

# Building Blocks Working Group Meeting Summary

## Meeting Summary

| <u>Date and Time</u>  | <u>Location</u> | <u>Note Taker</u>   | <u>Next Meeting Date</u>                      |
|---|-----------------|---|---|
| Thursday, December 5, 2024, 1:00pm-2:00PM ET  | Virtual         | Sadrina Petit, Project Analyst, Digital Health Interoperability | Thursday, December 12, 2024, 1:00pm-2:00PM ET |
| <b>Meeting Agenda:</b> <ol style="list-style-type: none"> <li>1. Review feedback from last week</li> <li>2. Bulk Export discussion</li> <li>3. Recommendation for Draft v. 1.0.0</li> </ol>         |                 |   |   |
| <b>Presenters</b> <ul style="list-style-type: none"> <li>• Dean Matthews – Service Directory, Product Owner</li> <li>• Irfan Hakim - Functional &amp; Industry Consultant  Data &amp; AI</li> </ul> |                 |   |   |
| <b>Invited Guests</b> <ul style="list-style-type: none"> <li>• Public</li> </ul>  |                 |   |   |

### 1. Welcome and Introductions

D. Matthews welcomed all participants to the working group meeting. Meeting materials and recording of the session will be made available on the InfoCentral working group.

### 2. Content Presentation

The Infoway Team presented each of the agenda items as outlined above. In the meeting, we reviewed feedback from last week, engaged in a discussion about Bulk Export, and provided recommendations for Draft v1.0.0.

- The video recording is available [here](#)
- The presentation deck is available [here](#)

### 3. Summary

The meeting focused on the development and implementation of bulk export functionality for the Service Directory. Key points included using the NDJSON format for output and implementing asynchronous processing. Example use cases were discussed, such as opening new locations and updating local data daily. The roles of FHIR authorization and resource servers were clarified, along with the need for an output file server. Participants reviewed sample queries and error handling approaches for bulk exports,

emphasizing data consistency and avoiding broken references. The timeline for incorporating these features into the CSD guide was outlined, with a target release in March following the Plugathon.

#### 4. Questions raised during the working group meeting

##### **What functionalities and formats are planned for the bulk export feature?**

The bulk export will support asynchronous operations using the NDJSON format, consistent with standards used in other jurisdictions and aligned with FHIR. The guide will also include recommendations for file transfer processes.

##### **How could bulk export be used in specific scenarios?**

- **New Location:** A new healthcare location (e.g., clinic or mobile service) retrieves a directory for its surrounding area (e.g., 50-100 km).
- **Daily Updates:** An application refreshes its local data set nightly via bulk export to stay current.
- **Clinician-Location Associations:** A recurring export updates associations between clinicians and healthcare locations.

##### **Does bulk export support location-based filtering?**

The bulk export retrieves all relevant data, which can then be filtered locally by the user or system. This approach simplifies the export process but requires client-side filtering.

##### **Will NDJSON files be compressed, and is GZIP supported?**

While GZIP compression was suggested, it was later clarified that it is not currently supported. The team will explore feasibility for future guidance.

##### **What is the role of the output file server in the bulk export process?**

The process assumes the presence of a FHIR authorization server, a FHIR resource server, and potentially a new output file server to handle file transfers. The output server's specifics depend on the architecture but could include options like Azure Blob Storage or other back-end systems.

##### **Are there alternative authorization methods for bulk export?**

Authorization processes will be treated as recommendations, with flexibility to accommodate different use cases and architectures.

##### **How does this align with existing international and jurisdictional guidance?**

The guidance builds on international FHIR standards and aligns with Ontario's versions of the service directory, ensuring consistency while allowing for jurisdictional differences.

##### **Will clinician-location associations be refreshed through bulk export?**

Yes, this use case is similar to daily updates, where a full batch export updates associations between clinicians and healthcare locations.

##### **What feedback mechanisms are available for additional questions or examples?**

The working group members are encouraged to comment in the working group forum or directly contact the team to add more examples or ask questions.

