

# Oracle® Banking Payments

Weblogic - RecommendationsWebLogic 12c  
(12.1.3, 12.2.1.3, 12.2.1.4.0)



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Oracle Banking Payments WebLogic - RecommendationsWebLogic 12c (12.1.3, 12.2.1.3, 12.2.1.4.0), Release 14.8.0.0.0 WebLogic 12c (12.1.3, 12.2.1.3, 12.2.1.4.0)

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# 1

## Preface

- [Purpose](#)
- [Audience](#)  
This manual is intended for the following User/User Roles:
- [Documentation Accessibility](#)
- [Critical Patches](#)
- [Diversity and Inclusion](#)
- [Conventions](#)

### 1.1 Purpose

This guide is designed to help acquaint you with the Oracle Banking Payments application. This guide provides answers to specific features and procedures that the user need to be aware of the module to function successfully.

### 1.2 Audience

This manual is intended for the following User/User Roles:

**Table 1-1 User Roles**

Role	Function
Implementation & IT Staff	Implementation & Maintenance of the Software

### 1.3 [Documentation Accessibility](#)

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

#### **Access to Oracle Support**

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

### 1.4 Critical Patches

Oracle advises customers to get all their security vulnerability information from the Oracle Critical Patch Update Advisory, which is available at [Critical Patches, Security Alerts and Bulletins](#). All critical patches should be applied in a timely manner to make sure effective security, as strongly recommended by [Oracle Software Security Assurance](#).

## 1.5 Diversity and Inclusion

Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and partners, we are working to remove insensitive terms from our products and documentation. We are also mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve. Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

## 1.6 Conventions

The following text conventions are used in this document:

Convention	Meaning
<b>boldface</b>	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
<code>monospace</code>	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

## 2

# Safe harbor statement

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions.

The development, release, timing, and pricing of any features or functionality described for Oracle's products may change and remains at the sole discretion of Oracle Corporation.

# 3

## Program agenda

1. [Introduction](#)
2. [Data Source Configuration](#)
3. [JTA Configuration](#)
  - [Introduction](#)
  - [Data Source Configuration](#)
  - [Cache Topic Cluster Setup](#)

### 3.1 Introduction

This document is prepared for the Weblogic Server Administrators who manage and configure the domain resources like managed server, cluster, datasource, JMS server etc.

Weblogic resources are created with a default value for each parameter. This document will only highlight those parameter whose value must be modified other than the default value.



#### Note:

These are the product recommended values which work for most cases. However during the product implementation one has to understand the product usage at site, monitor these resource utilization to see if the recommended parameter values are working for those usages and adjust the parameter values accordingly.

### 3.2 Data Source Configuration

Oracle Banking Payments require two types of data sources as mentioned in the setup guide. In this section we will list down the configuration parameter setting common for both types of datasource followed by setting for specific datasource.

Types of datasoruce:

1. Non-XA Datasource with JTA Support
2. Non-XA Datasource without JTA Support
3. XA Datasource
  - [Data Source Configuration – Common Setting](#)
  - [Data Source Configuration – Non-XA Datasource with JTA Support](#)
  - [JTA Configuration](#)

### 3.2.1 Data Source Configuration – Common Setting

Section	Parameter Name	Value	Description
Connection Pool	Initial Capacity	50	Pool will be reserved with this number of connections once created.
Connection Pool	Maximum Capacity	150	Maximum number of connections this pool can create.
Connection Pool	Minimum Capacity	50	Should be same as initial capacity. Shrinking configuration uses this value.
Connection Pool	Inactive Connection Timeout	900	Time duration for which a connection once in use can remain idle. After this time the connection will be release to a pool and a thread that is using this connection will get an exception.

### 3.2.2 Data Source Configuration – Non-XA Datasource with JTA Support

These are the datasources ending with \_GTXN, used in a OLTP flow. These configuration enable the XA feature on the connection only when multiple resources are involved in a transaction, thereby eliminating the XA overhead in cases where a simple connection is sufficient.

Section	Parameter Name	Value	Description
Transaction	Supports Global Transaction	Check	Connections from this pool will be managed by Weblogic Transaction Manager (JTA) when this is enabled.
Transaction	Logging Last Resource	Select	This is an efficient option to enabled XA behavior on this connection when multiple resources are involved in a transaction. This connection will be the last one to get committed in a transaction.
Connection Pool	Inactive Connection Timeout	0	Disable the connection recovery at pool level. JTA timeout will control this.

