WebLogic 12c Recommendations
Oracle Banking Payments
Release 14.7.0.0.0
December 2024

ORACLE
FINANCIAL SERVICES

TABLE OF CONTENTS

1. Weblogic Configuration

1.1 Background

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 Purpose

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 Release Highlights

The scope of the Oracle Banking Payments 14.7.0.0.0 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 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.

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

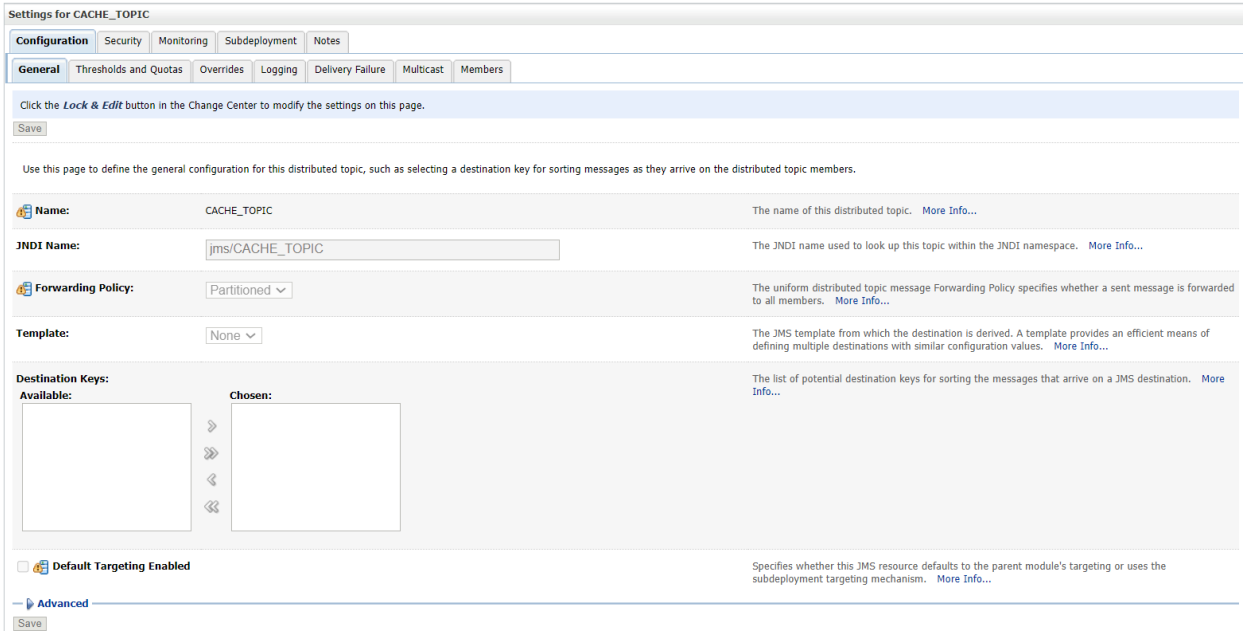
To use Cache Topic in a cluster setup, the following setup are required:

- 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



- 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.

WebLogic 12c Recommendations
December 2024
Version 14.7.0.0.0
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/