

Health Data Intelligence Single Patient and Patient Population EHI Export Data Overview and User Instructions

Single Patient and Patient Population Electronic Health Information (EHI) Export allows for the extraction and export of a single patient's or a patient population's EHI from an Office of the National Coordinator for Health IT (ONC)-certified Oracle Health Data Intelligence (HDI) system's Longitudinal Record in an electronic and computable (machine-processable) format. The export process extracts all data for a single patient or a patient population in the target HDI platform's Longitudinal Record and creates one or more JavaScript Object Notation (JSON) files to hold the data. This data includes core EHR data stored in the Longitudinal Record on the Health Data Intelligence (HDI) platform.

The following information provides instructions for executing export operations using the public APIs, and for consumers of an export to understand and make use of the data as a complement to the provided data format specifications. The actual data format specifications are available in the .PDF file titled "EHI Export Data Format Specifications" published alongside this document at <https://www.oracle.com/health/regulatory/certified-health-it/> (see under the Health Data Intelligence heading in the Electronic Health Information (EHI) Export section of the page).

The EHI Exports for Longitudinal Records on HDI are requested through the Longitudinal Record Bulk Extract API. The EHI Extract is made available for download through the Data Syndication API. Once requested, the download is available for 21 days.

Getting Started – Authentication

Health Data Intelligence APIs support two methods for authenticating API requests. The simpler, preferred method is bearer token authentication. Alternatively, two-legged OAuth 1.0a authentication is also supported.

To send requests to the APIs, you need an Oracle system account that includes a bearer token, and a set of OAuth credentials called the consumer key and consumer secret. For detailed steps to take to get system access see [Getting-started](#).

Before requesting an EHI Export, Oracle Health must enable the Longitudinal Record Bulk Extract API for your tenant and for the Data Syndication API, you must have at least one feed and at least one channel for that feed. Once these pre-requisites are in place, the EHI Export operations can be executed at the customer's discretion without further assistance required from Oracle Health. Customers should contact their Health Data Intelligence engagement leader or log a service record (SR) in [eService](#) to the Longitudinal Record to request the enablement of Longitudinal Record Bulk Extract API and a new feed for the Longitudinal Record Bulk Extract feed type.

Requesting an EHI Export

Requesting and then acquiring an EHI Export and its contents involves making standard REST requests against two distinct Oracle Public APIs detailed below. Both APIs are protected by OAuth as detailed in the [Getting-started](#) documentation.

Longitudinal Record Bulk Extract API

The **Bulk Extract API** follows standard Oracle Public API conventions including the standard Oracle Public API URL structure:

`https://{tenant}.api.{region}.healtheintent.com/{api}/{version}/{resource}`

Where the API is called *longitudinal-record* and the resource follows the pattern below:

`/populations/{population}/bulk-extracts/{extract}`

Where the extract is optional and is only required to *cancel* an extract request or to get information specific only to a single extract request.

The **Bulk Extract API** has four main features accessed through different endpoints:

- Requesting a **population level** extract:
 - Can be accessed under the following resource pattern:
 - `/populations/{population}/bulk-extracts`
 - Is a standard REST POST request without a body.
 - In the reply to a successful request, a unique identifier will be returned that identifies the extract.
- Requesting a **patient level** extract:
 - Can be accessed under the following resource pattern:
 - `/populations/{population}/bulk-extracts`
 - Is a standard REST POST request with a body containing a single object holding a filter object denoting a single patientId valued with the empId of the target patient.
 - In the reply to a successful request, a unique identifier will be returned that identifies the extract.
- Cancelling an INPROGRESS extract request:
 - Can be accessed under the following resource pattern:
 - `/populations/{population}/bulk-extracts/{extract}/cancel`
 - Is a standard REST POST request without a body.
 - Where the extract is the identifier previously acquired from the Bulk Extract API either by requesting an extract or querying previous requests.
- Listing previous extract requests:
 - Can be accessed under the following resource pattern:
 - `/populations/{population}/bulk-extracts`
 - Is a standard REST GET request.
 - In the reply, a list of previous extracts will be returned including an identifier uniquely identifying each extract and an identifier paired to each FINISHED extract denoting the delivery through which the extracted files can be acquired
- Getting information about a single extract request:

- Can be accessed under the following resource pattern:
 - /populations/{population}/bulk-extracts/{extract}
 - Is a standard REST GET request.
- Where the extract is the identifier previously acquired from the Bulk Extract API either by requesting an extract or querying previous requests.
- In the reply, information about a previous extract will be returned including an identifier uniquely identifying the extract and an identifier paired to the FINISHED extract denoting the delivery through which the extracted files can be acquired.

Data Syndication API

The **Data Syndication API** can be used to acquire the files related to a delivery that has been initiated through a EHI Export of Longitudinal Record on HDI extraction request using the **Bulk Extract API**.

It follows standard Oracle Public API conventions such as the standard Oracle Public API URL structure:

`https://{tenant}.api.{region}.healtheintent.com/{api}/{version}/{resource}`

Where the API is called *data-syndication* and in the cases relevant to an EHI Export of Longitudinal Record on HDI the resource follows the patterns below:

`/deliveries/{delivery}`
`/downloads/{delivery}`

Where delivery can be acquired from the **Bulk Extract API** through querying information about a FINISHED extract either through *listing previous extracts* or *getting information about a single extract*.

The relevant features of the **Data Syndication API** can be accessed through two different endpoints:

- Requesting information about the status of a delivery
 - Can be accessed under the following resource pattern:
 - `/deliveries/{delivery}`
 - Is a standard REST GET request.
 - In the reply, the *status* of the delivery will be returned.
- Downloading the files hosting the contents of the requested extract
 - Can be accessed under the following resource pattern:
 - `/downloads/{delivery}`
 - Is a standard REST GET request replying with binary data.
 - In the case of a delivery with a *status* of DELIVERED, the reply of the request is binary bytes that will assemble into a standard `.tar.gz` file containing the Longitudinal Records.

More information

See public API documentation <https://docs.healtheintent.com/>.