WebLogic 12c Recommendations
Oracle Banking Payments
Release 14.6.0.0.0
January 2025

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FINANCIAL SERVICES

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1. Weblogic Configuration

1.1 <u>Background</u>

Oracle Financial Services Software Services Limited has developed the Oracle Banking Payments, a stand-alone Payments Product Processor, to cater to the requirements of both Retail & Corporate segments. The agile and scalable nature of the solution helps Banks in quickly adapting to market changes.

1.2 <u>Purpose</u>

WebLogic resources are created with default parameter values. This document identifies parameters that require changes from the default values.

It is intended for WebLogic Server Administrators responsible for managing and configuring domain resources such as managed servers, clusters, data sources, and JMS servers.

Note: These are the recommended values for most cases. During implementation, assess site-specific usage, monitor resource utilization, and adjust parameter values as needed.

1.3 <u>Release Highlights</u>

The scope of the Oracle Banking Payments 14.6.0.0.0 Release is to develop new features apart from making enrichments to the existing functionality.

2. Data Source Configuration

Oracle Banking Payments requires two types of data sources, as outlined in the setup guide. This section details the configuration parameters common to both data source types, followed by settings specific to each type.

Types of datasoruce:

1. Non-XA Datasource with JTA Support
2. Non-XA Datasource without JTA Support
3. XA Datasource

2.1 <u>Data Source Configuration – Common Setting</u>

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.

2.2 Data Source Configuration – Non-XA Datasource with JTA Support

These data sources, ending with **_GTXN**, are used in OLTP flows. The configuration enables the XA feature only when multiple resources are involved in a transaction, avoiding XA overhead for simple connections.

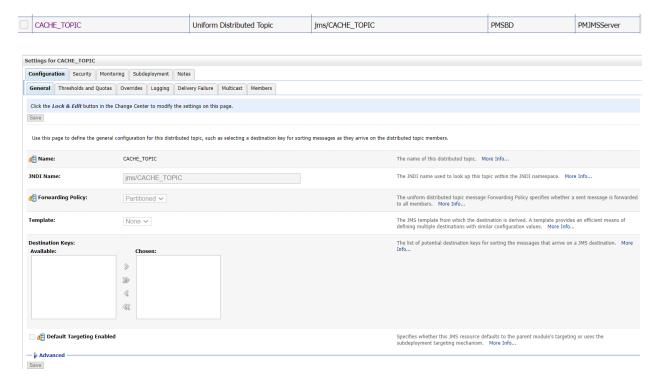| Section	Parameter Name	Value	Description
Transaction	Supports Global Transaction	Check	Connections from this pool will be managed by Weblogic Transaction Manager (JTA) when this is enabled.
Transaction	Logging Last Resource	Select	This is an efficient option to enabled XA behaviour on this connection 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.

2.3 Data Source Configuration – Common Setting

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. 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.

	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.

	CACHE_TOPIC	Uniform Distributed Topic	jms/CACHE_TOPIC	PMSBD	PMJMSServer

JMS Server should target to Cluster

	Name ⌃	Persistent Store	Target	Current Target	Health
☐	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.

PMEJB_ejb-jar.xml

- 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\

ejb-jar.xml

- After completing changes mentioned in point number 1 and 2, deploy new modified OBPM deployment (.ear) and restart the server.

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Oracle Financial Services Software Limited
Oracle Park
Off Western Express Highway
Goregaon (East)
Mumbai, Maharashtra 400 063
India

Worldwide Inquiries:
Phone: +91 22 6718 3000
Fax: +91 22 6718 3001
www.oracle.com/financialservices/