Abstract
This document explains how automated and incremental data extracts can be generated through the Oracle Enterprise Resource Planning (ERP) Cloud.
Problem Statement

Generating data extracts from an IT system is a very common activity. It is usually done in two ways:

- Reports – meant for end users
- Interface extracts – meant for downstream systems

Traditionally, reports are built using various reporting tools without the direct use of back-end (database access) tools. However, interface extract programs are primarily built by writing database queries with the direct use of back-end tools. Interface data extracts are usually ‘incremental’ in nature. Some of the incremental extract techniques are as follows:

- Update an attribute of the record extracted to signify that it has been successfully extracted
- Insert the record identifier, which has been successfully extracted to a custom table
- Update the program submission time of the last successful extract in a custom profile or lookup

All of the above techniques require back-end access with insert or update rights.

Oracle ERP Cloud does not provide this back-end access to subscribers. Therefore, users are faced with the question of how to achieve incremental interface data extraction through the same.

Audience

This document is intended for the following audiences:

- Oracle Fusion Application users
- Consultants and support providers in the Oracle Fusion ecosystem
Oracle ERP Cloud provides many out-of-the-box reporting tools. Business Intelligence Publisher (BIP) is one such tool that is used to extract high volumes of data from the Oracle ERP Cloud. To extract incremental data, a reconnaissance technique is used in the BIP report's data set query. The technique involves a comparison of the timestamp of the records with the timestamp of the last successful run of the corresponding BIP report.

Let us assume that the incremental data is to be extracted from the general ledger (GL) journal tables. A BIP report is developed to extract this data. The timestamp of the last successful execution of the BIP report can be fetched from the request history table. This timestamp can be compared to the creation timestamp of journal data. If the creation timestamp of the journal is after the latest successful run of the BIP report, this incremental journal data would be extracted.

The following diagram illustrates the concept of how the BIP data model helps in the extraction of incremental data:

In the above diagram, journal 101 was the only journal created between the process start time of BIP request 1010 and 1011. Hence, only journal 101 was published in the output of request 1011.

**Solution benefits**

- Facilitates automated and incremental data extracts from the Oracle ERP Cloud using out-of-the-box features
- Overcomes the restrictions posed by the unavailability of back-end access
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