/pipelines. <ul style="list-style-type: none"> <li>○ Scope can be scary</li> <li>○ Priorities</li> <li>○ Focus</li> </ul> </li> <li>●</li> </ul>	
<p><b>Upcoming Meetings Review</b></p> <p>Can we rotate through use case champions and standing topics in 2021?</p> <ul style="list-style-type: none"> <li>● Potential topics <ul style="list-style-type: none"> <li>○ Paper update from Tim</li> </ul> </li> <li>● Monthly check ins on <ul style="list-style-type: none"> <li>○ PFB + FHIR</li> <li>○ Use cases</li> <li>○ Portals</li> <li>○ Paper while it's being worked on</li> </ul> </li> <li>● 3/?? - Data Model <ul style="list-style-type: none"> <li>○ Where do we stand on our "light" data model?</li> <li>○ Are we still aligned on purpose?</li> <li>○ Let this be driven by new portals</li> <li>○ Health check on use cases -- Jack</li> <li>○ Next steps for light data model</li> <li>○ Tim - update on paper</li> </ul> </li> <li>● 3/26 - <ul style="list-style-type: none"> <li>○ Update on paper by Tim</li> <li>○ FHIR + PFB <ul style="list-style-type: none"> <li>■ Update on technical] progress</li> <li>■ What data/FHIR instances can we connect to? NCPI FHIR server from GMKF?</li> <li>■ How close are we to using this for a "handoff" to a workspace environment?</li> </ul> </li> </ul> </li> <li>● 4/9 - <ul style="list-style-type: none"> <li>○ Portals <ul style="list-style-type: none"> <li>■ FHIR-&gt;PFB prototype with GMKF</li> <li>■ Notebook for manifest -&gt; PFB when the portal won't support PFB</li> </ul> </li> </ul> </li> </ul>		

- Use cases
  - Quick update
- May meeting
  - What are we presenting
  - What do we want to get out of the meeting?
- **4/23** - NCPI meeting prep
  - Share slides or overviews
- **5/3-4:** NCPI meeting
- **5/7:** skip?

## Notes:

2021-02-26

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	<ul style="list-style-type: none"><li>• </li></ul>	Brian/Jack - 5 min
<b>New participants. What new data repos? What new portals for handoff?</b> <ul style="list-style-type: none"><li>• Update of current portals - where are they with PFB handoff</li><li>• Collect new portals/datasets we want to work with</li><li>• <a href="#">Doc</a> to work in</li></ul>	<ul style="list-style-type: none"><li>• </li></ul>	Brian/Jack - 30 min
<b>Recap of NCPI Oversight meeting</b>	<ul style="list-style-type: none"><li>• <a href="#">NCPI Interoperability considerations</a></li></ul>	Brian/Jack - 5 min

<ul style="list-style-type: none"> <li><a href="#">A GTEx Interoperability Use Case Across AnVIL/KF/CRDC/BDC/CFDE</a></li> <li><i>What are the blockers to connecting all workspaces to all portals/datasets?</i></li> </ul>		
<b>Recap of CRDC quarterly meeting</b> <ul style="list-style-type: none"> <li>Issues that came up <ul style="list-style-type: none"> <li>Identifiers and linking the same participant/donor across programs</li> <li>Metadata standards</li> <li>Search across systems</li> </ul> </li> <li><i>Points to future work/issues as search across IC stacks becomes an area of focus</i></li> </ul>		Brian/Jack - 5 min
<b>Upcoming Meetings Review</b> <p>Can we rotate through use case champions and standing topics in 2021?</p> <ul style="list-style-type: none"> <li>2/26 - TODAY - New participants. What new data repos? What new portals for handoff? <ul style="list-style-type: none"> <li>Update of current portals - where are they with PFB handoff? What blockers exist</li> <li>Collect new portals/datasets we want to work with</li> </ul> </li> <li>3/12 - Data Model <ul style="list-style-type: none"> <li>Where do we stand on our "light" data model?</li> <li>Health check on use cases -- Jack</li> <li>Next steps for light data model</li> <li>Tim - update on paper</li> </ul> </li> <li>3/26 - FHIR + PFB <ul style="list-style-type: none"> <li>Update on technical] progress</li> <li>What data/FHIR instances can we connect to? NCPI FHIR server from GMKF?</li> <li>How close are we to using this for a "handoff" to a workspace environment?</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li><b>RAS on FHIR 3/9 - in NCPI FHIR working group</b></li> </ul>	
<b>Call for any other business</b>		

### Notes:

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2021-02-12

Objective	Working Group call	Time	Bi-weekly, Fridays 12pm PT
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Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	•	Brian/Jack - 5 min
<b>Champions</b>	<ul style="list-style-type: none"> <li>Who will be champions for which effort? <ul style="list-style-type: none"> <li>New portals + datasets - Brian+Jack, anyone else to help? <ul style="list-style-type: none"> <li>... add here...</li> <li>CFDE (amanda) is looking at using DRS to export to Cavatica/Terra in the next year</li> </ul> </li> <li>FHIR+PFB prototype - Jiaqi Liu (U. Chicago)</li> <li>Blog post/whitepaper - Tim Majarian (Broad) <ul style="list-style-type: none"> <li>Describing interop as a whole</li> <li>If people are interested in helping out please list your name here <ul style="list-style-type: none"> <li>...</li> <li>...</li> </ul> </li> </ul> </li> <li>Use cases - Jack + existing use case champions</li> </ul> </li> </ul>	Brian/Jack/ Champions - 10 min
<b>FHIR + PFB Exploration</b>	•	Brian/Ann - 30 min

<ul style="list-style-type: none"> <li>○ Start working on a <a href="#">tech plan</a>, breaking down tasks, starting to think timeline, and getting volunteers</li> <li>○ <a href="#">PFB FHIR GA4GH</a></li> <li>○ From chat: "How do you all see this discussion progressing? Always as a joint group? What happens separately in FHIR group vs Interoperability? Does the past WG structure still work or does it need to adapt?"</li> </ul>		
<p><b>Upcoming Meetings</b></p> <p>Can we rotate through use case champions and standing topics in 2021?</p> <ul style="list-style-type: none"> <li>● 2/26 - New participants. What new data repos? What new portals for handoff? <ul style="list-style-type: none"> <li>○ Update of current portals - where are they with PFB handoff? What blockers exist</li> <li>○ Collect new portals/datasets we want to work with</li> </ul> </li> <li>● 3/12 - Data Model <ul style="list-style-type: none"> <li>○ Where do we stand on our "light" data model?</li> <li>○ Health check on use cases -- Jack</li> <li>○ Next steps for light data model</li> </ul> </li> <li>● 3/26 - FHIR + PFB <ul style="list-style-type: none"> <li>○ Update on technical progress</li> <li>○ What data/FHIR instances can we connect to? NCPI FHIR server from GMKF?</li> <li>○ How close are we to using this for a "handoff" to a workspace environment?</li> </ul> </li> </ul>		

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**Notes:**

2021-01-29

Objective	Working Group call	Time	Bi-weekly, Fridays 12pm PT
Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	<a href="https://meet.google.com/grh-oxfb-tee">https://meet.google.com/grh-oxfb-tee</a>

<b>Participants:</b> <b>SIGN IN: Name &amp; Affiliation</b>	; ; ; Robert L. Grossman (UChicago); Gina Kuffel (UChicago) ; ; ; ; ; ; ; Amanda Charbonneau (CFDE) ; ; ; John Cheadle (BDC) ; Bill Longabaugh (ISB); Valentina Di Francesco (NHGRI); ; Asiyah Lin (NHGRI) ; ; ; Sai Lakshmi Subramanian (SB); Stephen Mosher (JHU) ; ; Natalie Kucher (NHGRI); ; Michael Lukowski (U Chicago); ; Nicole Bolliger (Broad) ; Jay Ronquillo (NCI); Jonas Almeida (NCI) ; Kurt Rodarmer (NCBI) ; ; Pauline Ribeyre (UChicago); Lynette Lilly (UChicago) ; Alex VanTol (UChicago); Brian Walsh (OHSU); Danielle Pillion (PIC-SURE), Jason Stedman (PIC-SURE); Jessica Lyons (PIC-SURE)
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Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	•	Brian/Jack - 5 min
<b>Review Use Cases</b> <ul style="list-style-type: none"> <li>• Use case <a href="#">round up</a></li> <li>• Update key details of <a href="#">use cases</a></li> <li>• <i>Do we have any new use cases since our last review???</i> <ul style="list-style-type: none"> <li>○ Jonas added one</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Can we get updates from use case champions... flag those that want to update in the May meeting</li> <li>• Can we get an NCBI-based used case?</li> </ul>	Jack - 15 min
<b>Review Priorities</b> <ul style="list-style-type: none"> <li>• Review <a href="#">priorities</a> from last meeting, what use case would support priorities? <ul style="list-style-type: none"> <li>○ Overall themes... thumbs up? Missing anything?</li> <li>○ FHIR + PFB - starting to write up <a href="#">tech plan</a>... key questions... start timeline... <i>and pick it up on 2/12</i></li> <li>○ New portals, new datasets... focus on this on 2/26</li> </ul> </li> <li>• Plan for May meeting <ul style="list-style-type: none"> <li>○ Starting a <a href="#">tech timeline</a> for 2021</li> <li>○ Let's keep it higher level today, goals for May</li> <li>○ Refer to <a href="#">Sys Interop 2021 roadmap</a></li> <li>○ <a href="#">CHOP FHIR Search Slides</a></li> </ul> </li> </ul>		Jack/Brian/ Group - 20 min
<b>Upcoming Meetings</b> Can we rotate through use case champions and standing topics in 2021? <ul style="list-style-type: none"> <li>• <del>1/29 - Review use cases, existing and new; Plan for may meeting</del> <b>DONE</b></li> <li>• 2/12 - Plan for FHIR+PFB testing/evaluation <ul style="list-style-type: none"> <li>○ PFB+DRS discussion of goals</li> <li>○ starting to work on a shared <a href="#">technical timeline</a>... identifying groups</li> </ul> </li> </ul>		Brian - 5 min

<ul style="list-style-type: none"> <li>• 2/26 - New participants. What new data repos? What new portals for handoff? <ul style="list-style-type: none"> <li>◦ Update of current portals - where are they with PFB handoff</li> <li>◦ Collect new portals/datasets we want to work with</li> </ul> </li> <li>• 3/12 - Data Model <ul style="list-style-type: none"> <li>◦ Where do we stand on our "light" data model?</li> <li>◦ Next steps for light data model</li> </ul> </li> </ul>		
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**Notes:**

2021-01-15

Objective	Working Group call	Time	Bi-weekly, Fridays 12pm PT
Leader(s):	Jack DiGiovanna & Brian O'Connor Teresa Barsanti (notes)	Where	<a href="https://meet.google.com/grh-ox-fb-tee">https://meet.google.com/grh-ox-fb-tee</a>
<b>Participants: SIGN IN: Name &amp; Affiliation</b>	; Alex VanTol (UChicago); Lynette Lilly (UChicago) ;Gina Kuffel (UChicago) ; ;Nicole Bolliger (Broad) ; Jiaqi Liu (UChicago); ; Amanda Charbonneau (CFDE); Stephen Mosher (JHU); ; ; Michael Lukowski (U Chicago); ; ;John Cheadle (BDC) ; ; ; ;Jenn Vessio (JHU) ; ; ;David Pot (ISB-CGC, GDIT); Jessica Lyons (HMS); ; Jason Stedman (HMS); ; ;Jay Ronquillo (NCI); Jonas Almeida (NCI); Allison Heath (CHOP) ; Bill Longabaugh (ISB); Kurt Rodarmer (NCBI); ; Sai Lakshmi Subramanian (SB); Erika Kim (NCI), Valentina Di Francesco (NHGRI), Brian Walsh (OHSU)		

Agenda Item	Action Items	Owner
Introduction and agenda overview	•	Brian/Jack - 5 min
Review <a href="#">Roadmap for 2021</a>		Group / 20 min

<ul style="list-style-type: none"> <li>Let's take some time to explore before we jump back in!!</li> <li><b>Exercise:</b> each attendee answers two questions 1) what is the most important thing for Sys Interop to do in 2021? And 2) what do you want to do for Sys Interop in 2021? (e.g. will you be a use case champion? Develop support for DRS/PFB? etc)</li> </ul>		
<p><b>Upcoming Meetings &amp; Process</b></p> <p>Can we rotate through use case champions and standing topics in 2021?</p> <ul style="list-style-type: none"> <li>1/29 - Review use cases, existing and new; Plan for may meeting</li> <li>2/12 - Plan for FHIR+PFB testing/evaluation</li> <li>2/26 - New participants. What new data repos? What new portals for PFB handoff? <ul style="list-style-type: none"> <li>Update of current portals - where are they with PFB handoff</li> <li>...</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Need to contact former use case champions, arrange for them to attend the 1/29 meeting</li> <li>Invite key FHIR working group members to 2/12</li> <li>Survey potential new participants (portals &amp; DRS)</li> </ul>	Jack / 10 min
<p><b>NCPI Spring Workshop</b></p> <ul style="list-style-type: none"> <li>May 3-4</li> <li>What do we want to discuss at the meeting? <ul style="list-style-type: none"> <li>Answer to FHIR→ PFB question <ul style="list-style-type: none"> <li>Have clear guidance on this</li> <li>Querying for PCGC data</li> <li>CHOP - possible use case</li> <li>Some uses cases will be just PFB <ul style="list-style-type: none"> <li>We should highlight these as well (Alissa Manning)</li> </ul> </li> <li>What is connection from FHIR WG → this WG?</li> </ul> </li> </ul> </li> </ul>		

## Notes

### Roadmap exercise:

- Jack: 1) excited to see PCGC work and progress... wants to see use cases and making them successful. 2) PFB and FHIR, use cases helping to drive forward (tools to data?)
- Alex Vantol: 1) PFB and FHIR, push vs. pull. 2) PFB docs on creation.
- Gina Kuffel: 1) flow, querying FHIR->PFB, be able to consume that to Gen3 and other workspaces. 2) tooling and FHIR resources
- Jiaqi Liu: 1) RAS focus, Gen3 systems, supporting passports with DRS
- Lynette Lilly: new to the Gen3 team, welcome!!
- Nicole: RAS and passport
- Amanda Charbonneau: Common Fund Data Ecosystem. 2) start incorporate systems into CFDE
- Stephen Mosher: new to the program (AnVIL)
- Michel Lukoswski: PFB and DRS... how do bundles work.
- John Cheadle: BioData Catalyst, works on common metadata model... looking for use cases for model extensions

- Jenn Vessio:
- David Pot: understanding PFB use case across CRDC. Possibly derived datasets they host. Get use case (ISB use case) working with RAS
- Jessica Lyons: looking at the use cases ... clinical data exchange across platforms.
- Jason Stedman: focus on use cases that use data across systems, showcase them to the community. All of it... both clinical/pheno data and genomic data
- Jay Ronquillo: NCI, new to the group. NCI data scholar. Focus on CRDC and Cancer Data Aggregator... search, integration of datasets across these systems
- Jonas: expect to be able to use a federated ecosystem for federated learning. Interested in what comes after Docker. Policy issues. Possibility of use case for sys interop
- Allison Heath: wrapping up PCGC use case. RAS deployed across systems. Kids First + Terra integration. Wrapping up pipeline work that Jack mentioned. PFB and FHIR. Another angle on FHIR, federated search across FHIR... NLM tools for cohort building across FHIR. CFDE, looking to identify a use case to help drive both Sys Interop and CFDE... GTEx data and harmonization
- Bill Longabaugh: IDC. PFB. RAS use case for ISB, making GA4GH standards group aware.
- Kurt Rodarmer: Client side, RAS support across the board. FHIR support with that as well. On RAS, work out how tokens are supposed to interop between systems. GA4GH space, moving ahead the next spec of Passports 1.1. DRS server for dbGaP and SRA. Real world issues that need to be addressed.
- Sai Lakshmi: Seven Bridges, cancer genomics cloud. CRDC, handoff mechanism, other recommendations from Sys Interop. Realize use cases, GTEx + TCGA data etc. Helping team CFDE efforts with Kids First too.
- Erika Kim: CRDC use cases.. Imaging, proteomic, clinical. Expand to these.
- Brian Walsh - Continue workign with PFB export from Gen3 And FHIR to PFB
- Marcia - Use cases CRDC
- Maia- PCGC use cases
- Asiyah- Help NCPI to move forwards
- Valentina - have deadlines for May workshop

## 2020-12-04

Objective	Working Group call	Time	Bi-weekly, Fridays 12pm PT
Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	<a href="https://meet.google.com/grh-ox-fb-tee">https://meet.google.com/grh-ox-fb-tee</a>
Participants: SIGN IN: Name & Affiliation	; ; ; ; ; ; John Cheadle (BDC) ;Nicole Bolliger (Broad) ;Jiaqi Liu (UChicago) ;Gina Kuffel (UChicago) ; Maia Nguyen (CHOP); Bill Longabaugh (ISB-CGC); Anton Nekrutenko (AnVIL); ; Jay Ronquillo (NCI); Jonas Almeida (NCI) ; ; ; Michael Lukowski (U Chicago); Binam Bajracharya(UChicago); ; ; ; Kate Herman (Broad) ; ; ; Sai Lakshmi Subramanian (SB); Garrett Rupp (SB); Jessica Lyons (HMS); Danielle Pillion (HMS) ; Michael Baumann (Broad); ; Alex VanTol (UChicago);		

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	<ul style="list-style-type: none"><li>• </li></ul>	Brian/Jack - 5 min
<b>2021 Priorities/Plans</b>	<ul style="list-style-type: none"><li>• So last time we brainstormed on what's possible for 2021, we got good feedback!</li><li>• Today, let's start putting things on a timeline and see how they feel to the group</li><li>• Can we identify Champions to help move these forward?</li><li>• <a href="#">Slides</a> for us to work in</li></ul>	Group - 50 min
<b>Group Charter</b>	<ul style="list-style-type: none"><li>• We need to hand off our revised <a href="#">Charter</a> to NCPI leadership (along with <a href="#">use cases</a>)</li></ul>	<ul style="list-style-type: none"><li>• <b>Group:</b> please leave comments on <a href="#">Charter</a> and help us flesh out <a href="#">use cases</a>. Also, please leave comments in our <a href="#">Slides</a></li></ul>

## Notes:

- ... .

