What's New in v7.1

This section provides an overview of the new features in v7.1 of the Ed-Fi ODS / API, targeted at deployment starting in the 2024–2025 school year. A comprehensive list of all changes is in the Release Notes section.

The changes include:

- Data Model Changes
- External Cache Performance Optimization
- Support for OpenAPI 3
- MetaEd IDE v4.3

Detail about each change follows.

Improvements & Enhancements

This section briefly describes the new features and enhancements built into the Ed-Fi ODS / API Platform v7.1 and provides links to additional documentation.

Data Model Changes

Ed-Fi ODS / API v7.1 adds support for implementing Ed-Fi Data Standard v5, which introduces important updates that impact multiple domains of the Ed-Fi data model. Refer to What's New - v5 for details.

There are breaking changes to the model so implementers are advised to review the changes carefully.

External Cache Performance Optimization

The ODS / API utilizes caching for descriptors, person-USI-to-Unique-Id mapping and API client details used for authorization, which improves API performance by eliminating the need for additional database calls. However, when this cache is store in memory, it increases memory requirements, repetitions on large scale implementation with multiple API servers and potentially leads to cache sync issues.

In ODS / API v6.1, an optional feature was introduced, enabling API hosts to leverage a shared external distributed cache service, specifically Redis. During the development of this feature, the existing cache access logic that was written optimized for local cache access and speed was adapted for use with the distributed cache. While this adaptor successfully avoided multiple copies and reduced cache sync issues, it did not address optimization of cache access over the network.

A notable enhancement in ODS / API v7.1 focuses on optimizing the network usage of person-USI-to-Unique-Id mapping in external cache storage. In previous versions, the entire serialized mappings were transferred to and deserialized from an external cache provider like Redis every time a translation was needed. With the latest release, this process has been refined to minimize network overhead. Refer to How To: Use an External Cache Provider for the Ed-Fi API for details on how to enable external caching and how to choose external or in-memory caching for specific cache data.

Support for OpenAPI 3

The Ed-Fi ODS/API exposes metadata based on the open-source OpenAPI Specification (OAS), which is a widely adopted, standardized format for describing REST APIs. This metadata comprehensively outlines all API resources, including inputs, HTTP verbs, and the schema of the exposed resources. The OpenAPI specification is utilized in generating Online Documentation, and by the code generation tools to Generate SDKs. In earlier versions, the ODS/API exposed OAS version 2. However, in ODS/API 7.1, metadata is exposed in OAS v3 by default, while still allowing access to OAS v2 through a version parameter for backward compatibility. This ensures a smooth transition for users while providing compatibility with previous specification.

MetaEd IDE v4.3

Implementing extensions in Ed-Fi ODS / API v7.1 requires implementers to update to MetaEd IDE v4.3. Refer to MetaEd 4.3 What's New for details on latest updates and improvements.

Improvements & Enhancements - Version v7.0

Refer to What's New in Previous v7.x Releases for details on the features added in v7.0 of the Ed-Fi ODS / API.