### 3.2.3 JTA Configuration

Section	Parameter Name	Value	Description
JTA	Timeout seconds	18000	Time duration after which the transaction will be terminated and underneath resources will be released back to their respective pool.

## 3.3 Cache Topic Cluster Setup

To use Cache Topic in a cluster setup, the following setup are required:

- Configuration at the WebLogic Console level
- Additional changes are part of the OBPM deployment



## 1. Configuration at the WebLogic console

- For cluster setup Topic should be created as “Uniform Distributed Topic” with Forwarding Policy as “Partitioned”. Below are sample screenshot. If there any existing CACHE\_TOPIC without uniform distribution type then delete same and create fresh.

<input type="checkbox"/> CACHE_TOPIC	Uniform Distributed Topic	jms/CACHE_TOPIC	PMSBD	PMJMSServer
--------------------------------------	---------------------------	-----------------	-------	-------------

  

Settings for CACHE\_TOPIC

Configuration

Security

Monitoring

Subdeployment

Notes

General

Thresholds and Quotas

Overrides

Logging

Delivery Failure

Multicast

Members

Click the **Lock & Edit** button in the Change Center to modify the settings on this page.

Save

Use this page to define the general configuration for this distributed topic, such as selecting a destination key for sorting messages as they arrive on the distributed topic members.

Name:

CACHE\_TOPIC

The name of this distributed topic. [More Info...](#)

JNDI Name:

jms/CACHE\_TOPIC

The JNDI name used to look up this topic within the JNDI namespace. [More Info...](#)

Forwarding Policy:

Partitioned

The uniform distributed topic message Forwarding Policy specifies whether a sent message is forwarded to all members. [More Info...](#)

Template:

None

The JMS template from which the destination is derived. A template provides an efficient means of defining multiple destinations with similar configuration values. [More Info...](#)

Destination Keys:

Available:

Chosen:

The list of potential destination keys for sorting the messages that arrive on a JMS destination. [More Info...](#)

☐ Default Targeting Enabled

Specifies whether this JMS resource defaults to the parent module's targeting or uses the subdeployment targeting mechanism. [More Info...](#)

Advanced

Save

- Topic should Advance target to Subdeployment which used for all other queues, connection factories and Target to JMS Server which is further targeted to Cluster. Below are sample screenshot.

<input type="checkbox"/> CACHE_TOPIC	Uniform Distributed Topic	jms/CACHE_TOPIC	PMSBD	PMJMSServer
--------------------------------------	---------------------------	-----------------	-------	-------------

### JMS Server should target to Cluster

<input type="checkbox"/> Name	Persistent Store	Target	Current Target	Health
<input type="checkbox"/> PMJMSServer	PMFilestore	Cluster-1	Cluster-1	OK

Please note Persistent store map to JMS Server should also map to Cluster.

## 2. Additional Changes in OBPM deployment (.ear)

- Open the OBPM deployment (ear) and navigate to PMEJB.jar file. Open PMEJB.jar file and navigate to META-INF folder. You will find ejb-jar.xml file. Modify this file by adding following additional tags.  

```
<message-driven> <ejb-name>CacheEvictTopicMDBBean</ejb-name> <activation-config> <activation-config-property> <activation-config-property-name>topicMessagesDistributionMode</activation-config-property-name> <activation-config-property-value>One-Copy-Per-Server</activation-config-property-value> </activation-config-property> <activation-config-property> <activation-config-property-name>distributedDestinationConnection</activation-config-property-name> <activation-config-property-value>EveryMember</activation-config-property-value> </activation-config-property> </activation-config> </message-driven>
```

Sample file attach for reference. Note ejb-jar.xml file already contain few configurations with respect to MultiEntityManagerWrapper, please do not remove the same.

- Since PMEJB.jar is getting reference in few additional jar and war present in OBPM deployment, Also, modify those files by adding ejb-jar.xml. Below is list of additional files from deployment and their respective folder where we need to copy ejb-jar.xml.

Please note, this ejb-jar.xml will be different than attached in point number 1. Use one attach given below for reference.

- a. PMGateway.jar\META-INF\
  - b. PMUpiReqPayDebit.jar\META-INF\
    - c. PMUpiReqPayCredit.jar\META-INF\
      - d. PMReST.war\WEB-INF\
        - e. PMWeb.war\WEB-INF\
          - f. PMFWAdapterWeb.war\WEB-INF\
            - g. PMPlatoReST.war\WEB-INF\
              - h. PMImpsWeb.war\WEB-INF\
  - After completing changes mentioned in point number 1 and 2, deploy new modified OBPM deployment (.ear) and restart the server.