2020-11-20 -> Cancelled

2020-11-06

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	•	Brian/Jack - 5 min

<p><b>Distill down topics from NCPI meeting -&gt; 2021 Priorities</b></p> <ul style="list-style-type: none"><li>• NCPI meeting <a href="#">agenda</a> and our group's <a href="#">slides</a> for reference</li><li>• <a href="#">FunRetro</a> board for 2021 priorities</li><li>• Data sharing <a href="#">FunRetro</a> board</li><li>• <i>We can work in this <a href="#">slide pack</a></i></li></ul>	<ul style="list-style-type: none"><li>•</li></ul>	50 min
<p><b>Upcoming Meetings</b></p> <ul style="list-style-type: none"><li>• <b>11/20</b> - Continue 2021 planning if needed</li><li>• <b>12/4</b> - Review charter revisions</li><li>• <b>12/18</b> - break, no meeting</li><li>• <b>1/1</b> - break, no meeting</li></ul>		5 min

## Notes:

## **Brainstorming our priorities for 2021:**

- Let's edit here:  
<https://docs.google.com/presentation/d/1sjkrDdnV1Be9jtgcvFbWUShFD1EljCdWbD18quQDfuc/edit#slide=id.p>
  - Notes from reviewing those slides as a group:
    - FHIR item above... a priority to figure out how PFB/FHIR complement each other
    - Bob thinks we need to put in some work here to understand PFB, FHIR, Bulk FHIR (key question - what is the correct format for bulk data?)
    - Impactful if there are more portals, more workspaces
    - Documenting what this effort has done... so this is key to other groups to join (this is already a success "What have you done?" and "How can I join?")
    - Examples with non-controlled access
    - What's the doc needed for the minimal interop, lower barrier
    - NCPI can help (Valentina et al) us define what is success? We want X new portals? Y new datasets? Z new workspaces. If they help us to define these it would be great.

2020-10-23

	Lyons(HMS) ; Amanda Charbonneau (CFDE); ; Mark Jensen (FNLCR); Maia Nguyen (CHOP)Allen Dearry (NCI); Jiaqi Liu (UChicago)
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Previous Action Items	Who / Project	Status	Due Date
Have DRS prefixes in identifiers.org and PFB handoff using valid DRS 1.1 URIs with Compact Identifiers	U. Chicago	Are making API changes to be compatible with identifiers.org ... in review now	Early November
Add staging related info to <a href="#">DRS 1.1 transition doc</a>	U. Chicago	Jiaqi will take a look soon	ASAP
Switch to light <a href="#">PFB</a> by mid-October <ul style="list-style-type: none"> <li>Include dictionary file format so workspaces understand type of file being worked with</li> <li>TBD for BDcat which previous projects will be converted and by when</li> <li><i>fields defined <a href="#">here</a></i></li> </ul>	U. Chicago Kids First	Some of the newer BDC has these fields included.  <b>(AnVIL Model + Data Updated)</b>  Kids first looking at early Nov window to get started	Now for update on U. Chicago, Implementation starting in early Nov, hope to be done before holiday
RAS <ul style="list-style-type: none"> <li>Group - 1) decide approach by next call (9/11) and 2) have <a href="#">technical implementation plan</a> by 9/25 (see CRDC 1.4 doc draft) for Q4</li> </ul>	Group	DONE (Jiaqi is resolving suggestions on doc now)  Ad hoc GA4GH meetings and CRDC regular meeting.	End of Sept
Presentation for Oct 30th NCPI Meeting	Brian, Jack, others	IN PROGRESS	

Agenda Item	Action Items	Owner
Introduction and agenda overview		Brian/Jack - 5 min
<b>Review Previous Action Items</b> <ul style="list-style-type: none"> <li>Since next week is the NCPI meeting this will be helpful to get updates in order to report our successes</li> </ul>	<ul style="list-style-type: none"> <li>All updated above</li> </ul>	Brian/Jack - 15 min
<b>Presentation for NCPI meeting on Oct 30th</b> <ul style="list-style-type: none"> <li><a href="#">Agenda draft</a></li> <li><a href="#">Slides</a> draft</li> <li><i>Let's review the NCPI update draft slides together today</i></li> </ul>	<ul style="list-style-type: none"> <li>David will leave hooks to the slides</li> <li>Reviewing the slides. PLEASE contribute to year 2 priorities especially</li> </ul>	Brian/Jack - 25 min
<b>Quick summary of the CRDC "CBIIT PFB Group"</b> <ul style="list-style-type: none"> <li>Starting Oct 16</li> <li>More Data Portals at the table</li> </ul>		Jack 2 min
<b>Agenda for Upcoming Meetings</b> <ul style="list-style-type: none"> <li>11/6 - recap of NCPI meeting, solidify goals for the next 6 month, next year, circulate a revised Charter to NIH</li> </ul>		Brian/Jack - 5 min

Notes:

- Previous Action Item Review
  - Identifiers.org
  - Staging info to DRS 1.1
  - PFB Light for AnVIL/BDCat
  - RAS switch over for authentication in production
  - RAS plan for Q4
- Presentation for NCPI meeting on Oct 30th (agenda draft)... feedback and ideas
  - 15 min + 5 for questions
  - [Slides](#) draft
  - I think we will want to focus on:
    - [First Year Results](#)
    - [Second Year Goals](#)

2020-10-09

Objective	Working Group call	Time	Bi-weekly, Fridays 12pm PT
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Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	<a href="https://meet.google.com/grh-ox-fb-tee">https://meet.google.com/grh-ox-fb-tee</a>
<b>Participants:</b> <b>SIGN IN: Name &amp; Affiliation</b>	; Teresa Barsanti ; ; ; ; ; ; Gina Kuffel (UChicago); Garrett Rupp (UChicago) ; John Cheadle (BDC); Gina Kuffel (UChicago) ; Binam Bajracharya(Uchicago); ; ; Olivia Isaacs (UChicago); ; ; Nicole Bolliger (Broad); ; Michael Baumann (Broad) ; ; Abby George (CHOP); Maia Nguyen (CHOP); Bill Longabaugh (ISB) ; ; Michael Schatz (JHU) ; Valentina Di Francesco (NHGRI); ; ; David Pot (GDIT); Allen Dearly (NCI); Kate Herman (Broad) ; Amanda Charbonneau; Sai Subramanian (SB); Anton Nekrutenko (AnVIL); Max Barkley (DNAstack); Michael Lukowski (U Chicago); ; ; Johanna Goderre (NCI); Bob Grossman (UChicago);		

Previous Action Items	Who / Project	Status	Due Date
Have DRS prefixes in identifiers.org and PFB handoff using valid DRS 1.1 URIs with Compact Identifiers	U. Chicago	TODO	mid-October
Add staging related info to <a href="#">DRS 1.1 transition doc</a>	U. Chicago	TODO	ASAP
Switch to light <a href="#">PFB</a> by mid-October <ul style="list-style-type: none"> <li>Include dictionary file format so workspaces understand type of file being worked with</li> <li>TBD for BDCat which previous projects will be converted and by when</li> <li><i>fields defined <a href="#">here</a></i></li> </ul>	U. Chicago Kids First	TODO	mid-October
RAS <ul style="list-style-type: none"> <li>Group - 1) decide approach by next call (9/11) and 2) have <a href="#">technical implementation plan</a> by 9/25 (see CRDC 1.4 doc draft) for Q4</li> </ul>	Group	TODO, DONE????	End of Sept
Presentation for Oct 30th NCPI Meeting	Brian, Jack, others		

Agenda Item	Action Items	Owner
Introduction and agenda overview	•	Brian/Jack - 5 min
Report Back on Recent Presentations <ul style="list-style-type: none"> <li>CRDC PFB Talk <ul style="list-style-type: none"> <li>See the <a href="#">slides</a></li> </ul> </li> </ul>	• People would like sample PFB files	Brian/Jack - 10 min

<ul style="list-style-type: none"> <li>○ Opportunity to work with CRDC on PFB support in portals. Next step, understand PFB light fields for each data commons.</li> <li>● GA4GH FASP Talk <ul style="list-style-type: none"> <li>○ See the <a href="#">slides</a></li> <li>○ <a href="#">GA4GH Plenary</a> Sept 29-30th</li> <li>○ A huge amount of excitement around cross-project analysis... fits in perfectly with our researcher use cases and suggests a way FASP and NCPI Systems Interop can work together.</li> </ul> </li> </ul>		
<p><b>Sub-Working Groups</b></p> <p>I want to formalize these in a revised charter.</p> <ul style="list-style-type: none"> <li>● <b>RAS</b> <ul style="list-style-type: none"> <li>○ <b>Who:</b> Jiaqi (lead), Nicole, Doug, Kurt/Craig/Max/Bernick from GA4GH, Sai, Michele, Bill, Allison</li> <li>○ Revise <a href="#">CRDC 1.4 RAS tech plan</a>, make into a memo</li> <li>○ Organize small sub-meetings to continue to push the design forward for a scenario 3 for Q1 and beyond.</li> </ul> </li> </ul> <p><b>Audience:</b> The two memos below should go on the NCPI website such that they are discoverable by the community. Also, send them to NCPI leadership. <b>Primary Goal:</b> other groups can use this on their own. <b>Secondary goal:</b> NCPI leadership sees output.</p> <ul style="list-style-type: none"> <li>● <b>Memo for PFB</b> <ul style="list-style-type: none"> <li>○ <b>Who:</b> Brian, Jack, Garrett</li> <li>○ start from this <a href="#">doc</a>, revise/replace our <a href="#">tech doc</a></li> </ul> </li> <li>● <b>Memo for DRS 1.1</b> <ul style="list-style-type: none"> <li>○ <b>Who:</b> Brian, Jack, Garrett, Brian W (reader)</li> <li>○ start from this <a href="#">doc</a>, revise/replace our <a href="#">tech doc</a></li> </ul> </li> <li>● <b>Charter Revisions 1.1</b> <ul style="list-style-type: none"> <li>○ <b>Who:</b> Jack, Garrett/Gina, Allison, Brian W, Brian O.</li> <li>○ <a href="#">Systems Interop group charter</a></li> <li>○ Updated use cases for Oct 2020- Oct 2021</li> <li>○ GA4GH FASP connection</li> <li>○ Timeline and goals for 2021</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Teresa to help Jiaqi organize smaller, sub-working group meetings for RAS. Bi-weekly? Same goes for other teams (but these are shorter-lived than RAS)</li> </ul>	Group - 15 min
<p><b>RAS</b></p> <ul style="list-style-type: none"> <li>● Anything to discuss in <a href="#">CRDC 1.4 RAS tech plan</a>?</li> <li>● <i>Jiaqi can you lead this discussion?</i></li> </ul>	<ul style="list-style-type: none"> <li>● Turn into a NCPI memo too</li> <li>● SB feedback positive, Jack will connect with Jiaqi offline.</li> </ul>	Jiaqi - 10 min

<p><b>Preparing for Oct 30th NCPI Meeting</b></p> <ul style="list-style-type: none"> <li>• We have 1 more group meeting ahead of the NCPI virtual meeting (3 weeks!)</li> <li>• <b>Agenda draft</b> <ul style="list-style-type: none"> <li>◦ Early Research Adopter Presentations: 15 min each           <ul style="list-style-type: none"> <li>▪ <a href="#">Alisa M.</a></li> <li>▪ Harrison B. BDCat+Kids First</li> <li>▪ Daniel BDCat +Kids First</li> <li>▪ Hoon ISB/CRDC</li> </ul> </li> <li>◦ 20 min Sys Interop update</li> <li>◦ Interoperability Group Discussions           <ul style="list-style-type: none"> <li>▪ RAS &amp; Data Sharing between Platforms</li> <li>▪ Clinical/Phenotypic Data Representation, Search, and Handoff</li> <li>▪ Genomic Analysis Use Cases / Working Groups</li> <li>▪ Imaging Data (Ashok Krishnamurthy &amp; Bill Longabaugh)</li> </ul> </li> <li>◦ Interop Roadmap 6-12 months discussion</li> </ul> </li> </ul>		Group - 10 min
<p><b>Agenda for Upcoming Meetings</b></p> <ul style="list-style-type: none"> <li>• <b>10/23</b> - review Sys Interop presentation for the NCPI meeting on the 30th, NCPI meeting goals setting</li> <li>• <b>11/6</b> - recap of NCPI meeting, solidify goals for the next 6 month, next year, circulate a revised Charter to NIH</li> </ul>		Brian/Jack - 5 min

**Notes:**

2020-09-25

Objective	Working Group call	Time	Bi-weekly, Fridays 12pm PT
Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	<a href="https://meet.google.com/grh-oxfb-tee">https://meet.google.com/grh-oxfb-tee</a>

<b>Participants:</b> <b>SIGN IN: Name &amp; Affiliation</b>	; Alex VanTol (UChicago); ; Michael Lukowski (U Chicago);Gina Kuffel (UChicago) ;Binam Bajracharya(UChicago) ; Allen Dearry (NCI); ; Garrett Rupp (UChicago); ;John Cheadle (BDC3) ; ; ; Mark Jensen (FNLCR); ;David Bernick(Broad/GA4GH) ;Kate Herman (Broad) ;Nicole Bolliger (Broad) ; ; ; ; ;Douglas Voet (Broad) ;Jenn Vessio (JHU) ; ; Bill Longabaugh (ISB) ; ; ; Brian Walsh(OHSU); ;Jason Stedman(HMS); Paul Avillach(HMS); Jessica Lyons (HMS); Danielle Pillion (HMS);,; Manisha Ray (Seven Bridges)
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Previous Action Items	Who / Project	Status	Due Date
Have DRS prefixes in identifiers.org and PFB handoff using valid DRS 1.1 URIs with Compact Identifiers	U. Chicago	TODO	mid-October
Add staging related info to <a href="#">DRS 1.1 transition doc</a>	U. Chicago	Done(?)	ASAP
Switch to light <a href="#">PFB</a> by mid-October <ul style="list-style-type: none"> <li>Include dictionary file format so workspaces understand type of file being worked with</li> <li>TBD for BDCCat which previous projects will be converted and by when</li> <li>fields defined <a href="#">here</a></li> </ul>	U. Chicago Kids First	TODO	mid-October
RAS <ul style="list-style-type: none"> <li>Group - 1) decide approach by next call (9/11) and 2) have <a href="#">technical implementation plan</a> by 9/25 (see CRDC 1.4 doc draft) for Q4</li> </ul>	Group	TODO	End of Sept

Agenda Item	Action Items	Owner
Introduction and agenda overview	•	Brian/Jack - 5 min
Upcoming PFB talk for CRDC <ul style="list-style-type: none"> <li>Just FYI, Jack and Brian are giving a PFB talk next week</li> <li>Tuesday 9/29 at 1 pm Eastern at <b>NCI CRDC Tech Meeting</b></li> </ul>		Brian/Jack - 1 min
GA4GH FASP Update <ul style="list-style-type: none"> <li>See the <a href="#">slides</a></li> <li><a href="#">GA4GH Plenary</a> Sept 29-30th</li> </ul>		Brian/Jack - 10 min

<p><b>RAS</b></p> <ul style="list-style-type: none"> <li>Last time (9/11) we said: 1) <a href="#">decide approach by next call</a> and 2) have technical implementation plan by 9/25 (see <a href="#">CRDC 1.4 doc draft</a>) for Q4</li> <li>We've had multiple meetings with a smaller working group including a 9/17 meeting with CRDC and 9/14 meeting with RAS/GA4GH</li> <li>The decision we've converged on: <ul style="list-style-type: none"> <li>Q4: 1) use <a href="#">scenario 2</a> and pull AuthZ info from passports via Gen3, 2) design with GA4GH, RAS and platforms a <a href="#">scenario 3/1b/etc</a> (may include Passport 1.1 changes) that gets us closer to a) more secure token use and b) multiple passport brokers in our ecosystem</li> <li>Q1: 1) extend scenario 2 to use a central fence, 2) prototyping and coding the scenario 3 evolution we design in Q4</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>AI: Revise <a href="#">CRDC 1.4 RAS tech plan</a> by next week then a small group discussion to review <ul style="list-style-type: none"> <li>Jiaqi (lead)</li> <li>Brian O.</li> <li>Nicole</li> <li>... help please ...</li> </ul> </li> <li>AI: small group discussion next week -- Teresa</li> <li>AI: formalize a small RAS working sub-group to continue to chip away at our longer term design Q4-Q2 <ul style="list-style-type: none"> <li>RAS</li> <li>GA4GH</li> <li>Gen3</li> <li>Workspaces</li> </ul> </li> </ul> <p>Take the rest of the year to implement Scenario 2. During Q4 decide what to do in Q1. Whatever functionality would be built in Q1; have a design before that</p>	Brian/Jack - 15 min
<p><b>Preparing for Oct 30th NCPI Meeting</b></p> <ul style="list-style-type: none"> <li><i>We have 2 more group meetings ahead of the NCPI virtual meeting</i></li> <li>Review our Action Items to prepare: <ul style="list-style-type: none"> <li>Review/Revise <a href="#">Systems Interop group charter</a> <ul style="list-style-type: none"> <li>Include our future roadmap</li> <li>Update on researcher use cases</li> </ul> </li> <li>Review/Revise <a href="#">CRDC 1.4 RAS tech plan</a></li> <li>Memo for PFB (start from this <a href="#">doc</a>)</li> <li>Memo for DRS 1.1 (start from this <a href="#">doc</a>)</li> <li>Presentation <ul style="list-style-type: none"> <li>20 min (15 min + 5 for questions)</li> <li>Also likely to have some researchers deep dive into their work in separate updates</li> </ul> </li> </ul> </li> <li><i>Are we missing any items to prep for the Oct 30th meeting?</i></li> </ul>	<ul style="list-style-type: none"> <li>AI: Jack/Brian revise our group charter with help from <ul style="list-style-type: none"> <li>Garrett</li> <li>Allison</li> <li>Brian W</li> <li>Can we get champions for use cases to give updates</li> <li>IC reps, please help us too, Jack and Brian to reach out... Valentina volunteered to help review</li> </ul> </li> <li>AI: presentation for NCPI Oct 30th meeting</li> </ul>	Jack/Allison /Garrett/Brian W./... - 15 min
<p><b>Agenda for Next Meeting</b></p> <ul style="list-style-type: none"> <li>10/9 - Status of <a href="#">Researcher Use Cases</a></li> <li>Reminder on action items, see table at top</li> </ul>	<ul style="list-style-type: none"> <li>AI: Teresa/Jack/Brian ping researchers that will present at NCPI to get status</li> <li>AI: folks please look at the Action Items table above</li> </ul>	Brian/Jack - 2 min

