Reference Document Data Archival/Purging Release 14.7.4.0.0 Part No. G10007-01 June 2024

FINANCIAL SERVICES





Reference Document – Data Archival/Purging December 2024 Version 14.7.4.0.0

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# 1. Preface

## 1.1 Introduction

This document helps you understand the Data Archival in Oracle Banking Payments.

This document also explains the Interval Partitioning feature of Oracle Database to perform Data Archival in Oracle Banking Payments.

#### 1.2 Audience

This document is intended for the following audience:

- Customers
- Partners
- Implementation & IT Staff

## 1.3 **Documentation Accessibility**

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <a href="http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc">http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc</a>.



## 2. Data Archival in Oracle Banking Payments

## 2.1 Introduction

This chapter provides information on the Data Archival in Oracle Banking Payments. It fulfill the business requirements to archive data from the main Transaction-processing tables at a definable frequency to avoid performance degradation. It also helps to retrieve & view archived data on demand.

This chapter contains the following sections:

- Interval Partitioning of Oracle Database
- Data Archival in Oracle Banking Payments

### 2.2 Interval Partitioning of Oracle Database

Database partitioning is the process of splitting tables or indexes into smaller and manageable pieces. Logically there is only one table or index when the application access the database. But due to partitioning, that table or index consists of many physical partitions. Each partition is an independent object controlled either by itself or as part of the larger object.

Interval Partitioning performs Data Archival in Oracle Banking Payments. It is one of the nine schemes of partitioning in Oracle Database.

The main characteristics of Interval Partitioning are:

- It performs partition of table, basis on the range of values in a particular column.
- It helps to define partition criteria basis on a date or a time-interval type column.
- It also aids in the exclusion of data beyond the archival period in the low-cost storage device.
- Designing application tables using Interval Partitions helps address the Data Archival requirements automatically.

To understand the Interval Partition, take an example to archive data of 13 months. Assume that the 13 months data need to be archived quarterly. The transaction table must contain a date datatype column to perform interval partitioning of the table. Let's call this the Booking Date column. Each time a data transaction happens, the transaction creation date goes into the Booking Date column. In the Transaction-processing tables, the partition criterion must set quarterly to segregate each quarter data into separate partitions within the same table. Therefore, for 13 months, data segregates into five different tables.

### 2.3 Data Archival in Oracle Banking Payments

The Data Archival process involves the following steps:

- A date column TXN\_ARCH\_DT (Transaction Archival Date) get added to all the main Transaction-processing tables. This column denotes the transaction creation date.
- The partitioning of tables is implemented only based on the transaction creation date.
- To perform Interval Partition of the table, install the Partition Script. The Partition Script comes with each software release.
- In Partition Script, the time-frequency is set at three months interval. To change the Data Archival period, modify the Partition Script before installation.



• After installation of the Partition Script, all transaction data populates in appropriate partitions of the tables.

On existing data, a default conversion script also forms part of the Partition Script. The Partition Script contains a default clause to house the existing records. So, the default value populates in the TXN\_ARCH\_DT column. All the new transaction after software upgrade goes into new partitions.

