Bulk Data FHIR IG Proposal
Bulk Data

Owning work group name

FHIR Infrastructure

Committee Approval Date:

2018-02-18

Contributing or Reviewing Work Groups

- Security
- Public Health

FHIR Development Project Insight ID

1497

Scope of coverage

The core FHIR specification describes an asynchronous request pattern (https://www.hl7.org/fhir/async.html). This Implementation Guide will define secure FHIR export Operations that uses this capability to provide an authenticated and authorized client with the ability to register as a backend service and retrieve any data in a FHIR server, data on all patients in a server, or data on a group of patients while optionally specifying data since a certain date. The implementation guide is not realm-specific.

IG Purpose

Today FHIR applications are also built for reporting, analytics, population health, and other use cases which look at patients in aggregate. FHIR’s current APIs are suited to enable access to a few patients at a time or make ad hoc queries but do not cover the bulk data transmission use case. The industry has an need to transmit batches of data for entire populations or cohorts from data systems to apps or other organizations for workflows like provider to payer reporting or data migrations between systems. Additionally regulation is pushing for more standardized methods for transmitting all health data and reporting on it. As the data housed in health systems transitions to the FHIR standard, a standardized method to transfer FHIR server data in large tranches or entire data migrations is needed. To facilitate data transfer between FHIR servers and client applications or other systems, a more technically applicable method for bulk data transfer is required.

Content location

https://github.com/HL7/bulk-data-export

Proposed IG realm and code

uv/bulk-data

Maintenance Plan

The SMART Health IT team intends to provide ongoing support of this implementation guide

Short Description

This Implementation Guide defines secure FHIR export Operations that use this capability to provide an authenticated and authorized client with the ability to register as a backend service and retrieve any data in a FHIR server, data on all patients in a server, or data on a group of patients while optionally specifying data since a certain date.

Long Description

This Implementation Guide defines secure FHIR export Operations that use this capability to provide an authenticated and authorized client with the ability to register as a backend service and retrieve any data in a FHIR server, data on all patients in a server, or data on a group of patients while optionally specifying data since a certain date. Applications can use the bulk data export functionality to facilitate data transfer among back-end systems, various organizations, and for reporting or public health use cases.
Involved parties

Initial development by SMART Health IT and subsequent work by the Argonaut Project, HL7 FHIR Infrastructure, Security and Public Health work groups.

Expected implementations

Boston Children’s Hospital is implementing the bulk data export standard through a grant from the ONC. Specifically the SMART Health IT team is taking its prototype bulk data export server and implementing it with the Accountable Care Organization at Boston Children’s. The bulk data standard will be used to transmit data between providers and payers in the context of this grant.

Content sources

The guide will use the following standards:

- HL7 Fast Health Interoperability Resources (FHIR) Release 2, 3, 4, [https://www.hl7.org/fhir/](https://www.hl7.org/fhir/)
- Newline-delimited JSON (NDJSON) [http://ndjson.org](http://ndjson.org)

Example Scenarios

- Migration of data between one electronic medical record for clinical data repository and another
- Transmission of patient records for reporting use cases between payors and providers
- Full backup of data contained within a clinical data repository
- Exporting groups of patients between systems that should only have certain access based on business contracts
- Combination of Federated Data Systems for reporting or public health use cases on populations level data
- Exporting healthcare directory content for distribution [https://confluence.hl7.org/display/PA/Bulk+Data+and+Directories](https://confluence.hl7.org/display/PA/Bulk+Data+and+Directories)

IG Relationships

N/A

Timelines

Ready to Ballot Mar. 15

When IG Proposal Is Complete

When you have completed your proposal, please send an email to FMGcontact@HL7.org

FMG Notes