**Notes:**

2020-09-11

Objective	Working Group call	Time	Bi-weekly, Fridays 12pm PT
Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	<a href="https://meet.google.com/grh-ox-fb-tee">https://meet.google.com/grh-ox-fb-tee</a>
<b>Participants: SIGN IN: Name &amp; Affiliation</b>	; ; ; Garrett Rupp (UChicago) ; Jiaqi Liu (UChicago) ; Alex VanTol (UChicago) ; Olivia Isaacs (UChicago); Binam Bajracharya(UChicago); ; ; Abby George (CHOP); Michael Lukowski (U Chicago); ; Bill Longabaugh (ISB-CGC); ; ; Kate Herman (Broad) ; Nicole Bolliger (Broad); ; Michael Baumann (Broad); Craig Voisin (Google); Natalie Kucher (NHGRI); ; ; ; Amanda Charbonneau (CFDE); ; ; ; ; John Cheadle (BDC3) ;Brian Walsh (OHSU) ; ;Valentina Di Francesco (NHGRI) ; ; ; Paul Avillach (C) ; Jessica Lyons (C) ; Danielle Pillion (C) ; Manisha Ray (Seven Bridges); Max Barkley (DNAstack), Anton Nekrutenko (PSU. AnVIL, Galaxy)		

Previous Action Items	Who / Project	Status	Due Date
Have DRS prefixes in identifiers.org and PFB handoff using valid DRS 1.1 URIs with Compact Identifiers	U. Chicago	TODO	mid-October
Add staging related info to DRS 1.1 document	U. Chicago	Done(?)	ASAP
Switch to light PFB by mid-October <ul style="list-style-type: none"><li>• Include dictionary file format so workspaces understand type of file being worked with</li><li>• TBD for BDCCat which previous projects will be converted and by when</li></ul>	U. Chicago Kids First	TODO	mid-October
RAS <ul style="list-style-type: none"><li>• Group - 1) decide approach by next call (9/11) and 2) have technical implementation plan by 9/25 (see CRDC 1.4 doc draft) for Q4</li><li>• AI: update scenario 1, have workspaces be</li></ul>	Group	TODO	End of Sept

brokers and mint their own passports, establish trust between client and resource.			
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Agenda Item	Action Items	Owner
Introduction and agenda overview	•	Brian/Jack - 5 min
Time to revise our Charter before Oct meeting	<ul style="list-style-type: none"> <li>• AI: someone to help Jack/Brian revise charter           <ul style="list-style-type: none"> <li>○ Garrett</li> <li>○ Allison</li> <li>○ Brian W</li> <li>○ Can we get champions for use cases to give updates</li> <li>○ IC reps, please help us too, Jack and Brian to reach out</li> </ul> </li> </ul>	Brian/Jack - 5 min
<u>PFB Handoff</u> review <ul style="list-style-type: none"> <li>• PFB light fields... do we want to make any statements about ontologies for the fields?</li> <li>• <i>fields defined <a href="#">here</a></i></li> <li>• Until DRS URI is available can use object_id (Gen3 GUID) but how to map to correct Gen3 server?           <ul style="list-style-type: none"> <li>○ See <a href="#">DRS 1.1 transition doc</a></li> <li>○ We may get AnVIL and BDCCat DRS URIs sooner than mid-oct</li> <li>○ CRDC, most data nodes use prefixes except for GDC.</li> <li>○ Kids First looking to support prefixes and hostname.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• AI: do we release a memo to the various stacks/ICs and call this NCPI PFB light 1.0?           <ul style="list-style-type: none"> <li>○ Dev guide too</li> <li>○ DRS 1.1 guide too</li> <li>○ Get sample PFB</li> <li>○ Jack and Brian ping IC leadership and ask if we put them in NCPI website</li> <li>○ If possible, leverage materials for Sept tech talk</li> </ul> </li> <li>• AI: can we check with CCDH on what they recommend for file_format etc</li> <li>• AI: reach out to CFDE for file_format etc.</li> </ul>	Brian/Jack - 15 min
Continue Review of GA4GH Passports Integration Options w/ GA4GH DRS Servers for NCPI ( <a href="#">slides</a> ) <ul style="list-style-type: none"> <li>• <u><a href="#">Let's update the group on GA4GH conversation on 9/9... are we getting closer to a plan for Q4? Q1?</a></u> <ul style="list-style-type: none"> <li>○ Conversation with Rebecca on 1A and 1B               <ul style="list-style-type: none"> <li>■ Jiaqi to update slides</li> </ul> </li> <li>○ Sync with SBG, Broad, ISB and meet with GA4GH again on 9/21</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• AI: ...</li> </ul>	Group - 20 min

<ul style="list-style-type: none"> <li>● Remember, our goal is to have this strategy nailed down by the end of Sept (end of Q3) for implementation by groups in Q4           <ul style="list-style-type: none"> <li>○ 2 weeks</li> <li>○ One more meeting 9/25 before</li> </ul> </li> <li>● References, see also           <ul style="list-style-type: none"> <li>○ <a href="#">CRDC RAS Integration Proposal v1.4</a></li> <li>○ <a href="#">RAS Tasks and Timeline - AnVIL &amp; CRDC Use Case</a></li> <li>○ <a href="#">Scenario options from U. Chicago</a></li> </ul> </li> <li>● Philosophical question here (Bernick) - Is a (verified) JWT sufficient authentication for system-to-system communications if the systems have an existing trust relationship?           <ul style="list-style-type: none"> <li>○ Ga4gh is agnostic to this</li> </ul> </li> <li>● Once finalized convert into NCPI document and send around to other projects? Share in Oct meeting.</li> </ul>		
<p><b>Upcoming Meeting Brainstorm</b></p> <ul style="list-style-type: none"> <li>● Let's spend some time mapping out work over the next several weeks</li> <li>● 9/25 - Update from the GA4GH FASP effort (using DRS endpoints from AnVIL, BDCCat, CRDC) &amp; decision for RAS work in Q4?</li> <li>● 10/9 - Status of Researcher Use Cases</li> <li>● 10/23 - Prep for Oct NCPI meeting: past, present, future work (see slides we put together ~2 months ago for long term)</li> <li>● 11/6 - Refresh timeline for the next 6 months, refresh our researcher use cases, etc.</li> <li>● 11/20 - ...</li> </ul>	<ul style="list-style-type: none"> <li>● AI: ...</li> </ul>	Group - 10 min

### Notes:

- Charter
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2020-08-28

Objective	Working Group call	Time	Bi-weekly, Fridays 12pm PT
Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	<a href="https://meet.google.com/grh-oxfb-tee">https://meet.google.com/grh-oxfb-tee</a>
Participants: SIGN IN: Name & Affiliation	Alex Baumann (Broad); Michael Baumann (Broad); Douglas Voet (Broad); Teresa Barsanti (BDC); Mo Heydarian (AnVIL); Bill Longabaugh (ISB-CGC); Mark Jensen (FNLCR); David Pot (ISB-CGC); Allen Dearry (NCI); Garrett		

	Rupp (UChicago); Gina Kuffel (UChicago) ; Pauline Ribeyre (UChicago); Olivia Isaacs (UChicago); Binam Bajracharya(UChicago); Jiaqi Liu (UChicago); Alex VanTol(UChicago); Natalie Kucher (NHGRI); ; Manisha Ray (Seven Bridges); Abby George (CHOP); ; Alisa Manning (Broad) ; ; ; Max Barkley (DNAstack); John Cheadle (BioData Catalyst);
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Previous Action Items	Who / Project	Status	Due Date
Have DRS prefixes in identifiers.org and PFB handoff using valid DRS 1.1 URIs with Compact Identifiers	U. Chicago	TODO	mid-October
Add staging related info to DRS 1.1 document	U. Chicago	TODO	ASAP
Switch to light PFB by mid-October <ul style="list-style-type: none"> <li>Include dictionary file format so workspaces understand type of file being worked with</li> <li>TBD for BDCat which previous projects will be converted and by when</li> </ul>	U. Chicago	TODO	mid-October

Agenda Item	Action Items	Owner
Introduction and agenda overview	•	Brian/Jack - 5 min
<u>PFB Handoff</u> review <ul style="list-style-type: none"> <li>Are we happy with the fields defined <a href="#">here</a>? Report back on offline conversations with Garrett on this.</li> <li>Map common fields to source fields in each system</li> <li>Convert docs for PFB light into NCPI doc we can send around to other projects? Share in Oct meeting.</li> <li>•</li> </ul>	• Teams fill in the field mapping to light PFB terms for their platform	Brian / Garrett - 15 min
Continue Review of GA4GH Passports Integration Options w/ GA4GH DRS Servers for NCPI ( <a href="#">slides</a> ) <ul style="list-style-type: none"> <li>Let's collect feedback on our options today (see table below)</li> <li>Remember, our goal is to have this strategy nailed down by the end of Sept (end of Q3) for implementation by groups in Q4</li> <li>References, see also <ul style="list-style-type: none"> <li><a href="#">CRDC RAS Integration Proposal v1.4</a></li> <li><a href="#">RAS Tasks and Timeline - AnVIL &amp; CRDC Use Case</a></li> </ul> </li> </ul>	• Schedule calls with GA4GH (Max, Craig, Kurt and David) next week and week after) -- Teresa <ul style="list-style-type: none"> <li>BDCat Virtual F2F next week is an opportunity for many of us to discuss options</li> <li>Group - 1) decide approach by next call (9/11) and 2) have technical implementation plan by 9/25 (see CRDC 1.4 doc draft) for Q4</li> </ul>	Jiaqi / Garrett / Group - 40 min

<ul style="list-style-type: none"> <li>Once finalized convert into NCPI document and send around to other projects? Share in Oct meeting.</li> </ul>	<ul style="list-style-type: none"> <li>AI: update scenario 1, have workspaces be brokers and mint their own passports, establish trust between client and resource.           <ul style="list-style-type: none"> <li>See Doug's diagram for Jiaqi to update scenario 1</li> </ul> </li> </ul>	
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**Notes:**

### Feedback on GA4GH Passport Options

Let's use this table below to summarize feedback for U. Chicago's 3 scenarios/options presented last time:

Platform	Scenario 1 (use passport token)	Scenario 2 (standard OIDC/OAuth2)	Scenario 3 (new service to exchange passport for limited scope token)	Preferred Scenario
<b>GA4GH feedback</b>	<p>1. It's just meant to be a fairly closed system between 2-3 (tops) sharers of Passports. Since all the Visas all roll up to the same source (RAS) anyhow so there is little difference in accepting a trusted endpoint (terra to Gen3, sbg to gen3) and doing it oneself. This DOES add some risk, but it's minimal given the next point.</p> <p>2. It is expected that all participants have a robust security posture that is tested regularly and has dedicated security staff to things like threat hunting and access control. This is further clarified in legally binding SLAs, Federal Oversight and ISAs. This significantly mitigates the security risk (though does not eliminate it).</p>	<p>Option 2 is very appropriate as a generic system, not a "loose federation of trusted resources with legal binding and other relationships all talking to the same IDP endpoint."</p> <p>Option 2 MUST though understand that in some circumstances, the Broker is Terra, not Gen3 and so the targets are</p>	<p>Need to be better understood and refined with GA4GH... suspect this is a design to work on in Q4 and beyond for longer term strategy.</p> <p>Suspect not ready for implementation in Q4.</p>	1 & 2

	<p>3. The allowance of a client handing its passport to be unrolled by another downstream clearinghouse is part of GA4GH to allow for <b>exactly</b> this scenario. This is the intention of the GA4GH spec. This has been re-clarified recently:</p> <p><a href="https://github.com/ga4gh/data-security/blob/master/AAC/AACConnectProfile.md#conformance-for-claim-clearinghouses-consuming-access-tokens-to-give-access-to-data">https://github.com/ga4gh/data-security/blob/master/AAC/AACConnectProfile.md#conformance-for-claim-clearinghouses-consuming-access-tokens-to-give-access-to-data</a></p> <p>4. Specific points in diagram:      "DRS1 cannot validate that the client is who they say they are" -- as a clearing house, they can check that the aud of the token to make sure they are who they say they are (as well as the JWT signature of course).</p> <p><a href="https://github.com/ga4gh/data-security/blob/master/AAC/AACConnectProfile.md#ga4gh-jwt-format">https://github.com/ga4gh/data-security/blob/master/AAC/AACConnectProfile.md#ga4gh-jwt-format</a> -- Given the limited number of trusted groups it's coming from, see above, that's minimal risk. The clearinghouse SHOULD know in advance who it's expecting from and reject all others. The "aud" attribute is usually associated with a destination endpoint in "traditional" expressions of oauth, so that attribute might change.</p> <p>"Attack vector is very broad" -- attack vector is more broad than option 2 but only adding 1 or 2 trusted endpoints with known security programs makes this more like "attack vector is increased to other known organizations with real security programs and with agreements in place".</p> <p>"sharing access token issued to the researcher UI -- audit ability</p>	reversed (Terra as Broker and Gen3 as 3rd party org).		
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	<p>hampered" -- Somewhat true generically but again this option is ONLY intended for fairly closed systems that have known robust logging of their own and agreements with NIH to reconstruct logging for events. While it does not enable a single pane of glass, it does not hamper an audit either.</p> <p>"User consent issue" -- being discussed here:  <a href="https://github.com/ga4gh/data-security/pull/40">https://github.com/ga4gh/data-security/pull/40</a> -- not resolved yet but understood.</p>			
<b>SBG-Based</b>	<p><b>Feedback for all 3 options</b></p> <p>1. The three options are not quite answering our central concern, which is security while maintaining a reasonable user experience. More information about how each decision impacts the end user will help us evaluate better. I think it would be easier to evaluate the options if there were additional rows for "ease of use for end-user," "ease of implementation for platforms," "reduces sign on events," and "degree of interoperability."</p> <p>2. Our fundamental process is that we have to confirm that the user is logged into all the appropriate place for every file in their task BEFORE the task is run, otherwise it will fail. Its not clear how we can do this for each of the 3 approaches</p> <p>3. We're concerned about the length of the refresh token with respect to task times</p> <p>4. For all options, is this the current state of the UChicago DRS servers, or are the DRS servers still in the process of being built?</p>	Are brokers chained in a way that user doesn't have to sign in or consent multiple times?		1 or 2

	<p>5. If we have the DRS link, do we know where the user is logged in already, or which Gen3 instance to go to for the file? Is this info in the PFB?</p> <p>6. What's the anticipated timeline for each option?</p> <p>7. Anticipated timeline and changes associated with a centralized Fence? That would clear up a lot of the potential user issues in 1-6.</p> <p>8. Scenario 1 specific: Not clear to us why multiple brokers doesn't work in this scenario. What would it take to be compliant with GA4GH AAI or OIDC?</p>			
<b>Feedback on call</b>	<ul style="list-style-type: none"> <li>● Could scenario 1 actually be Terra/SBG acting as passport broker, minting passports (with Visas from RAS), and hand that to Gen3? <ul style="list-style-type: none"> <li>○ Good: would establish more trust between client and resource server</li> <li>○ Bad: workspaces would need to be brokers too</li> <li>○ As a group it sounds like the consensus was scenario 1 should be updated to show SBG and Terra acting as brokers, reminting passports that Gen3 would then verify and accept (and would point to visas from RAS)</li> </ul> </li> <li>● AI: update scenario 1 to show this above - Jiaqi (Doug will send diagram)</li> <li>● Scenario 2 <ul style="list-style-type: none"> <li>○ This is essentially what we do now</li> <li>○ The major difference is /userinfo includes RAS visa passports (implemented now)</li> </ul> </li> <li>● Could do both scenarios 1 and 2? <ul style="list-style-type: none"> <li>○ Gives a path to new platforms that are not covered by ISA</li> <li>○ Gives a path to accepting passports issued by different platforms (Gen3, SBG, and Terra)</li> </ul> </li> <li>● AI: continue smaller group conversations over the next two weeks. Need to 1) refine scenario 1, 2) understand if supporting both 1 &amp; 2 is significantly more work and/or provides benefits, and 3) understand what scenario 3 is, is it the longer term evolution of what we're working towards? People to be involved <ul style="list-style-type: none"> <li>○ ISB: David and Bill</li> <li>○ Broad: Alex, Doug</li> <li>○ GA4GH: Max, David B, Craig</li> <li>○ SBG: Manisha and whoever else is recommended</li> <li>○ Gen3: Jiaqi and whoever else is recommended</li> </ul> </li> </ul>			

2020-08-21

Objective	Working Group call	Time	Bi-weekly, Fridays 12pm PT
Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	<a href="https://meet.google.com/grh-oxfb-tee">https://meet.google.com/grh-oxfb-tee</a>
Participants: <b>SIGN IN: Name &amp; Affiliation</b>	; Mark Jensen (FNL); Garrett Rupp (UChicago) ;Jiaqi Liu (UChicago) ; ; ; ; Kate Herman (Broad Institute) ;Natalie Kucher (NHGRI) ; ; Abby George (CHOP); ;Dan Kolbman (CHOP) ; Alisa Manning (Broad) ; ; ; ; Bill Longabaugh (ISB);David Pot (GDIT) ; ; Michael Lukowski (U Chicago); ; ; ; ; ; ; Nicole Bolliger (Broad); Michael Baumann (Broad); ;Tim Majarian (Broad) ; ; Bob Grossman; Teresa Barsanti (BDC); Manisha Ray (Seven Bridges); ; ; ; ;		

