

API Working Group Breakout Session BD2K AHM Friday, November 13th 2015

APIs allows interoperability between and amongst digital research objects. This session will focus on developing an understanding of what has currently been developed within BD2K , what should be adopted from the community and what should be developed.

- What standard APIs should BD2K adopt (GA4GH, Open mHealth, others?)
- What are the best practices associated with the development of APIs?
- How can and should metadata be incorporated in APIs?
- Adopting SMART APIs

Bagit Specification (Carl Kessleman)
Globus endpoints (Ravi Madduri)

Some questions for consideration (based on earlier discussions):

1. What each of the BD2K Centers of Excellence (CoE), and the targeted software development awardees are presently working on in terms of software releases and modules. A list of such efforts would greatly help the overall community understand the planned developments and ways in which we can work together. This listing should include some technical details of the API, e.g. HTTP, ReST, available client libraries and links to the code (ideally on GitHub or similar versioned system).
2. Determine if CoEs and other BD2K awardees have already created APIs. If so, what are the lessons learned, and how can we leverage your experience for those who are presently in the process of defining their own APIs (and don't know where to start)?
3. Are there resources that exist outside of the CoEs and BD2K that we as a community can leverage? Similarly, are there other external APIs that are well-crafted that we can learn from?
4. How can we specify and link the inputs/outputs (data or other produced entity) from different software modules created in the BD2K community? What technologies could be used to facilitate this task?
5. What are some use cases that we can come up with as a community that will demonstrate interoperability of BD2K developments across sites? Several CoEs are already doing this, and we would like to identify this efforts in addition to showcasing collaboration between multiple groups/sites.
6. Metadata APIs should be synchronized with the Metadata WG. Do we have recommendations for the Metadata WG in this regard?

<http://www.biocatalogue.org> a catalogue for REST and SOAP APIs for Life science web services. The software is available as too!