



The ODS-to-ODS Connector is initially intended to support the use case where an organization (e.g. Education Analytics) is collecting data from one or more source district-level Ed-Fi ODS APIs for the purpose of providing back some related services (e.g. analytics and reporting). To satisfy this use case, the following functionality is required:

1. Support API v3.1 (or later).
2. Move all data and subsequent changes from a source ODS to the collecting entity's target ODS using just the API (no direct database access).
3. Provide ability to control the timing of data movement without the involvement of a 3rd party.
4. Provide ability for the collecting organization to specify a subset of resources to be processed (e.g. the resources necessary to support their services).
5. Provide the source APIs with the ability to constrain the data (i.e. apply appropriate Profiles).
6. Provide ability for the collecting organization to translate descriptors, as necessary, to support their use cases.

For the first requirement of supporting API v3.1 or later, API hosts who wish to participate as a data source to a trusted collector would need to ensure that the "Change Queries" feature has been enabled. Additionally, the connector will utilize the dependency metadata endpoint feature implemented in [ODS-2589](#) (and improved by [ODS-3024](#)) to control the order of resource processing.

For the second requirement of performing data movement using just the API, we will develop the functionality for moving data from one ODS to another, as follows:

- All data – paged GET requests against resources in dependency order, combined with individual POSTs.
- Changed data – paged GET requests using "Change Queries" functionality in dependency order, combined with individual POSTs.

For the third requirement related to the timing of data processing, we will enable the collecting organization to initiate the processing as needed to support their use cases. For this effort, we will work specifically to satisfy the operational

requirements of Ed Analytics using an MVP approach. This will likely be a command-line style execution initially, but it could eventually be more tightly integrated into the Ed-Fi technology offering (e.g. executed as a background job scheduled and managed using the Hangfire Dashboard exposed on the Admin App website – but this would need further analysis).

For the fourth requirement of supporting the specification of a subset of resources to be collected, we will provide a means for the collecting organization to configure the connector to limit the scope of their interest (the exact mechanism is TBD but will be developed using an MVP approach).

For the fifth requirement of allowing the source APIs to constrain the data, the source ODS/APIs will need to add and deploy the API profiles if they wish to apply specific constraints to the outgoing data being collected. This process would be made easier if dynamic profiles were developed and made available through the “out-of-the-box” Ed-Fi ODS API technology offering (a spike of this functionality has been requested by the Ed-Fi Alliance).

For the final requirement of translating descriptors, the connector will read all the descriptors from the source APIs and attempt to add them to the target ODS (this will require special permissions on the target API for the connector). The data will then be gathered from all resources and written into the target ODS *without* explicit translation. Subsequent data analysis performed by the collecting organization that depends on a set of custom descriptors (i.e. similar to the Ed-Fi Dashboards processing) will need to utilize the translation metadata that is currently supported at the ODS level. This metadata will need to be initialized by:

- Mapping the source descriptors to the collector’s descriptors.
- Loading these descriptor mappings into the *interop* tables of the collector’s target ODS.
- Using the *interop.OperationalContextSupport* database view to translate the descriptors used in queries to the collector’s operational context. This database view is used by the Ed-Fi Dashboards processing from the 3.x ODS.