Agenda Item	Action Items	Owner
Introduction and agenda overview	•	Brian/Jack - 5 min
Use Case updates <ul style="list-style-type: none"> <li>• #7 - Alisa Manning: slides <ul style="list-style-type: none"> <li>◦ Good progress, exploring via Cavatica now</li> <li>◦ Effort underway to make data available on BDCat, Sept ETA</li> <li>◦ Joint calling on Cavatica now, explore on BDCat Terra in future</li> </ul> </li> <li>• #4 - Jack <ul style="list-style-type: none"> <li>◦ Added being able to bring in Gtex data</li> <li>◦ Where they go to is Wilson has finished analysis on RNA side thru very different process</li> <li>◦ Working with Terra team on policy issues to connect with other researchers - still need to work on the policy before we can make this happen</li> </ul> </li> </ul>	Alisa/Jack - 15 min total	
Are all use cases active / up to date		
Review of action items from last meeting <ul style="list-style-type: none"> <li>• <a href="#">DRS doc</a> review - Garrett and Alex <ul style="list-style-type: none"> <li>◦ Updated <ul style="list-style-type: none"> <li>■ DRS 1.1 is in production now</li> <li>■ Compact identifier - delineator shifted from / to colon.</li> <li>■ Registering with identifiers.org and specifying this in the DRS spec -</li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>mid-October:</b> have DRS prefixes in identifiers.org and PFB handoff using valid DRS 1.1 URLs with Compact Identifiers <ul style="list-style-type: none"> <li>◦ <i>Pick the date</i></li> <li>◦ <i>Can we do this in a backwards... Yes!</i></li> <li>◦ <i>Won't remove old</i></li> </ul> </li> </ul>	All - 20 min

<ul style="list-style-type: none"> <li>targeting October for full compliance <ul style="list-style-type: none"> <li>■ This is relative to Terra and Seven Bridges</li> <li>■ <a href="https://gen3.theanvil.io/">https://gen3.theanvil.io/</a> for GTEx v8 data</li> <li>○ Anything left to document? <ul style="list-style-type: none"> <li>■ Staging?</li> <li>■ Register prefixes in identifiers.org?</li> <li>■ </li> </ul> </li> </ul> </li> <li>● <a href="#">PFB Handoff</a> review - Garrett and Alex <ul style="list-style-type: none"> <li>○ 1 Item Pending</li> <li>○ Are we happy with the fields defined <a href="#">here</a>?</li> <li>○ Discuss multiple ga4gh_drs_uri fields?</li> </ul> </li> <li>● </li> </ul>	<p><b>attributes for now (future yes)</b></p> <ul style="list-style-type: none"> <li>● Chicago (Jiaqi) - add staging related info to DRS 1.1 document, as soon as possible please since it helps testing</li> <li>● PFB: <ul style="list-style-type: none"> <li>○ Will use an additive approach... by mid-Oct will not replace existing attributes</li> <li>○ Two items that are outstanding with common fields <ul style="list-style-type: none"> <li>■ <b>Include in our dictionary file format so workspaces understand type of file being worked with</b></li> </ul> </li> </ul> </li> <li>● Brian, Garrett, others take the conversation offline and bring it back to the group next week <ul style="list-style-type: none"> <li>■ <b>Consent groups</b></li> <li>■ <b>Multiple ga4gh_drs_uri?</b></li> </ul> </li> </ul>	
<p><b>Review GA4GH Passports Integration Options w/ GA4GH DRS Servers for NCPI (<a href="#">slides</a>)</b></p> <ul style="list-style-type: none"> <li>● Let's review our options here and use the call on 8/28 to followup based on feedback</li> <li>● Remember, our goal is to have this strategy nailed down by the end of Sept (end of Q3) for implementation by groups in Q4</li> <li>● FYI followup offered by GA4GH (Max, Craig, Kurt)</li> <li>● References, see also <ul style="list-style-type: none"> <li>○ <a href="#">CRDC RAS Integration Proposal v1.4</a></li> <li>○ <a href="#">RAS Tasks and Timeline - AnVIL &amp; CRDC Use Case</a></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● GA4GH (Max and Craig) have offered to have additional followups - Teresa to schedule</li> <li>● Groups review U. Chicago's options here and bring questions/comments/concerns/etc to the call on 8/28</li> </ul>	Jiaqi / Garrett - 20 min
<p><b>AOB</b></p>		

## Notes:

RAS discussion notes:

- See slides

- U. Chicago has mapped out 3 scenarios
  - Scenario 1: use RAS access token on DRS server
    - This does work according to the spec
    - Could be a valid flow
    - Con
      - Researcher UI auth with just RAS not DRS server
      - "If DRS1 is only authorized to move data to trusted parties or secure environments, then this flow would not work"
    - Pro
      - Existing DRS
  - Scenario 2: Federated with standard OIDC
    - Each auth server has an OIDC handshake with RAS
    - Each auth server needs a login
    - Con
      - User needs to login to each auth server
    - Pro
      - Auth servers can choose to downscope auth tokens for a particular DRS server
      - Better security and compliance
  - Scenario 3: Federated Data Access with OAuth 2.0 Token Exchange (an RFC)
    - Supports our use case to use a universal access token without pairwise login with each auth server
    - Trade RAS access token for downscoped resource token
    - Lots of open questions still
    - Cons
      - New standard, would be custom
    - Pro
      - Researcher UI authenticated via auth server
      - OAuth 2 client options viable
    - RAS might have to include aud claim along with researcher UI client ID
    - Impersonation semantics from Token Exchange

◀ Google Calendar 12:52 PM Fri Aug 21

NIH Systems Interoperation Working Group ▶

## Summary of Evaluation

Category	Scenario 1	Scenario 2	Scenario 3
Security	⚠ Least Secure	✓ Most Secure	✓ Security concerns can be mitigated
Permissiveness	✓ Fewer checks, easier flow for users	⚠ Standard Checks	✓ Fewer checks, easier flow for users
GA4GH AAI	⚠ Uses Passports / Visas, not fully compliant	✓ Compliant	⚠ Compliant if RFC8693 is accepted by GA4GH
OIDC & OAuth2.0	✗ Not Compliant	✓ Follows OIDC / OAuth2.0 Protocols	⚠ Compliant if RFC8693 is accepted by OAuth2.0
Multiple Brokers	⚠ Unlikely to Work. Access one broker at a time.	✓ Supported; Can Chain Brokers	⚠ Unlikely to Work. Access one broker at a time.

...

Jiaqi Liu is presenting

Call End Call Mute More

Jiaqi  
 Garrett  
 Michael  
 William  
 22 others

2020-07-31

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	•	Brian/Jack - 5 min

<p><b>Recap on RAS conversation from last call</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Slides</a> for Aug 5th -- feedback EOD Monday           <ul style="list-style-type: none"> <li>◦ Covers RAS Phase 1 (AnVIL, BD Cat, CRDC, Kids First)</li> </ul> </li> <li>• <a href="#">CRDC RAS Integration Proposal v1.4</a></li> <li>• <a href="#">RAS Tasks and Timeline - AnVIL &amp; CRDC Use Case</a> <ul style="list-style-type: none"> <li>-- please help us fill in Milestone 3 (U. Chicago)</li> </ul> </li> <li>• We will have another GA4GH deep dive, let <a href="#">Teresa</a> know if you want to be on the next GA4GH deep dive</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Feedback on slides EOD Monday</b></li> </ul>	Brian/Jack - 5 min
<p><b>Status of our Q3 work and summer/fall goals</b></p> <ul style="list-style-type: none"> <li>• Let's review where we stand on our Summer/early Fall plans... references docs for you all...           <ul style="list-style-type: none"> <li>◦ DRS 1.1 server + client               <ul style="list-style-type: none"> <li>▪ <a href="#">DRS 1.1: transition within NCPI</a></li> </ul> </li> <li>◦ <a href="#">Minimal PFB handoff</a> (fields)               <ul style="list-style-type: none"> <li>▪ Here is the link to the <a href="#">PFB Attributes Sheet</a></li> </ul> </li> </ul> </li> <li>• Identify any blockers</li> <li>• <b>Refresh our current <a href="#">timeline</a></b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Let's clean up the DRS 1.1 doc by the next call</b> <ul style="list-style-type: none"> <li>◦ <i>Alex and Garrett</i></li> </ul> </li> <li>• <b>Let's clean up the PFB doc by the next call</b> <ul style="list-style-type: none"> <li>◦ <i>Alex and Garrett</i> <ul style="list-style-type: none"> <li>▪ <i>We need a timeline when it will be rolled out to AnVIL, BDCat, CRDC, Kids First when PFB is supported there</i></li> </ul> </li> <li>◦ <i>Thumbs up needed by:</i> <ul style="list-style-type: none"> <li>◦ <i>Terra - Nicole</i></li> <li>◦ <i>Seven Bridges - Jack</i></li> </ul> </li> </ul> </li> <li>• <b>Let's bring updates on the researcher use cases by the next call.</b> <ul style="list-style-type: none"> <li>◦ <i>#7 with Alisa Manning</i></li> <li>◦ <i>#4 with Jack... have to see policy</i></li> <li>◦ <i>Allison H.... will try to update, maybe call after next.</i></li> </ul> </li> <li>• <b>Can we clean up the charter</b> <ul style="list-style-type: none"> <li>◦ <i>Freeze 1.0</i></li> <li>◦ Look at 1.1 and ask if there are any use cases we want to get rid of</li> <li>◦ Brian and Jack reach out to champions and ask if use cases are active and/or up to date</li> </ul> </li> </ul>	Brian/Jack - 20 min

**Notes:**

11

2020-07-17

\*\*\* If you have trouble getting into Google Meets please fill out [this form](#) with the email address you prefer to log in with

Objective	Working Group call	Time	Bi-weekly, Fridays 12pm PT
Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	<a href="https://meet.google.com/grh-oxfb-tee">https://meet.google.com/grh-oxfb-tee</a> Add slack
Participants: <b>SIGN IN: Name &amp; Affiliation</b>	Jennifer Dougherty, ISB-CGC (CRDC); Gina Kuffel (UChi); Pauline Ribeyre (UChi); Fantix King (UChi); Garrett Rupp (UChi); Michael Lukowski (U Chicago); Jiaqi Liu (UChicago); Bill Longabaugh (ISB-CGC); Alisa Manning (Broad); Kate Herman (Broad); Nicole Bolliger (Broad) ;valentina di francesco (NHGRI) ;David Pot (ISB-CGC); Erika Kim (NCI); Abby George (CHOP); Brian Walsh(OHSU); Allen Dearry (NCI)		

Agenda Item	Action Items	Owner
Introduction and agenda overview	•	Brian/Jack - 5 min
RAS <ul style="list-style-type: none"><li>• <b>Background Docs</b><ul style="list-style-type: none"><li>○ Reminder of where RAS fits in: <a href="#">20200717-RAS + Systems Interop</a></li><li>○ <a href="#">CRDC RAS Integration Proposal v1.2</a></li><li>○ <a href="#">RAS Tasks and Timeline - AnVIL &amp; CRDC Use Case</a></li><li>○ <a href="#">BDCat/KidsFirst Timeline</a> (been piloting using Notion - if anyone has feedback about it, lmk! -Allison)</li></ul></li><li>• <b>Short Term</b> - Let's use the time to coordinate on RAS across our stacks for our respective demos on Aug 5th (this is the RAS virtual meeting)<ul style="list-style-type: none"><li>○ Should we combine the demo for CRDC/AnVIL and BDCat/KF? 20 min total?</li><li>○ <a href="#">20200805 - RAS Presentation for CRDC/AnVIL</a></li></ul></li></ul>	<ul style="list-style-type: none"><li>• Team is thumbs up, let's make a combo presentation/demo... <a href="#">see slides</a>... due date is 7/27.</li><li>• <b>Longer Term</b><ul style="list-style-type: none"><li>○ Need for a table of 1) items for each stack/group and 2) common items between all stacks/projects (Gen3)<ul style="list-style-type: none"><li>■ Gen3 timelines/Chicago to help with this -- Garrett and Brian</li><li>■ Implementation plans/timelines across 4 stacks -- each stack</li><li>■ Goal is to have both of</li></ul></li></ul></li></ul>	

<ul style="list-style-type: none"> <li>• <b>Longer Term</b> - What does this mean for NCPI Systems Interop? What do we focus on in this group to support the RAS effort and the teams that are part of this group? <ul style="list-style-type: none"> <li>○ Can we work on a shared timeline (see doc <a href="#">RAS Tasks and Timeline - AnVIL &amp; CRDC Use Case</a>) for work needed to fully rollout RAS to CRDC, AnVIL, Kids First, and BDcat? <i>Version 1 and 2 implementation plan (what is and is not included)</i></li> <li>○ Blockers to implementation for version 1 (where do we still have incomplete work)</li> <li>○ Version 1 SSO flows and breaks (where will version 1 allow for SSO between systems, and where will it not)</li> <li>○ Version 2... need an agreement/timeline by Aug 5th so we can present.</li> </ul> </li> </ul>	these for Aug 5	
<b>Slack Channel</b> <ul style="list-style-type: none"> <li>• See #sys-interop-wg in the NCPI slack (<a href="https://nihcloudplatforms.slack.com">https://nihcloudplatforms.slack.com</a>)</li> </ul>		Brian - 1 min
<b>Feedback on AnVIL Landing page for Sys Interop WG</b> <ul style="list-style-type: none"> <li>• See <a href="https://staging.anvilproject.org/ncpi">https://staging.anvilproject.org/ncpi</a></li> <li>• Please let Dave Rogers know if you have feedback (<a href="mailto:dave@clevercanary.com">dave@clevercanary.com</a>)</li> </ul>	<ul style="list-style-type: none"> <li>• Feedback by end of next week please</li> </ul>	Brian - 1 min

### Notes:

We spent some time looking at what we are concerned about/think are blockers for our v1/v2 of rolling out RAS

#### Blockers/Concerns (version 1) - AuthN

- AuthN, systems are all using RAS via Fence, Fence refresh tokens used by platforms however...
- Concern: How each platform is integrating with RAS... not a full SSO across all systems
  - We should articulate this in our slides
  - Let's be clear about what user authn flows exist and which are no longer needed thanks to RAS
- Staging and production
  - We can't test existing users on staging environment
  - Could we test in production but not expose to users...
- Related to above, but a general release plan for production.

#### Blockers (version 2) - AuthZ

- Fence start using RAS instead of whitelists from dbGaP... realtime!
- Concerns
  - Token from RAS being used across 4 Fence servers
  - Privacy... passport being passed around multiple systems

- See [RAS Tasks and Timeline - AnVIL & CRDC Use Case](#)
- CRDC ISB access pattern... visa and telemetry files for short term... need to work with RAS team on this.
- ISAs and other paperwork/understandings between systems.
  - General policy guidance on authorization sync... some with RAS, some with ICs. For example, 24-hour window with dbGaP... so what's the policy for RAS to revoke user access... hour window? 24? Immediate
- Staging and production
  - We can't test existing users on staging environment
  - Could we test in production but not expose to users...

2020-06-19

**NOTE:** we switched to Google Meet, see the link below and also in the calendar invite

Objective	Working Group call	Time	Bi-weekly, Fridays 12pm PT
Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	<a href="https://meet.google.com/grh-oxfb-tee">https://meet.google.com/grh-oxfb-tee</a>
<b>Participants: SIGN IN: Name &amp; Affiliation</b>	Gina Kuffel (UChicago); Michael Lukowski (U Chicago); Bill Longabaugh (ISB); David Pot (GDIT); Valentina Di Fraancesco (NHGRI); Kate Herman (Broad); Amanda Charbonneau; Mo Heydarian (AnVIL); Rich Silva (AnVIL/Broad); Alex Baumann (Broad); Teresa Barsanti (BDC)M ; Alex VanTol (UChicago); Allen Dearry (NCI)		

Agenda Item	Action Items	Owner
Introduction and agenda overview	<ul style="list-style-type: none"> <li>• ...</li> </ul>	Brian/Jack - 5 min
<ul style="list-style-type: none"> <li>• <a href="#">Status of our work</a> leading to Q3/Q4           <ul style="list-style-type: none"> <li>○ DRS 1.1 server + client (see this <a href="#">doc from Terra</a> summarizing DRS endpoints)</li> <li>○ <a href="#">Minimal PFB handoff</a> (fields)               <ul style="list-style-type: none"> <li>■ Here is the link to the <a href="#">PFB Attributes Sheet</a></li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Everyone - Offline, groups need to agree on PFB fields, document in <a href="#">NIH System Interoperation Working Group -- PFB Technical</a></li> </ul>	25 min

<ul style="list-style-type: none"> <li>○ Support in SBG/Terra</li> </ul>	<p><a href="#">Guidelines</a> and the proposed <a href="#">PFB light fields doc</a></p> <ul style="list-style-type: none"> <li>● Garret, Jack, and Garrett follow up offline on core fields, the group should add any critical fields to this <a href="#">spreadsheet</a> from the U. Chicago group by the next call.</li> </ul>	
<ul style="list-style-type: none"> <li>● <a href="#">Planning for Year 2</a> and so we can ensure funding/work plans sync up</li> <li>● </li> </ul>	<ul style="list-style-type: none"> <li>● Everyone - add your ideas to the <a href="#">Brainstorming doc for 2021</a> by the next call.</li> </ul>	25 min

#### **Notes:**

- Many stacks and ICs are planning next steps and we want to be on the same page.
- DRS on server
  - Kids First: next two week for dev and another week after early July Kids
- DRS 1.1 support
  - Gen3: working on standardizing handoff URIs ... will affect support in workspaces...
  - Terra: still on target Q3
  - SBG: in design now, doing Q3 planning... date is about right in the timeline now... firmer estimate in a couple weeks
- Need to make sure PFB import is updated on timeline
- We might want to promote work and use cases so we can have more users to interoperate
- In 2021 ask what impact are we having?
- Ideas
  - Think about the next two weeks
  - What is important to you and your group?
  - Look at the slides and think about how they relate to your group
- Valentina these are all things that would be good to bring up in Wednesday's BDC virtual meeting

#### **Action Items from Last Time:**

- PFB Light
  - decide on [minimal PFB content](#)
  - API calls to generate PFBs

- Let's document both in our PFB tech doc: [NIH System Interoperation Working Group -- PFB Technical Guidelines](#)

2020-06-05

Objective	Working Group call	Time	Bi-weekly, Fridays 12pm PT
Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	<a href="https://zoom.us/j/958883976">https://zoom.us/j/958883976</a>
<b>Participants:</b> <b>SIGN IN: Name &amp; Affiliation</b>	Mo Heydarian (AnVIL); Robert L. Grossman (UChicago); Alex VanTol (UChicago); Garrett Rupp (UChi); Rich Silva (Broad); Kate Herman (Broad); Valerie Cotton (NICHD); Bill Longabaugh (ISB-CGC); Valentina Di Francesco; Rebecca Boyles (RTI); Michael Lukowski (Uchicago); Andre Paredes (UChicago); Kristin Wuichet (VUMC); Abby George (CHOP); Erika Kim (NCI); Dan Kolbman (CHOP); Brian Walsh (OHSU); Jennifer Dougherty (ISB-CGC); David Pot (ISB-CGC); Alisa Manning (Broad); Pauline Ribeyre (UChicago)		

OK ZOOM IS WORKING!!! PLEASE USE THIS...