### **What is the "art of the possible" for service roles in bulk export?**

The guide provides a high-level overview of possible configurations, such as FHIR servers and file servers, but emphasizes flexibility to adapt to specific system architectures. Detailed implementation will depend on organizational needs and technical constraints.

### **What type of authentication is recommended for bulk export operations?**

While authentication is recommended, the CSD framework does not mandate a specific method (e.g., SMART on FHIR or OAuth). It supports flexibility to align with existing systems. The group will consider whether a national standard for authentication should be developed.

### **How will search parameters work in bulk export queries?**

Bulk export will support parameters such as `type` (for resource types) and `since` (to specify a timestamp for incremental updates). These parameters allow systems to retrieve specific data efficiently.

### **What does a sample bulk export output look like?**

A bulk export output consists of multiple records grouped by resource type (e.g., Practitioner, Location). The response includes authorization tokens and status endpoints to monitor the export process (e.g., "in progress," "complete," or "error").

### **How should deletions be handled in the service directory?**

- Deletions will be included as part of the bulk export output, flagged as removed resources.
- Associated resources (e.g., practitioner roles) referencing the deleted resource must also be updated or removed to avoid broken references.

### **Will bulk export handle related resources with dependencies?**

When a resource is deleted, related resources must be updated or flagged as deleted in the same export. The system ensures consistency by including all changes and deletions in a single bulk export query.

### **What are common errors during bulk export, and how will they be managed?**

Errors may occur during query processing or while exporting data. The system will use standard FHIR error reporting mechanisms (e.g., OperationOutcome resources) to provide detailed feedback on the nature of the error.

### **What is the timeline for finalizing bulk export functionality in the guide?**

- Bulk export functionality will be discussed during the Plugathon and Projectathon events.
- Feedback from these events and working group sessions will be incorporated into the guide, with a draft ballot version targeted for release in March.

### **Should implementations wait for the finalized guide?**

The working group suggested waiting until after the balloting process (March release) to ensure alignment with the final version. However, stakeholders are encouraged to provide feedback on the current version if they are moving forward with implementation.

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### **Should the ballot for bulk export functionality wait until after the Plugathon?**

Yes, delaying the ballot allows for testing and refinement during the Plugathon. The functionality can then be incorporated into the draft ballot, ensuring it's robust and aligns with stakeholder needs.

### **Does delaying the ballot impact current implementations?**

Since bulk export is an enhancement to the guide and doesn't change core resources, most attendees agreed that waiting until after the Plugathon is reasonable. This ensures the feature is well-tested before being finalized.

### How should deletions and errors in the service directory be handled?

- **Deletions:** Resources should be marked as inactive rather than deleted outright, except in cases of data entry errors. Deletion history is maintained for auditing purposes.
- **Errors:** Errors should follow FHIR standards, providing detailed responses via `OperationOutcome` resources.

### What are the two approaches for handling updates?

- **Full Snapshot:** Provides a complete dataset for consistency.
- **Partial Updates:** Supplies only changes (deltas) since the last export. This approach is efficient but requires careful handling of references to deleted or updated resources.

### Should deletions include references to dependent resources?

When a resource is deleted, all dependent resources referencing it must be updated or removed. These changes should be included in the same export batch to avoid broken references.

### How does the system decide between deletion and status updates?

- **Inactive Status:** Used for most cases (e.g., retirements, discontinued services).
- **Deletion:** Reserved for data entry errors. Directory owners decide the approach based on their operational requirements.

### What are the next steps for bulk export refinement?

- Feedback from the Plugathon and working group sessions will guide updates.
- Testing will focus on practical use cases, such as deletions, status changes, and error handling.
- The finalized draft will be included in the March ballot.

### What are the registration deadlines for the Plugathon and Projectathon?

- **Question:** When are the registration deadlines for the upcoming events?
- **Answer:**
  - **Plugathon:** Registration deadline is January 13.
  - **Projectathon:** Registration deadline is December 13. However, final confirmation of dates was pending and will be shared with participants.

### What joint efforts are planned with the eRec team during the Plugathon?

Joint sessions will focus on:

- Aligning data elements and terminologies.
- Exploring how both projects can support national and international standards.
- Discussing shared use cases to streamline workflows.