<https://zoom.us/j/958883976>

Agenda Item	Action Items	Owner
Introduction and agenda overview	•	Brian/Jack - 5 min
<b>Minimal PFB and Portal Handoff</b> <ul style="list-style-type: none"> <li>the state of a <a href="#">minimal file handoff PFB</a> and our plan for summer</li> <li>Get an update on the Kids First design for supporting this portal handoff to workspaces, see <a href="#">slides</a> from Garrett and Allison</li> </ul>	<ul style="list-style-type: none"> <li>• Pending discussion...</li> <li>• Kids First + U. Chicago to implement PFB generation service?</li> <li>• Broad and SBG test import of minimal PFB?</li> <li>• <b>By next call,</b> <ul style="list-style-type: none"> <li>○ decide on minimal PFB content</li> <li>○ API calls to generate PFBs</li> <li>○ Let's document both in our PFB tech doc</li> </ul> </li> </ul>	Garrett/Allison - 30 min
<b>Review our timeline</b> <ul style="list-style-type: none"> <li>Many of our participating stacks (NHGRI AnVIL, NHLBI BD Catalyst) are in the process of writing work plans and funding requests for the next year.           <ul style="list-style-type: none"> <li>○ What are the next work periods for groups?</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Pending discussion...</li> <li>• <b>By next call</b> <ul style="list-style-type: none"> <li>○ A proposed <a href="#">Year 2 Plan</a></li> <li>○ A proposed quarter by quarter breakdown of milestones</li> </ul> </li> </ul>	Brian/Jack - 25 min

<ul style="list-style-type: none"> <li>○ NHLBI BD Cat: Oct 1 2020-March 2022, plan due end of June</li> <li>○ NHGRI AnVIL: July 1 - June 30 2021 Y3 Plan due end of June</li> <li>○ NCI CRDC: Sept 2020 - Sept 2021... end of July planning to be done.</li> <li>○ CF Kids First: planned through the end of 2020. They plan quarterly and resource. FHIR, RAS, and variant warehouse for Q3.           <ul style="list-style-type: none"> <li>■ Budget in June</li> </ul> </li> <li>● <i>Now would be an excellent time to think through what this group wants to accomplish over the next year, adding appropriate tasks to our respective work plans.</i></li> <li>● I think now would also be a great time to solidify those plans in a Charter/ Technical Plan 2.0 that describes the work between Oct 1 2020-Sept 30 2021, <i>goal to have it done by end of June to coincide with planning for groups</i></li> <li>● Reference docs:           <ul style="list-style-type: none"> <li>○ Our Q3 timeline <a href="#">slides</a></li> <li>○ Our <a href="#">Charter</a></li> <li>○ Our <a href="#">Technical Plan</a></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>○ Handed off to stacks for incorporation into their timelines and work plans</li> <li>● Jack and Brian - ping individual teams and try to consolidate ideas to review at next meeting in two weeks</li> </ul>	
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## **Notes:**

- PFB discussion
  - ...
- Longer term timeline discussion
  - ...
- BDC is looking at next 18 months of planning - now is really good time to make sure Interop work is part of longer term planning/vision in coordination with the BDC.
- Kids First (Allison) - Which data types are we looking at, which data types are we trying to move from one place to another
  - We want to focus on who is the person using these data spaces and what are they trying to do there?
  - KF is trying to layer on top of this - the clinical data space which is mostly light data (not large scale)
  - Alisa - epidemiology perspective - the data is rich, starting point is call to variant within a cohort and the complicated piece is variance in study design
- U. Chicago (Garrett) - using PFB already as handoff
  - PFBs can scale and be used for rich data or be used for smaller data
  - PFBs don't require all models to be alike
  - PFB is not a data model - allows for multiple data models
  - Not an API - PFB is a file format that is agnostic to API

- Minimal PFB - evaluating as use case for organizations that are not using rich data
    - Changed name to Lite PFB
  - Now have to evaluate these two different uses of these PFBs
  - Alison - why isn't KF using PFB now?
    - Their feedback was that PFB did not support their uses
    - PFB is a heavy format for a handful of fields
    - Role of PFB has been better defined and reframed
    - What are the key elements we need to do so key researchers can use the tools sooner
    - Conversation is Fire + PFB (not Fire OR PFB)
    - There's a need to pull this data
  - Focus son going to individual portal and be able to push that data from the workspace
  - Phase 1 we need to determine what the common attributes are
  - In each of NIH Commons we have some semblance of a study ID associated - the goal would be to come together and come up with a definition of study ID
    - Other stacks are welcome to put in other data
  - Let's use this as a exercise and create something basic
    - Code doesn't need to change
    - Don't need to worry about having common metadata model across projects
    - Researcher can scale themselves
    - There's a spectrum between what is the minimal and what is the rich
  - PFB technical dive doc - put notes of what you're working on here
  - Let's define summer as now through a deadline of Sep. 30
    - Have one use case working
    - Show handoff from 1 or 2 of the portals

2020-05-22

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b>	•	Brian/Jack - 5 min
<b>CFDE collaboration opportunities</b> <ul style="list-style-type: none"> <li>Placeholder for an overview by Owen (if he's available) and discussion about areas of collaboration</li> </ul>	•	Owen - 20 min
<b>Minimal PFB</b> <ul style="list-style-type: none"> <li>the state of a <a href="#">minimal file handoff PFB</a> and our plan for summer</li> <li><i>Can we pick a path forward for a minimal handoff?</i></li> </ul>	•	Allison/Brian/Jack - 20 min
<b>Review our timeline</b> <ul style="list-style-type: none"> <li>IC leadership is meeting on Tuesday to discuss how to help support our group</li> <li>Can we update the timeline on <a href="#">these slides</a>?</li> </ul>	•	Brian/Jack - 20 min
<b>Agenda for next meeting</b> <ul style="list-style-type: none"> <li>...</li> </ul>		Group

### Notes:

#### **CFDE**

- See slides (get these from Owen)
- Common Fund has ~15 DCCs
- Formation of CFDE coordination center
- >3 year program
- Make lightweight schema for shipping metadata about assets at the DCCs
- Levels of metadata: 0 (like file IDs, checksums), 1 assay type, anatomy, etc, 2 sex, age, etc 3 geo location etc
- Looked at FAIR metrics for ecosystem, showed table indicating what data is available at each DCC site
- 
- Topics for collaboration (from Owen's email):
  - Establish metrics to track and monitor data usage patterns of relevant datasets
    - Specifically, look at costs of replicating data in Google/AWS vs. streaming from one cloud to another
  - GA4GH & CFDE
    - How to be compatible
    - Steering committee / oversight committee to help build bridges between CFDE and BDC
  - Use case development
    - Interested in looking at the use cases from NIH System Interop group
    - Look at expansion of this... CFDE would push to future use case

- Testing schedule, tracking
    - Summer time
    - Tracking usage patterns through tracking manifest handoffs (PFB, TSV, etc)
    -
  - Assessment
  - Feedback for CFDE oversight committee
- AI:
  - Work on how we track and report back on the testing we think we will do in the summer. It would be super helpful to have a checklist/survey that should be filled out during the summer testing.
    - Establish metrics
    - Define use cases
    - Engage in testing with researchers
    - Track and report back

### **Minimal PFB Prototype**

- Prototype minimal container: see <https://github.com/briandoconnor/pypfb> (look at the end of the README) and the PR back to U. Chicago <https://github.com/uc-cdis/pypfb/pull/34>
  - [Slides](#) from Michael
  - [README/demo](#)
- Focus on minimal low bar across portals handoff of DRS URI's. If some portals want to send more data that's ok but let's focus on what's the minimum we need to do to handoff a DRS URI.
  - Goal this time is to pick an approach for summer
  - What are the next steps?
    - Test production of PFB from portals?
    - Test ingest of this minimal PFB to Terra, Gen3 workspaces, and SBG?
  - Update the PFB/DRS tech guides?
- Notes
  -

### **Review our timeline**

- See [these slides](#)
- Let's please update for Valentina and others, they are meeting Tuesday 5/26

2020-05-08

Objective	Working Group call	Time	Bi-weekly, Fridays 12pm PT
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Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	<a href="https://zoom.us/j/958883976">https://zoom.us/j/958883976</a>
<b>Participants:</b> <b>SIGN IN: Name &amp; Affiliation</b>	Bill Longabaugh (ISB-CGC); Michael Lukowski (U Chicago); Andrew Prokhorenkov (U Chicago); Garrett Rupp (U Chicago); Alex VanTol (U Chicago); Bob Grossman (UChicago); Gina Kuffel (UChicago); Alessandro Culotti (UChicago); Jiaqi Liu (UChicago); Teresa Barsanti Pauline Ribeyre (UChicago); Valentina Di Francesco(NHGRI); Patrick Patton (RENCI); Alisa Manning (Broad) ; Mo Heydarian (AnVIL/JHU); Rich Silva (Broad) ; ; ;		

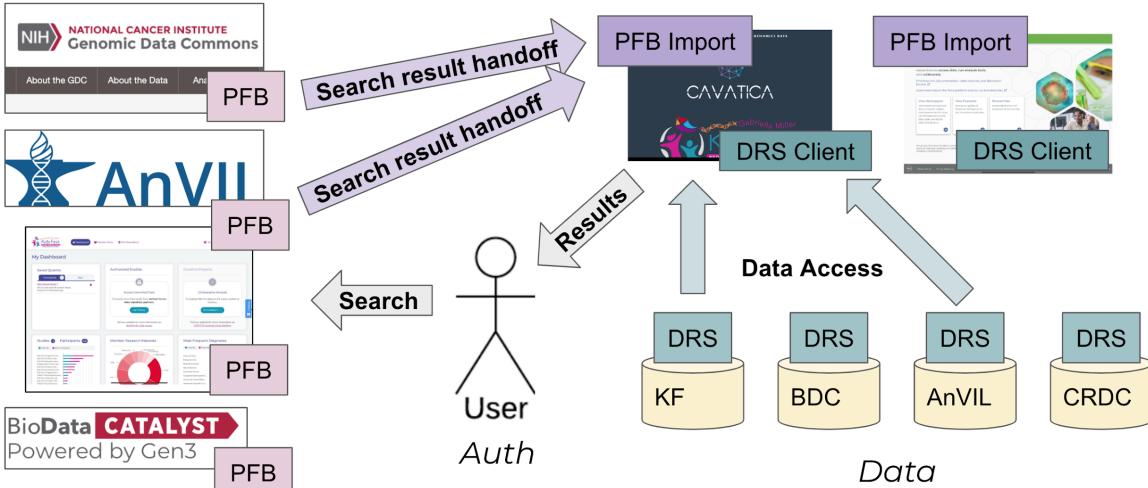
Agenda Item	Action Items	Owner
Introduction and agenda overview	•	Brian/Jack - 5 min
Deep dive into PFB & Workspace creation from search results <ul style="list-style-type: none"> <li>• Allison, Jack and others</li> <li>• Gap analysis, what's missing with PFB?</li> <li>• Are we aligned across groups? Do we need something else to meet our July goals? <ul style="list-style-type: none"> <li>◦ Evaluate our options for work spaces to support (notebooks for example)</li> </ul> </li> <li>• Come up with a standards plan that can land by mid-July so we can keep on schedule</li> </ul>	<ul style="list-style-type: none"> <li>• Garrett and U. Chicago and Brian O. will make a minimal PFB example that meets the needs of the July/Aug minimal handoff</li> <li>• Brian O/Jack to work with teams offline for feedback on this between now and next meeting 5/22</li> </ul>	Group / 50 min
AOB		5 min

### Notes:

#### **Background - 5 min**

Recall what we're trying to do ([Slides](#)): "Search result handoff"

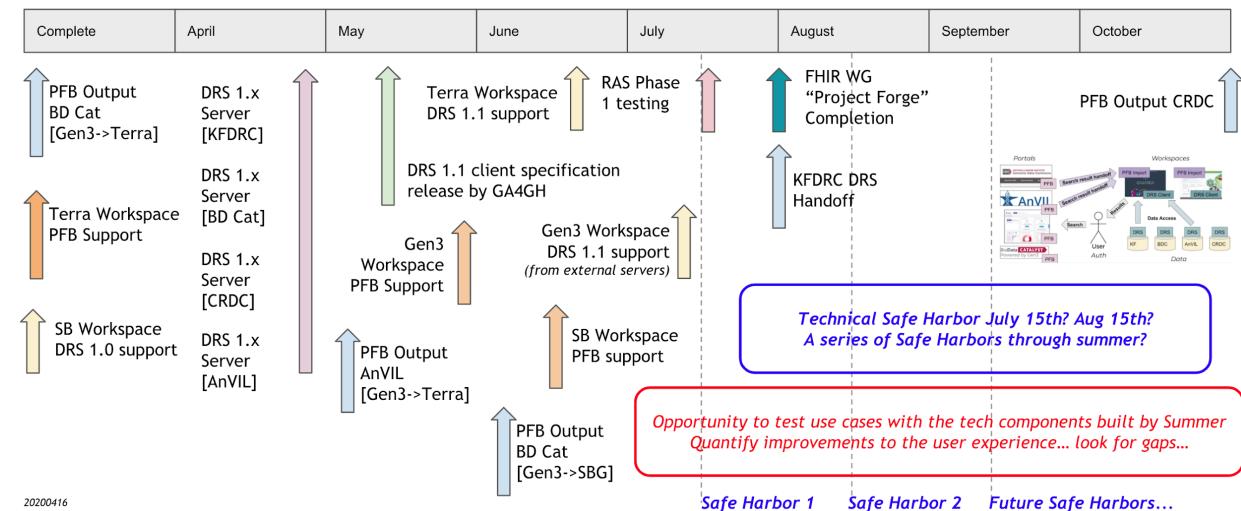
## Portals



## Workspaces

Recall the **timeline**, we want to be able to run through researcher use cases by...

Given the technical gaps, what might a timeline be for filling these?



## PFB gaps - 20 min

- What is the core problem we're trying to solve?
  - Handoff of DRS URIs
  - Minimal metadata for now
  - RAS?
- Gen3 (Bob and Garrett)
  - Just avro
  - Can load your dictionary, examples for Gen3 are provided
  - Could load something else?
  - Could add study group, identifier of project, etc... so opportunity to pass this information to systems that control access

- Use cases
    - List of URIs for DRS
    - Exchange bulk clinical/phenotype data
- GMKF (Allison)
  - Good
    - Bulk streaming data from one system to another
  - Areas/problems at hand
    - Not PFB per se, but the goals are really above... DRS URI, minimal metadata... goal to test DRS/RAS not model data
    - Challenge of clinical/pheo harmonization and exchange, this is a big area
    - Can we do something very simple for now?
- SBG (Jack)
  - Basic things we need, DRS URIs
- Terra (Alex)
  - Would hate to see two different paths, TSV for some and PFB for large collections of clin/pheno data
  - Some concepts are hardcoded in BDCat PFB... how to connect features in the PFB for example. Would need some level of agreement in order to hand off DRS URIs.

#### **What's supported where? - 10 min**

- If we go with a TSV, would like to see this self-describing and used generically rather than portal/workspace specific
- Goal is to have something and not "n" things...
- Format matters less, want consistency in how we

	<b>Workspace creation from...</b>	<b>From BDCat to Workspace</b>	<b>From AnVIL to Workspace</b>	<b>From GDC to Workspace</b>	<b>From KF to Workspace</b>
<b>Terra</b>	BDBag, PFB, TSV (have to match schema), JSON along with API calls (FISS in notebook)	PFB	PFB	none	none
<b>Gen3</b>	Manifest (TSV?) format now, next step is PFB	PFB	PFB	Manifest (TSV?) now available for download. Not sure	none

				when PFB will be exposed here.	
<b>SBG</b>	Cavatica - TSV CRDC - CSV format BDCat - PFB... always have filename and fileID regardless.	Implementing PFB now?	none	none	TSV that includes filename and fileID Alignment with GDC is pretty clear

### Plan for mid July/Aug? - 10 min

- 3 approaches
  - Everyone uses PFB, even if the PFB is very simple
  - Portals can choose between PFB or TSV, **workspaces support both**
  - Some portals support PFB, others TSV, and each workspace has an example notebook that will create a data model from each type as a prototype.
- [Minimal example PFB](#)
  - Can we go with a very, very simple format [TSV | PFB]
  - Can we have two consistent fields? Filename and FileID?
  - Use notebooks to wrangle metadata beyond this e.g. clinical/pheno... since that's hard to harmonize ...
  - We aren't worried about pre-indexing data, that's something we won't do for summer
  - Feel free to go beyond minimal here... we're just trying to establish a baseline
- A future topic from Allison
  - If we're trying to do all of this in realtime may not be fast enough
  - Need to support the model of pre-indexing?

### Next Meeting Topics

- Prototype minimal container?
- Focus on minimal low bar across portals handoff of DRS URI's. If some portals want to send more data that's ok but let's focus on what's the minimum we need to do to handoff a DRS URI.
- Goal next time is to pick a summer approach

## 2020-04-24

Objective	Working Group call	Time	Bi-weekly, Fridays 12pm PT
Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	<a href="https://zoom.us/j/958883976">https://zoom.us/j/958883976</a>
Participants: <b>SIGN IN: Name &amp; Affiliation</b>	Alex Baumann (Broad), Mo Heydarian (JHU/AnVIL), Valerie Cotton (NICHD/KF), Michael Lukowski (U Chicago), Pauline Ribeyre (UChicago), Brian Walsh (OHSU), Rich Silva (Broad), Alisa Manning (Broad), Valentina Di Francesco (NHGRI), Bill Longabaugh (ISB-CGC), Allen Dearry (NCI)		

Agenda Item	Action Items	Owner
Introduction and agenda overview	<ul style="list-style-type: none"> <li>• </li> </ul>	Brian/Jack - 5 min
<ul style="list-style-type: none"> <li>• Review the "<a href="#">NCPI Workshop (APR16 2020) - Meeting Notes</a>"  <ul style="list-style-type: none"> <li>○ <b>Use Case Timelines:</b> Champions, please provide Phases &amp; Timeline Information to Systems Interoperation WG (Brian O'Connor / Jack DiGiovanna) for inclusion in overall Timeline graphic which will be a focal point for follow up coordination.</li> <li>○ <b>Technical Timeline for Summer:</b> let's review risks and discuss next priorities for July/Aug <ul style="list-style-type: none"> <li>■ Priority #1 - DRS 1.1 <ul style="list-style-type: none"> <li>● Gen3 instances available</li> </ul> </li> <li>■ Priority #2 - Portal handoff mechanism</li> <li>■ Priority #3 - RAS</li> </ul> </li> <li>○ <b>Preparing for beyond summer</b> <ul style="list-style-type: none"> <li>■ <b>FHIR WG &amp; Systems Interoperation WG</b> - Collaborate closely together</li> <li>■ <b>RAS</b></li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Keep tech timeline evergreen -- everyone</b></li> <li>• <b>Evaluate PFB vs. what Kids First uses -- next call</b> <ul style="list-style-type: none"> <li>○ Allison and Jack</li> <li>○ Gap analysis</li> <li>○ Are we aligned across groups?</li> <li>○ Evaluate our options for work spaces to support (notebooks for example)</li> <li>○ Come up with a standards plan that can land by mid-July so we can keep on schedule</li> </ul> </li> </ul>	Group - 50 min

<ul style="list-style-type: none"> <li>■ <b>Think about longevity and reuse of Use Cases (tutorials for platforms for example)</b> <ul style="list-style-type: none"> <li>• Simulated data?</li> <li>• Open data on Gen3? (Garrett and Beth interested)</li> <li>• Publish?</li> <li>• Collaborate with interop/training WG</li> </ul> </li> </ul>		
Call for AOB	• ...	Brian/Jack - Ja5 min

**Notes:**

We probably need to start thinking now about what the next 6 months will look like

Jack - thank you to everyone for participation and making everything happen.

One thing that isn't clear is what are our use case timelines and do they line up with our technical map?

Start/End dates for Use Cases was completed (see table below)

- Chicago has prioritized use case 2 over 6 for now
- Chicago focusing on where they can work together on other use cases to ensure interop.
- Some use cases the scientific work might have been done but it could be good to go back and assess cost before/after for comparison - show how this would have worked if you would have had the interop from the beginning
- Champions/Drivers should make the call on how comprehensive they want to go with this
- When use cases are finished do we want to share this information
  - Brian thinks yes
  - Show how it was to do it old way, new way, and the delta between the two
  - Can be a great teaching exercise
  - Would love to see high level tutorials come out of this (not necessarily done by this group)
  - Issue: Groups aren't always allowed to share their data but if there are data sets that would enable a more open display
  - Alisa - if can do 80% of the process and make it open and transparent that would be a real benefit to the community
  - Need to find open data set - Thousand genomes project?

- Mo - we can convert presentations from last week into use case resource on NCPI web portal

Looking at Tech Timeline - what risks do we see

- Jack - what are we thinking about RAS? Is there a resource constraint for that?
- Garrett - propose that we funnel resources towards things like RAS, PFB, and DRS
- Alex feels DRS is most important because it's so close to ready - make sure RAS is still going in right direction
- Phase 1 testing RAS
  - Not attempting long term model
  - Focused on getting use cases for Broad, Seven Bridges, etc. ingesting data
  - Simulated one time login - not passing around RAS token
  - Phase 2 is more long term GA4GH passport spec
  - Even if we democratize one part of this we can still help the user a lot

Next call:

Let's do side by side comparison to identify gaps

Deep dive into PFB

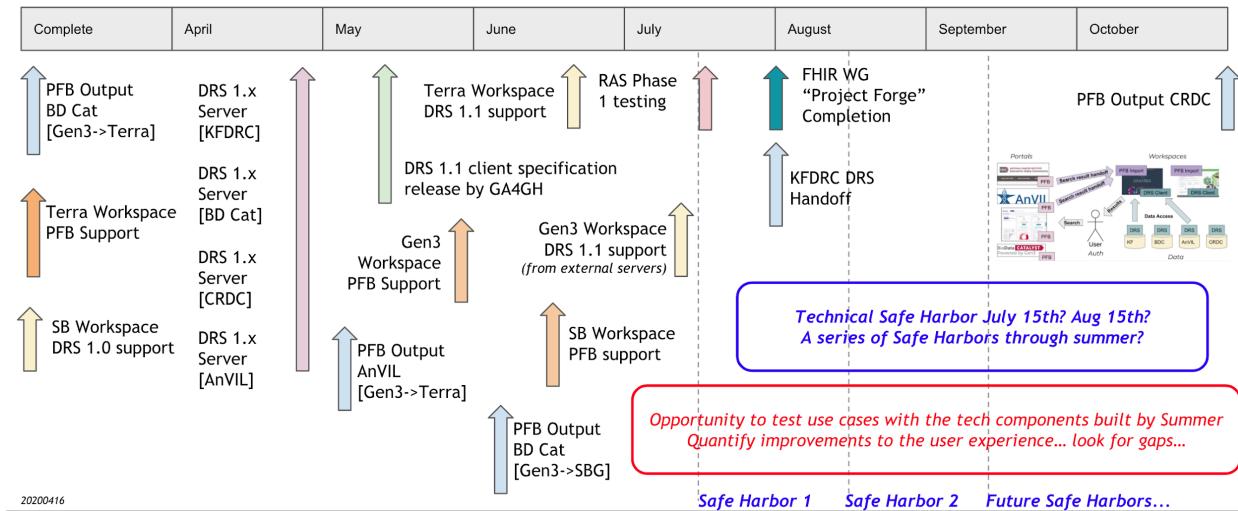
### Use Case Timeline

Use Case	Champion	Researcher	Start/End Date(s)
1a. NHLBI BioData Catalyst + Kids First DRC	Allison Heath	Bruce Gelb (Mount Sinai)	AI: Will reach out to Bruce
1b. NHLBI BioData Catalyst + Kids First DRC	Allison Heath	Elizabeth Goldmuntz and Deanne Taylor (CHOP), A.J. Agopian (UTH), Ryan Urbanowicz (UPenn)	Expect to be done mid-summer, question at that point is could it have been <b>done faster with interop in place</b>
2. NHLBI BioData Catalyst + Kids First DRC	Robert Grossman	Robert Grossman (UofC), Dmitry Grigoryev (UofC), Kyle Hernandez (UofC)	Work arounds now, want to evaluate using output of interop of systems work here. <b>Prioritize U. Chicago supporting all use cases here</b> (e.g. 4 and 2).
3. NHGRI AnVIL + Kids First DRC	Allison Heath	Batsal Devkota, Ian Kranz (CHOP)	Cancelled
4. NHGRI AnVIL +	Allison Heath	Any investigator that	Overlaps with Alisa

Kids First DRC + NHLBI BioData Catalyst		can leverage other datasets as controls for analysis, has been mentioned by a number of Kids First X01 investigators.	too. Cross inform each other on this. See Item 7 below.
5. NCI CRDC + NHGRI AnVIL	Jack DiGiovanna	Wilson McKerrow [PDC (CRDC), GDC (CRDC), and GTEx (AnVIL) data]	Scientific work in a good place. Driving use case for RAS. <b>Could do this again when RAS is supported. Could replicate in the summer for interop work.</b>
6. NCI CRDC + NHGRI AnVIL	Robert L. Grossman	Barbara Stranger (Northwestern University) and Robert L. Grossman (University of Chicago)	Deprioritized right now... come back to timeline as followup (Garrett)
7. NHGRI AnVIL + Kids First DRC + NHLBI BioData Catalyst	Alisa Manning	Alisa Manning, Brian O'Connor, Timothy Majarian	Design: April - June 30, 2020 <b>Testing interop: July - Sept 30, 2020</b> Analysis: Sept - June 2021

#### Tech Timeline

Given the technical gaps, what might a timeline be for filling these?



- Are we on track for mid-July/Aug timeframe? That's 6 months after mid-Jan agreement.
- DRS 1.1 <- priority 1
  - Alex - most important
  - Gen3 instances available
- Portal handoff mechanism <- priority 2
  - PFB
  - Can we do for everything?
  - Alex - maybe OK to have multiple
  - Allison - we have a handoff mech now.
    - Bulk transfer vs. simple handoff... what is it good at? Does it work for portal to workspace handoff
    - Scoping down to handoff bundles of DRS IDs.
  - Jack - can we compare PFB with what Kids First is using now?
- RAS <- priority 3
  - Phase 1 - CRDC example, limited scope, using Fence tokens
  - Alex - continue to make sure it's in the right direction
  - Seems to be on track for mid-July
    - Alex - seems feasible
    - Jack - seems feasible
    - Garrett/Gina - have endpoints available now for DRS(?), still prioritizing work for RAS
    - Allison - ramping up planning now
- Any other blockers?
  - Balance between use cases and PFB/RAS/DRS

## Preparing for beyond Summer

- At what point do we start mapping out our next 6 months?
- FHIR

- RAS

2020-04-10

Objective	Working Group call	Time	Bi-weekly, Fridays 12pm PT
Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	<a href="https://zoom.us/j/958883976">https://zoom.us/j/958883976</a>
<b>Participants:</b> <b>SIGN IN: Name &amp; Affiliation</b>	<i>Brian Walsh (OHSU), Alex VanTol (UChicago), Owen White (Maryland), Michael Lukowski (UChicago), Pauline Ribeyre (UChicago), Fantix King (UChicago), Rich Silva (Broad), Valentina Di Francesco (NHGRI), Joanna Chau (NHGRI), Gina Kuffel (UChicago), Robert Grossman (UChicago), Alex Baumann (Broad), Valerie Cotton (NICHD), Alisa Manning (Broad)</i>		

Agenda Item	Action Items	Owner
<b><u>Introduction and agenda overview</u></b> <ul style="list-style-type: none"> <li>• We are <a href="#">4 work days</a> away from the April NIH Interop <a href="#">online meeting on April 16</a></li> <li>• We will use today's meeting to review slides and discuss our presentation(s)</li> </ul>	•	Brian/Jack - 5 min
<b><u>Review Slides for April 16th meeting</u></b> <ul style="list-style-type: none"> <li>• Slides will be sent around probably EOD Monday</li> <li>• IC leadership looking at slides Tues-Wed</li> <li>• <a href="#">Meeting agenda link</a></li> <li>• <a href="#">Slides link</a></li> <li>• Review our sections <ul style="list-style-type: none"> <li>○ <a href="#">Working Group Update</a> - 15 min Jack/Brian</li> <li>○ <a href="#">Use Cases Updates</a> - 10 min <ul style="list-style-type: none"> <li>■ Allison Heath</li> <li>■ Jack DiGiovanna</li> <li>■ Gina Kuffel</li> <li>■ Alisa Manning</li> </ul> </li> <li>○ <a href="#">Longer Term Planning</a></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Group:</b> We need to finalize our slides by EOD Monday at the latest</li> <li>• We really need people to contribute to gap analysis</li> <li>• Everyone should look through slides and leave comments/suggestions by EOD Monday</li> <li>• Slide 32 - Add labels e.g. "This is where DRS would be, this is where PFB would be" (Garrett)</li> </ul>	

<ul style="list-style-type: none"> <li>■ <a href="#"><u>Technical gaps to solve in the next 6 months</u></a> - ~10 min - Jack/Brian</li> <li>■ <a href="#"><u>Use Case gaps</u></a> - Gina? Bob?</li> <li>■ Prioritization by IC leadership - Valentina</li> </ul>	<ul style="list-style-type: none"> <li>● Slide 41 - Garrett needs everyone else to complete their slides so he can complete this</li> <li>● Jack and Brian ping folks for GEN 3 clients</li> <li>● Slide 40 - Allison (Kids First), Jack &amp; Garret (CRDC), Chicago (BDC) - is this slide accurate</li> <li>● Slide 41 - RAS (U Chicago and Gen 3)</li> </ul>	
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### **Notes:**

#### SLIDE NOTES:

- Jack - make point of showing that use cases were actually able to implement over last 6 months
- Consistent input to GA4GH
- Work started on handing off Gen 3 to Seven Bridges and BDC
- Windmill to Gen 3 handoff mechanism (already noted in use case slides)
- Slide 13: Would a matrix or table show portal to portal progress?
  - Image showing all the portals/workspaces and use color coding to show what's active, what is planned
- Evolve standard with community
- Challenges - we had flood of use cases and it would be good to whittle them down in the next six months
  - Allison - It's an aggregate of use cases, what does interoperability allow you to do faster/better as an end-user. Users are working around the challenges to get their work done.
  - Brian - Goal for 16th os to find clarity on what uses cases we should focus on
- Slide 38 - Show DRS clients
- Slide 40 - show portals for PFB and workspaces (Terra, Seven Bridges, Gen 3)
- In future how do we share results and what does that mean for charter and use cases
- USE CASES:
  - Add labels this is where DRS would be, this is where PFB would be
  - Slide 32 - graphic is great
  - Slide 35 - Alisa - this is a new phase of use case implementation that leverages improvement

- Slide 41 - Garrett needs other slides completed before he can finish this

2020-03-27

Objective	Working Group call	Time	Bi-weekly, Fridays 12pm PT
Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	<a href="https://zoom.us/j/958883976">https://zoom.us/j/958883976</a>
<b>Participants:</b> <b>SIGN IN: Name &amp; Affiliation</b>	University of Chicago (Garrett Rupp, Gina Kuffel, Yan Liu, Jiaqi Liu, Pauline Ribeyre, Michael Lukowski, Fantix King), Bill Longabaugh, Valentina Di Francesco (NHGRI), Huiqing Li (NHLBI), Alisa Manning (Broad), Rich Silva (Broad/AnVIL), Mo Heydarian (JHU/AnVIL), Teresa Barsanti (Nimbus), Brian Walsh (OHSU)		

Agenda Item	Action Items	Owner
<u>Introduction and agenda overview</u> <ul style="list-style-type: none"> <li>● We are <b>14 work days</b> away from the April NIH Interop <b>online meeting on April 16</b></li> <li>● We have 1 more meeting of this group on <b>April 10th</b>, suggest we use that meeting to review slides and discuss</li> <li>● </li> </ul>	●	Brian/Jack - 5 min
<u>Use case updates(?)</u> <ul style="list-style-type: none"> <li>● Alisa Manning would like to discuss use case 4 and give an update of where we stand.</li> <li>● See <a href="#">researcher use cases</a></li> </ul>	<ul style="list-style-type: none"> <li>● Catalog the use cases as they stand and present to IC leadership to take a look at.</li> <li>● Do this by April 10th to hand off to leadership</li> </ul>	Group - 10 min
<u>Prep for the April Meeting:</u>  <b>Agenda for April 16th</b> - the agenda is still being worked on but we think right now we will have (subject to change): <ul style="list-style-type: none"> <li>● ~15 min for the NIH Systems Interop WG update</li> <li>● ~10-15 min for 3-4 use cases. Can we suggest the following folks to cover use cases?:</li> </ul>	<ul style="list-style-type: none"> <li>● Send slides around before April 10</li> <li>● Work on gap analysis between our tech infrastructure proposal in the tech charter and the reality of what we have done.</li> <li>● Jack and Brian work with Rich to create templates</li> <li>● Longer term goals               <ul style="list-style-type: none"> <li>○ Tech standards and implementations</li> </ul> </li> </ul>	Brian/Jack - 30 min

<ul style="list-style-type: none"> <li>○ Allison Heath</li> <li>○ Jack DiGiovanna</li> <li>○ Gina Kuffel</li> <li>● <i>Probably get a template for slides on 3/31, need to finalize slides by April 9th (I asked for the 10th).</i></li> </ul> <p><b>Strategically</b> - what key messages do we want to communicate (both per use-case and as a WG overall)?</p> <p><b>Tactically</b> - given the new schedule:</p> <ul style="list-style-type: none"> <li>● how much time do we have (both for report-backs and working sessions)?</li> <li>● which use-cases do we want to present? How much time for each? How are they clustered?</li> <li>● what are the next actions during these two weeks to get it done?</li> <li>● what (if anything) needs to change given that we are remote?</li> </ul> <p><b>Planning for Post Meeting Goals</b> - Another strategic point, but it's probably a huge stretch, what's our ideal scenario for the next 6 m of work?</p>	<ul style="list-style-type: none"> <li>○ Other items?</li> </ul>	
<b><u>AOB</u></b>		10 min

#### **Notes:**

#### **Agenda for April 16th**

- Ideas
  - Prioritize and timeline of the use cases
  - We can use this meeting to prioritize and check in on funding/support for these.

#### **Strategically**

- Rich sending out slides template by EOD Tuesday, March 31.

## **Tactically**

### Status updates on use cases

- We have identified contacts for use cases. Let's have those folks use 10-15 minutes to give updates in these meetings
- We'll leave it up to each contact to decide which use cases they think need to be presented
- Alisa Manning presented AnVIL/ Kids First use case
  - They will be reaching out to people over the next couple weeks to make sure their proposal is agreeable to all partners.
  - More and more use cases have appeared on different time frames - longer term let's think about how do we catalogue and track progress of many different use cases that we're seeing across groups.
  - Alisa available to help with prioritizing use cases
- Prioritize use cases... timeline
  - When we catalog our use cases we should catalog, pri
  - Could be useful to put the 9-12 use cases on a timeline and prioritize them that way
  - This needs to be a living process
- We should look at complete catalogue of use cases and bring them to this meeting so that leadership can see what we're working with.
  - If any use cases are missing, put them in. Have ready by next meeting April 10.
- We're probably approaching use cases differently. In next 6 months let's look at how to align how we approach use cases.
  - How are we getting data from A to B?
  - Important to talk about gaps
  - Based on idealized model and gaps what is to be done in next 6 months to fill those gaps
  - Let's frame this as "these are all the things we'd like to do" but identify and focus on the type item on the list
- Specific data points we want to look at as we identify gaps
  - DRS - being able to communicate that within different environments it takes different levels of effort - clarify exactly what we need to do
- 

## **Planning for Post Meeting Goals**

- Strawperson:
  - RAS integrated for AuthZ
  - DRS clients (maybe an OS one that's shared) on all workspaces, DRS servers on all portals and Gen3
  - clearer budget or workstream adaptation within each IC to build features
  - cloud usage cost budget to cover interop efforts
  - PFB evolves to PFB2 and we drive it to a ga4gh standard

- *N* additional scientific interop analysis are included
- etc
- What are our priorities going forward?
  - Garrett: standardize things
  - Jake: commitments for outcomes
  -

2020-03-13

Objective	Working Group call	Time	Bi-weekly, Fridays 12pm PT
Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	<a href="https://zoom.us/j/958883976">https://zoom.us/j/958883976</a>
<b>Participants:</b> <b>SIGN IN: Name &amp; Affiliation</b>	Please add yourself here...Alessandro Culotti (UChicago), Gina Kuffel (UChicago), Valentina Di Francesco (NHGRI), Michael Lukowski (U Chicago), Pauline Ribeyre (UChicago), Brian Walsh (OHSU) Alisa Manning (Broad), Fabian Seidl (ISB-CGC), Paul Avillach (Harvard Medical School), Valerie Cotton (KF, NICHD), Rich Silva (Broad)		

Agenda Item	Action Items	Owner
<b>Introduction and agenda overview</b> <ul style="list-style-type: none"> <li>● We are <a href="#">23 work days</a> away from the April NIH Interop meeting on April 16-17th</li> </ul>	●	Brian/Jack - 5 min
<b>Are our technical status updates still accurate?</b> See <a href="#">Summary of Work</a> from technical plan, <b>please update!!</b>	● Teams please update and make sure it's accurate	Brian/Jack - 5 min
<b>Researcher Use Cases Touch Base for April Meeting</b> <ul style="list-style-type: none"> <li>● Last week we discussed the state of technical implementation on the system, this week, let's look at the state of the <a href="#">researcher use cases</a>.</li> <li>● What will each team think they can deliver in April (either as a working prototype or in production)?</li> </ul>	● Jack and Brian should prepare templates for the presentations in April so each team can cover same items <ul style="list-style-type: none"> <li>○ What tech AI standards supported</li> <li>○ Science update</li> <li>○ Policy issues</li> <li>○ Tech issues</li> <li>○ Feedback on API standards</li> <li>○ Blockers</li> <li>○ Are we checking in with</li> </ul>	Bob/Garrett, Allison, and Jack - 45 min

	DACs, do we have permission for these use cases.	
AOB		5 min

**Notes:**

- What can we show for each use case in April (23 d away)?
  - The final April interop meeting agenda is in flux however there was a proposal to have brief updates from stacks followed by *updates on each use case (or a subset of use cases) and what progress has been made in the last 6 months.*
- 1a. NHLBI BioData Catalyst + Kids First DRC
  - Interop Contact: Allison Heath
  - Researchers: Bruce Gelb (Mount Sinai)
  - Status in April?
    - ...
    - Follow on 1b. See below.
- 1b. NHLBI BioData Catalyst + Kids First DRC [[slides](#)]
  - Interop Contact: Allison Heath
  - Researchers: Elizabeth Goldmuntz and Deanne Taylor (CHOP), A.J. Agopian (UTH), Ryan Urbanowicz (UPenn)
  - Status in April?
    - Nice for this since it's sequenced via NHLBI and Kids First... each stack has part of the dataset. This is the first time this data will be available outside the consortium..
    - Lot of whole exome, expect to be in BDC.. 800 trios in Freeze 8
    - Over 700 trios, available now on Kids First
    - Lots of uses using this... primarily downloading from Kids First
    - Want to shift people to using these data from platforms not downloading
      - Users on both "sides"
    - Status:
      - WES and WGS data... need to bring exome to GRCh38
      - BYOD... want to use 100 samples from CHOP plus data from BDC and Kids First
      - Interested in aligning in BDC and joint genotyping in Cavatica
      - Using a volume (bucket) as a proxy for data being available in BDC.
      - Phase 1
        - Brought the WFs from KF -> BDC, worked well
        - Processing WES (12k completed) in BDC, WGS already processed on Cavatica
      - Phase 2
        - Freeze 8 data available in BDC directly

- They have info on costs and time from phase 1
  - Also using this as the PFB test-case as well...
  - Have initial PFB exporter prototype
    - Leverages the advantages of Avro but strips out some of the tooling that's not needed for the use case.
    - Feedback: many to many getting flattened out
      - Avro has been pretty easy to work with
  - What feedback?
    - DRS data access for BDCat, Kids First
    - PFB feedback from generating a PFB from
    - See notes in their GitHub repo and docs, see [link](#)
  - Broader interop, what's missing?
    - BDC on Terra, for example
    - Questions:
      - Multi-cloud: Whole exome is on AWS
      - PFB testing... would they work in both Terra and SBG... relational vs graph starting sources. Seems much of the early data may be coming from relational dbs.
      - In the future, there will be converters between different PFB models.
    - DRS... using UUIDs from their DB not DRS yet.
  - By April
    - Show progress on science side
    - Try import of the PFB into Terra
    - Kids First gen3 instance... probably not happening by April but update on testing ... DRS on Cavatica now... but BDC on SBG probably not by April.
- 3. NHGRI AnVIL + Kids First DRC
  - Interop Contact: Allison Heath
  - Researchers: Batsal Devkota, Ian Kranz (CHOP)
  - Status in April?
    - How to interoperate with Terra
    - PFB
    - DRS
    - Working with U. Chicago and Broad
- 4. NHGRI AnVIL + Kids First DRC + NHLBI BioData Catalyst
  - Interop Contact: Allison Heath
  - Researchers: Any investigator that can leverage other datasets as controls for analysis. Alissa Manning will be talking more about this.
  - Status in April?
    - How to interoperate with Terra?
    - PFB
    - DRS

- Working with U. Chicago and Broad
- 5. NCI CRDC + NHGRI AnVIL
  - Interop Contact: Jack DiGiovanna
  - Researcher: Wilson McKerrow [PDC (CRDC), GDC (CRDC), and GTEx (AnVIL) data]
  - Status in April?
    - PDC and TCGA within CRDC
    - Willson reported on this in the IC Stacks meeting in October
    - Science next step, how can they bring in data from GTEx for a panel of normals
      - Good news, article under review for PDC - TCGA
    - Terra and getting to GTex data... working together with the Broad team (esp Alex Bauman) on making this happen
      - PFB not funded in CRDC
      - DRS is being worked on
    - Non-optimal flow right now... making progress on science
    - By april
      - Report back on status of the paper
      - Preliminary results on GTEx comparison... PDC-TCGA
      - PFB or DRS... not able to move this forward in time for April... report back on what's in store for the future
      - Security findings in this flow... room for improvement and lessons learned... report back on what works and doesn't work.
- 6. NCI CRDC + NHGRI AnVIL
  - Interop Contact: Robert L. Grossman -> Garrett reported back, use case 2 is their focus
  - Barbara Stranger (Northwestern University)
  - Status in April?
    - Wouldn't anticipate that this is a focus of April. Have been working on getting access to the GTEx v8 data indexed in Gen3. There's ongoing ISA work going on to unblock the indexing.
    - Don't want to get into the weeds of the exact ISA, but could present what considerations we'd need between security teams to move in this direction of a real world vs individual cases.
- 2. NHLBI BioData Catalyst + Kids First DRC
  - Interop Contact: Robert Grossman -> Gina gave an update, this is their focus
  - Researchers: Robert Grossman (UofC), Dmitry Grigoryev (UofC), Kyle Hernandez (UofC)
  - Status in April?
    - Simple scientific use case across kids first and BDCat
    - Doing this in a single gen3 workspace (Jupyter and RStudio)
    - Have a working proof of concept workspace that spans the two workspaces

- Only works across Gen3... using PFB to bring in manifests from multiple portals.
  - Using DRS? Right now using the GUIDs, mimicking where we are going in the future once DRS is adopted.
- Expect RAS support in the future such that it can connect with other Stacks.
- Developing DRS endpoint with GUID support... expect rolling out to different commons at different time.
- Report back to the larger group in April on timeline for DRS support across Gen3 based on GUID support in DRS 1.1 landing soon

2020-02-28

Objective	Working Group call	Time	Bi-weekly, Fridays 12pm PT
Leader(s):	<del>Jack DiGiovanna</del> (added some comments after in blue) - Brian O'Connor	Where	<a href="https://zoom.us/j/958883976">https://zoom.us/j/958883976</a>
<b>Participants:</b> <b>SIGN IN: Name &amp; Affiliation</b>	Valentina Di Francesco, Brian Walsh (OHSU), Brian O'Connor, Allison Heath, Owen White, Alisa Manning (Broad Institute/MGH)		

Agenda Item	Action Items	Owner
Introduction and agenda overview	•	Brian/Jack - 5 min
• Requesting time - short overview of the status of the Common Fund Data Ecosystem.		
<b>Review where we stand</b> <ul style="list-style-type: none"> <li>• We are <u>34 work days</u> away from the April NIH Interop meeting on April 16-17th</li> <li>• Check in on our timeline in our tech plan           <ul style="list-style-type: none"> <li>○ Phase 1 - standards/conventions, <u>are we done for now?</u> -- <u>time box 15 min</u> <ul style="list-style-type: none"> <li>■ PFB</li> <li>■ DRS</li> <li>■ AAI</li> </ul> </li> <li>○ Phase 2 - Status for each "stack"           <ul style="list-style-type: none"> <li>■ BD Cat</li> <li>■ CFDE</li> <li>■ Kids First</li> <li>■ AnVIL</li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• AI: Over the next week GMKF (Allison) generate PFB files and work with Alex to consume on Terra</li> <li>○ Brian W. may prototype soon as well.</li> <li>• Garrett to reach out to seven bridges for additional platform to hand off to</li> <li>• Invite Rebecca from RAS to this call and April meeting.</li> </ul>	15 min for standards, 40 min for team updates

■ CRDC		
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## **Notes:**

- CFDE News, Owen White:
  - Broad support from Common Fund
  - Worked in previous year visiting 9 DCCs
  - Approval to go forward - FOA recently announced
  - ~8 DCCs planning on participating
  - Target: do not relocate data, supply querying portal across all sites
  - Target: describe metadata relevant to querying assets at each site
  - Target: all DCCs provide inventory, similar in principle to DRS
  - Target: Create a manifest specification, similar in principle to PFB
- Phase 1 - standards/conventions, *are we done for now?*
  - [PFB guidelines](#)
    - Conceptually does it meet our needs?
    - Is it too Gen3 specific? Is it workable for April? For October?
    - What's our plan for getting it generic enough for use across groups?
    - [AH] looked at PFB. similar to the approach used with KF and Cavatica
      - Avro as tech nice
      - Use case problem: 1) serialization 2) data representation
      - AI: key breakout session... PFB use cases and deep dive... is there a more basic starting point
      - AI: could have prototype send a PFB to Terra... Allison and Alex say this would be good.
        - AI: Over the next week generate PFB files and work with Alex to consume on Terra
      - [BW] wants to prototype with Alex and Allison
      - [GR] wants more hand offs to other systems (SBG) ->
  - [DRS guidelines](#)
    - Much discussion has taken place with Gen3/U. Chicago team on supporting GUIDs in DRS
    - We have three options being evaluated by Cloud Work Stream
    - Current plan is to present these on March 9th call and make a decision
    - Should have minimal impact on systems that support DRS already but will "nail down" a few loose ends
    - [AH] has been useful, please settle the spec. Next question, concerns about stacks to figure out gaps when using in stacks.
    - [AB]: settle spec, Alex said Terra and SBG want to go with what's in DRS 1.1 spec. Is there stuff in the DRS spec that isn't solving needs? Seems to work except needing to solve the GUID vs. hostname issue.
      - Requester pays causes issues... need to think through this flow... a disconnected area in the spec/google cloud option
  - [AAI guidelines](#)
    - Is the goal link to account link to the Fence whose PFBs you support and for April we want to have a longer term strategy guidelines written (and feedback given to/from RAS project)?
    - [SC] invite Rebecca to this call

- [AB] end to end prototype for April... not RAS but working with GTEx ...
  - Phase 2 - Status for each "stack" (look at the [table](#))
    - BD Catalyst
      - [AB] we have handoff working between Windmill and Terra. PFB flow working using signed URL. Parsed and turned into workspace data model (via template). DOS used via GUIDs.
        - APRIL: settle DRS guid/hostname format. May not have implemented by April.
      - [\[JD\] likely will have Windmill -> SB handoff working as well, but also not using DRS ids at that time.](#)
    - Kids First
      - Prototype showing PFB -> Terra
      - Working on RAS on BDCat with Gen3, next steps and progress report
      - [\[JD\] continued use of the KFP -> Cavativca handoff; scientific analysis across KF and BDC.](#)
    - AnVIL
      - PFB handoff between Gen3 staging and Terra staging for AnVIL
      - [GR] anticipate maybe having prod available but security conversations. May not have production version in time. At least show staging handoff. PFB in the future will hand off authorization information.
    - CRDC
      - [AB] Firecloud... connecting to Gen3 instance... no PFB handoff... not able to get this on GDC
      - [\[JD\] will have PDC + TCGA + GTEx scientific analysis completed. Won't leverage DRS/PFB by April; limited/no funding.](#)
  - For April Meeting
    - Breakout on PFB, look at gaps
    - Breakout for DRS, solve GUID issue, look gaps
    - Talk about
      - We seem to be on the same page across projects
      - DRS gaps, release plans.
      - PFB gaps, will it become a standard? Release plan?
      - AAI and RAS gaps
        - What happens with protecting data when creating a workspace with multiple sources. How to encode in PFB?
        - How can RAS help with this?
      - What can we do now with our systems? What prototypes do we have now?
- 

2020-02-14

Objective	Working Group call	Time	Bi-weekly, Fridays 12pm PT
Leader(s):	Jack DiGiovanna	Where	<a href="https://meet.google.com/toc-ftdr-cbq?authuser=2&amp;hs=122">https://meet.google.com/toc-ftdr-cbq?authuser=2&amp;hs=122</a>

<b>Participants:</b> <b>SIGN IN: Name &amp; Affiliation</b>	Andrew Rula (Broad), Rich Silva (Broad), Mo Heydarian (JHU/AnVIL), Allison Heath (CHOP/KFDRC)
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Agenda Item	Action Items	Owner
Introduction and agenda overview	•	Brian/Jack - 5 min
Recap <a href="#">PFB guidelines</a> , identify next actions	•	
Recap <a href="#">DRS guidelines</a> , identify next actions	•	
Check in on RAS / AuthN/Z progress, identify next actions	•	

## **Notes:**

Recap [PFB guidelines](#), identify next actions

- [AH] Thoughts on how documents can be streamlined for more clarity (hard to sign off if reader needs to traverse 10 nested google docs). Get what we're trying to do, but thinking about what it takes realistically.
- pyPFB tooling is also a way to bring data models into PFB. dbGaP files is also a clear use case, UC did an early implementation of that in BDC (code is public)
- Already exists with Terra, any input?
  - Different data models in AnVIL, same model in TOPMed
- Send to (push) vs pull?
  - Push seems preferable, people like it
  - Pull is also good for users and also for portals who cannot code it. As long as any analysis ecosystem can accept a DRS id, we'd be able to alleviate the extra work for a Data Portal for each new push.
- Do we need more Portals on the call, not sure?

Recap [DRS guidelines](#), identify next actions

- There was less contention here, but we wanted to resolve the PR for ga4gh.
- PR is ready, meeting with Brian and David before.
- DRS is good to go

Check in on RAS / AuthN/Z progress, identify next actions

- Makes sense to add RAS into interoperability discussion - will post document here and address during next meeting

Other

- [MH] Any feedback/input for 'Train Your Colleagues' agenda? (sharing link)  
What do others need to know about your platforms in order to interoperate between them?  
Wants to make sure all of the stacks are appropriately represented.
  - [https://docs.google.com/document/d/1Jpsbqw\\_PSp\\_7TpBRT4bYF1f8wRqKZgKzH0vFVOIOuPs/edit?usp=sharing](https://docs.google.com/document/d/1Jpsbqw_PSp_7TpBRT4bYF1f8wRqKZgKzH0vFVOIOuPs/edit?usp=sharing)

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2020-01-31

Objective	Working Group call	Time	Bi-weekly, Fridays 12pm PT
Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	<a href="https://meet.google.com/toc-ftdr-cbq?authuser=2&amp;hs=122">https://meet.google.com/toc-ftdr-cbq?authuser=2&amp;hs=122</a>
<b>Participants:</b> <b>SIGN IN: Name &amp; Affiliation</b>	Sima Pandya (FNL), Valentina (NHGRI), Joanna Chau (NHGRI), Nicole Bolliger (Broad), David Pot (NCI ISB-CGC), Jennifer Dougherty (NCI ISB-CGC) Jennifer Dougherty (ISB-CGC) Patrick Patton (BDCatalyst) Michael Lukowski(U Chicago), Alex VanTol (U chicago), Alessandro Culotti (U chicago), Bill Longabaugh (CRDC ISB-CGC), Mo Heydarian (AnVIL, JHU), Rich Silva (Broad), Brian Walsh (OHSU), Steve Cox (RENCI), Alex Baumann (Broad), Michael Baumann (Broad), Andrew Rula (Broad)		

Agenda Item	Action Items	Owner
Introduction and agenda overview	•	Brian/Jack - 5 min
<u>Technical Plan Review</u> <ul style="list-style-type: none"> <li>Review the <a href="#">summary of work table</a>, is it accurate?</li> <li>Did groups finish a first version of the DRS and PFB tech guidelines in the "<a href="#">Phase 1 - Standards and Conventions Tasks</a>"?</li> <li>•</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>Jack and Brian should reach out to the Portal and Analysis Environment teams to make sure they have seen and commented on the PFB and DRS technical guidelines docs. Now is the time to raise concerns/questions.</li> <li>Brian and GA4GH need to resolve the DRS 1.1 use of GUIDs in the spec.</li> </ul>	
<u>Agenda for next time</u> <ul style="list-style-type: none"> <li>Recap "<a href="#">Phase 1 - Standards and Conventions Tasks</a>"</li> <li>Review "<a href="#">Phase 2 -- Implementation</a>" <ul style="list-style-type: none"> <li>Do we have the right high-level tech tasks identified?</li> <li>Do we have a timeframe for any?</li> </ul> </li> <li>Auth guidelines?</li> <li>Check In by group</li> <li>Check in on tasks</li> </ul>	•	
•	•	

## **Notes:**

### Technical Plan Review

- Summary of work table
  - [BO] High-level progress tracking; feedback would be great (do you want to break out fence deliverables in separate column?).  
If we add more portals/analysis environments, please feel free to edit these tables & help fill out / keep up to date.
- Phase 1
  - [BO] Proposing step-through guideline documents at high level, and ask question of portal developers: does this look like sufficient amount of information?
  - [BO] PFB - trying to fix low hanging fruit; we have many data access portals, and right now it's difficult to actually find data in these portals for computing. Standardizing the way portals process search results; researchers collecting data from several portals.  
- A lot of this work is the Gen3 group
  - [AC] This is the current state of things for handoff between Gen3's Windmill portal and Terra's analysis platform; this is not a final proposal, just how we are currently doing things.
  - [Michael] PFB is a way to hold structured data with the schema and the data together; use Avro to sort of serialize the data together...
  - [BO] Opportunity to ask the question: as interop moves forward, there may be a common metadata model
  - [Michael] Export to PFB button in BDCat environment; export to Terra button pretty much does the same thing
  - [BO] Jack & I should reach out to each of the groups that are part of our interop working group & request comments; have developers that are building these portals take a look at this (between this meeting and next).
  - [AB] PFBs contain the clinical metadata; select the cohort wanted; export to Terra. So we don't share user identity - no single identity being shared across platforms. Needed a way to handoff data without having Gen3 call our APIs. Independent authorization mechanisms.  
- Gen3 platform generates PFB, puts it in a bucket & creates assigned URL; redirect user to Terra URL. Redirects don't require any authentication or authorization (Terra will prompt to log in). Call a backend API that uses the user credentials; copying the metadata - not copying the data files over.
  - [BR] Word of caution for other portals: thinking about what user experience is like when it takes a long time to create PFB file (if it is huge)
  - [BO] Walked through how portal created PSB and then consumes it -> put in a table where we can start documenting the various endpoints for PFB handoff (using same minimal API for handoff as Terra).
  - [AB] Important - there's no auth between handoff.
  - [BO] Want to see a send-to-Terra button from all of these portals? Something that should be decided in the not so distant future - are we going to use the same export to Terra endpoint
  - [BW] Seems that use case is going to alter over time as researchers collaborate with different folks (PFB to target of my choice?)
  - [BO] Something that oversight committee should talk through (from user perspective)
  - [BO] How do DRS URIs and GUIDs play well together? To settle from development perspective; how does this work with authentication authorization
- Phase 2
  -

## 20200117

Objective	Working Group call	Time	Bi-weekly, Fridays 12pm PT
Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	<a href="https://meet.google.com/toc-ftdr-cbq?authuser=2&amp;hs=122">https://meet.google.com/toc-ftdr-cbq?authuser=2&amp;hs=122</a>
<b>Participants:</b> <b>SIGN IN: Name &amp; Affiliation</b>	Enis Afgan (JHU), Valentina Di Francesco (NHGRI), Patrick Patton (BioData Catalyst CC), Brian Walsh OHSU, Rich Silva (Broad), Andrew Rula (Broad), Erika Kim (NCI), Sima Pandya (FNL), Owen White (maryland), Michael Lukowski (UChicago), Alex VanTol (UChicago), Alessandro Culotti (UChicago), Andre Paredes (UChicago) Teresa Basanti (Nimbus), Bill Longabaugh (ISB)		

Agenda Item	Action Items	Owner
Introduction and agenda overview	•	Brian/Jack - 2 min
<u>Charter</u> Use Case Review • Signed off by IC leadership for CRDC, Kids First, and AnVIL. <u>Pending</u> BD Catalyst	• Jack/Brian to send Alastair and Jonathan a ping	Brian/Jack 5 min
<u>Technical Plan</u> Review • <i>We are not project managing via this group, we are providing a space to collaborate and report back progress to the IC leadership</i> • The goal is to put together a high-level overview of the technical work needed, who's doing it, and when it should be done by. • Reviewing this will form the basis of the cross-group check in during each call, trying to ask the question "are we on track?" and reporting that back to IC leadership • <i>Let's take a look at what we have, are the major work items represented?</i>	• PFB guidelines doc initial draft done by next call • DRS guidelines doc initial draft done by next call • <i>See the tech plan doc for who is working on each of these</i> • Workspace Environments should review their phase 3 work ahead of the next call. Do we have the right point people?	Group / 30 min
Agenda for next call • Check In by group,	•	Brian / Jack 5 min

<ul style="list-style-type: none"> <li>Review where we stand on the tech plan, can we cross anything off the list? <ul style="list-style-type: none"> <li>we should have the two technical guidelines done and review those on the call</li> <li>Can we assign due dates for portals supporting PFB by the next call (2/14)?</li> <li>Let's review the workspace</li> </ul> </li> <li>Special topics or Demo to each other as needed</li> </ul>		
AOB?		

### **Notes:**

#### Technical plan review

##### *Phase 1*

- PFB guidelines: using this for other portals; want additional portals to support export to PFB.
  - Chicago = would need to build out a bit more as tool for developer use; not much in the way of what happens when you receive PFB (more in Terra's realm). Would be useful to put together page that contains handoff information as "developer guide" (how handoff currently bounces off Gen3 from Terra / 'how do I put you to the url of PFB file?') - Alessandro as contact for generation/handoff of PFB from Gen3.
  - Broad = in terms of consuming - could be in next few weeks; BDC go-live would trump documenting this at the moment.
  - Aiming to have this within next two weeks.
  - [BO] What is the minimal information that should be handed out (to be covered in PFB guidelines?)
  - v
- DRS guidelines: would be good to pin down asap (within next two weeks).
  - [AH] KidsFirst having lightweight conversations about how DRS is going to work.
  - [AB] Still technical details to work out - may not have an answer to all of it yet.
  - [BO] Not waiting for official 1.1 approval (pull request taking a long time). Not changing schema, just solidifying convention.
- AAI guidelines:
  - [AH] Key thing - NIH workshop on 27th; could be good time to walk through sequence diagram and handoff. Not "one thing to rule them all", but key instances.
  - [AB] For phase 1, the best outcome would be if we think what we want interop to look like past April (next year/year and a half). What's the long term, as well as April milestone?
  - AH + AB + Gina (+others) will be at RAS - [list of attendees](#). There is also a remote attendance option.

##### *Phase 2*

[BO] Wants to add dates (tentative, may be impacted by other work).

- DCFS Fence instances
  - [BO] Would be good to have estimate by next call - Alessandro tagged.
- Proteonomics Data Commons
  - [SP] Has not been approved by NCI; using only Fence and index D.
  - Assignee as TBD - Jack will follow up; will this be deferred?
- Try to have estimates for dates by meeting on 14th.

#### Any other business

- None
- 

20191220

Objective	Working Group call	Time	Bi-weekly, Fridays 12pm PT
Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	<a href="https://meet.google.com/toc-ftdr-cbq?authuser=2&amp;hs=122">https://meet.google.com/toc-ftdr-cbq?authuser=2&amp;hs=122</a>
<b>Participants:</b> <b>SIGN IN: Name &amp; Affiliation</b>	Alex Baumann (Broad) Michael Baumann (Broad) Rich Silva (Broad) Brian Walsh (OHSU) Michael Lukowski (UChicago) Robert L Grossman (UChicago) Garrett Rupp (UChicago) Alex VanTol (UChicago) Bill Longabaugh (ISB) Cara Mason (Broad) Patrick Patton (RENCI) David Pot, Kawther Abdilleh, Ron Taylor (GDIT, ISB-CGC) Valentina Di Francesco (NHGRI) Allison Heath (CHOP)		

Agenda Item	Action Items	Owner
<b>Introduction</b> <ul style="list-style-type: none"> <li>• Goals for today's call</li> <li>• Next In Person Meeting: Thurs-Fri April 16-17               <ul style="list-style-type: none"> <li>◦ <i>This is our next big deadline, 4 months!!</i></li> </ul> </li> </ul>	•	Brian/Jack - 5 min
<b><u>Charter Use Case Review</u></b> <ul style="list-style-type: none"> <li>• Let's take a quick look at the charter use cases</li> <li>• More use cases can be added to this <a href="#">document</a></li> </ul>	<ul style="list-style-type: none"> <li>• We're asking for NIH IC leadership signoff by the next Organizing committee in Jan</li> <li>• Bob (U. Chicago) will add 3 more use cases to the Charter/Use Cases doc including a 3rd part commons.</li> <li>• Brian O to add a use case for HCA data handoff</li> </ul>	Brian/Jack/ Group - 15 min

	<ul style="list-style-type: none"> <li>IC leadership, need to make sure we understand if any changes to ATOs/security/compliance are required to support the use cases in our Charter. Get Bob's help with this as well.</li> </ul>	
<b><u>Technical Plan Review</u></b> <ul style="list-style-type: none"> <li><i>We are not project managing via this group, we are providing a space to collaborate and report back progress to the IC leadership</i></li> <li>The goal is to put together a high-level overview of the technical work needed, who's doing it, and when it should be done by.</li> <li>Reviewing this will form the basis of the cross-group check in during each call, trying to ask the question "are we on track?" and reporting that back to IC leadership</li> <li><i>Let's take a look at what we have, are the major work items represented?</i></li> </ul>	<ul style="list-style-type: none"> <li>Comment/edits from groups by first couple weeks of Jan <ul style="list-style-type: none"> <li>Groups to review the technical plan and add clarifications/dates after working with their teams</li> <li>In particular, interested in phase 1 and 2 goals</li> </ul> </li> </ul>	Brian/Jack/ Group - 35 min
<b>AOB</b> <ul style="list-style-type: none"> <li><i>Next call is 1/17, happy holidays!</i></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	Brian/Jack - 5 min

## **Notes:**

### Introduction

- [AH] Could we more broadly survey use cases? Break out into a use case doc, see link above. Collect feedback along the way: [document](#)

### Charter

- [Bob] will add more use cases
- [Brian O] will add more use cases
- [Alex] asked about ATO and options for using data from one stack in another...
- [Bob] need guidance from AnVIL and BD Catalyst on the policy issue with ATO...
- [Brian W] potentially to flesh out security and compliance use cases

### Tech Plan

- [BW] don't try to boil the ocean... how to focus on 1-2 things in the first 4 months? Search? WDL/CWL?
- [AH] not boiling the ocean... punt search to stacks... given the data users already know about. Know what data they want, know what workflows they want. If we stay away from search and workflows for April deadline.
- [WL] need to see code/docs

- [AB] the flow of how this works is getting more concrete... multiple groups in parallel might be difficult... focus on getting it to work with current projects. Be aware that there might be changes.
- [GR] document where we are given the caveats from alex... more transparent
- [AB, GR, AH] phase 1 looks OK but may need to adjust... let's revise as needed in new year
- [WL] possible phase 4 after having good examples
- [GR] need to reach out to tech folks on supporting PFB/DRS
- [BG & GR] DRS support on various Fence services... central Fence or distributed Fence... TBD
- [AH] take the Fence issue offline
- [BG] CRDC, BDCatalyst has data model... need data model needed for KF

#### AOB

- ...
- 

20191206

Objective	Initial Working Group call	Date/Time	12/06/2019 12pm PT
Leader(s):	Jack DiGiovanna & Brian O'Connor	Where	<a href="https://meet.google.com/toc-ftdr-cbq?authuser=2&amp;hs=122">https://meet.google.com/toc-ftdr-cbq?authuser=2&amp;hs=122</a>
<b>Participants:</b> <b>SIGN IN: Name &amp; Affiliation</b>	Allison Heath (CHOP/KFDRC) Owen White (University of Maryland) Bill Longabaugh (ISB-CGC) Sima Pandya (FNL) Andrew Rula (Broad) Rich Silva (Broad) Alex Baumann (Broad) Michael Baumann (Broad) Cara Mason (Broad) Patrick Patton (BioData Catalyst CC) Stan Ahalt (BioData Catalyst) Joanna Chau (NHGRI)		

Agenda Item	Action Items	Owner
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<p><b>Introduction</b></p> <ul style="list-style-type: none"> <li>• Who we are? What are we trying to accomplish? What is our time-frame? <ul style="list-style-type: none"> <li>◦ See <a href="#"><u>DRAFT Workshop Report NIH Workshop on Cloud-Based Platforms Interoperability</u></a></li> </ul> </li> <li>• Process: <ul style="list-style-type: none"> <li>◦ 1) establish charter - scientific use cases, technical goals, and timeline</li> <li>◦ 2) have NIH IC program officers sign off on charter</li> <li>◦ 3) write a technical plan</li> <li>◦ 4) implement technical plan and <b>present progress in 6 months</b> at face to face <ul style="list-style-type: none"> <li>■ April!!!</li> <li>■ 4 months</li> </ul> </li> <li>◦ 5) <i>update the charter to include additional goals and repeat the process</i></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Likely the next meeting is April at Broad - revise the charter once this is finalized.</li> </ul>	Brian/Jack - 10 min
<p><b>Charter Review</b></p> <ul style="list-style-type: none"> <li>• See <a href="#"><u>NIH Systems Interoperation Working Group - Charter</u></a></li> <li>• Are we roughly on the same page?</li> <li>• Do we focus on one goal or break into sub-groups in order to focus on multiple goals?</li> <li>• Are we missing anything key for the next 6 months?</li> </ul>	<ul style="list-style-type: none"> <li>• Build in some outreach to raise situational awareness of this interop with other groups. Keep apprised on integrations that are happening naturally (e.g. FHIR, bespoke portal-compute integrations)</li> <li>• Don't let it distract from our 4m timeline</li> <li>• <b>AI: AnVIL + Kids First section plus Catalyst + Kids first section... writeup - Allison H.</b></li> <li>• <b>AI: NCI + AnVIL (gtex) writeup - Jack</b></li> </ul>	Group - 20 min
<p><b>Technical Plan</b></p> <ul style="list-style-type: none"> <li>• See <a href="#"><u>NIH Systems Interoperation Working Group - Technical Plan</u></a></li> <li>• Translate Charter to Technical Plan</li> <li>• <i>Each group needs to fill in their thoughts in the respective sections</i></li> </ul>	<ul style="list-style-type: none"> <li>• </li> </ul>	Group - 20 min
<p><b>Wrapup &amp; Next Steps</b></p> <ul style="list-style-type: none"> <li>• <b>Charter</b> <ul style="list-style-type: none"> <li>◦ Complete suggestions to the charter v1.0.0 by 12/10/2019 (we can iterate on future versions)</li> </ul> </li> <li>• <b>Technical Plan:</b> <ul style="list-style-type: none"> <li>◦ 1) what does this overall plan mean for your stack?</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>AI: Charter v1.0.0 by 12/13/2019</b> (we will hand to Valentina and other NIH IC leadership for review at their meeting on 12/20)</li> </ul>	Brian / Jack - 10 min

<ul style="list-style-type: none"> <li>○ 2) how long will it take to participate (6 months? 12?)</li> <li>○ 3) do you have the funding to participate?</li> <li>○ Complete technical plan v1.0.0 before next call 12/20/2019 (we can iterate on future versions)</li> <li>● <b>Next Call</b> <ul style="list-style-type: none"> <li>○ Focus on the technical plan and what each team has learned</li> <li>○ Start working on a timeline (Epics in Jira???)</li> </ul> </li> <li>● <b>Group List</b> <ul style="list-style-type: none"> <li>○ Sign up if you haven't: <a href="https://forms.gle/jFRUBMzc3X9VdyUc9">https://forms.gle/jFRUBMzc3X9VdyUc9</a></li> </ul> </li> <li>● <b>Schedule for upcoming meetings:</b> <ul style="list-style-type: none"> <li>● Weekly? Bi-weekly?</li> <li>● Friday 12/20/2019 at the current time?</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● <del>Technical plan v1.0.0 before next call 12/20/2019</del></li> <li>● <i>Perfect is the enemy of good here... v1.0.0 is not a final version just a starting point. Let's do the best we can before the holidays.</i></li> </ul>	
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## Notes:

### Intro

- Feedback, 4 months not 6. The next F2F is April!

### Charter Review

- [BG] Call and listen to future interoperability plans/activities for other groups... invite groups to give updates to the group
- [BO] yes, and let's collect other ideas
- [AH] people asking for this functionality of portal to workspace handoff all the time. Initial handoff stuff between kids first and cavatica is light weight. Clinical could be very variable. Low hanging fruit: pointers to data and minimal meta data
- [BG] think about hierarchy about 1) just data , 2) data + metadata, 3) data + clinical metadata etc.
- [JD]: advantageous for the portals and users. One way to do this but gain different analysis environments.
- [RS]: need tech details
- [G]: Rich, there's more work but it's what we're doing for Catalyst
- [AH]: look for scientific use case to help prioritize technical work
- [OW]: DCPPC example was artificial... didn't suggest researcher could do something new. Make sure an end user could achieve this. Allison mentioned people are asking for access to more data. Get clinical researchers from her stakeholders
- [AH]: has concrete use cases ... we spent some time filling these in
- Consensus seems to be bi-weekly at most for meetings.

### Tech Plan

- Defer on this... finish the charter v1.0.0 by 12/13 first.

Next steps, next call

- Call every 2 weeks
- Fill in the registration link, send it out
- AI: AnVIL + Kids First section plus Catalyst + Kids first section... writeup - Allison H.
- AI: NCI + AnVIL (gtex) writeup - Jack
- **AI: Charter v1.0.0 by 12/13/2019** (we will hand to Valentina and other NIH IC leadership for review at their meeting on 12/20)