

Oracle® Banking Payments

Payments Installation Checklist



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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
boldface	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

Payments Installation Checklist

- [Checklist for Installation on WebLogic Server](#)

2.1 Checklist for Installation on WebLogic Server

Below are the list of steps to validate Server Configuration post successful installation of Oracle Banking Payments:

1. Check the WebLogic version, JDK version on the Application server and Oracle Client version. The versions should be as per the latest certified version specified in the Release document.
2. Below WebLogic, parameters should be checked as part of Oracle Banking Payments Installation for the WebLogic Domain created.
 - a. Under Domain--> Configuration Tab --> Web Applications
 - b. Options 'JSP Compiler Backwards Compatible' and 'Archived Real Path Enabled' should be checked
3. JMS Load Balancing Configuration
Configuration -> Services -> JMS Modules -> Connection Factories For each of the Distributed Queue Connection Factory, set the "Server Affinity" to false . This ensures that the messages get distributed uniformly across all the managed servers in a cluster.

Figure 2-1 Load Balance

The screenshot shows the 'Configuration View Tree' for 'MAsterQA'. The breadcrumb path is 'JMS Modules / PMJMSModule / Connection Factories / ACCINT_QCF'. The 'Load Balancing' tab is selected, showing three configuration items:

Parameter	Value
Load Balancing Enabled	true
Server Affinity Enabled	false
Producer Load Balancing Policy	Per-Member

4. Non Transactional Datasource Configuration
Datasource which do not have the "Supports Global Transactions" flag enabled are referred as Non-Transactional Datasource, as they do not come under the Container/ Server managed transactions.

Figure 2-2 Settings for jdbc/fcjddevDS

For such Datasources, the inactive connection timeout seconds must be configured to a positive value. This helps to avoid the Connection Leak scenario. The suggested value is 30 seconds.

Figure 2-3 Settings for jdbc/fcjddevDS

The screenshot shows the 'Data Sources' page for 'fcjddevDS'. The 'Advanced' tab is selected, displaying various configuration options for the connection pool. The 'Inactive Connection Timeout' is highlighted with a red box and set to 30. Other visible settings include 'Test Connections On Reserve' (disabled), 'Test Frequency' (120), 'Seconds To Trust An Idle Pool Connection' (10), 'Shrink Frequency' (900), 'Connection Creation Retry Frequency' (0), 'Init Sql' (empty), 'Login Delay' (0), 'Maximum Waiting for Connection' (2147483647), and 'Statement Timeout' (-1).

5. Transactional Datasources Configuration
Datasource for which the "Global Transactions Protocol" is enabled referred as Transactional Datasource, as they come under the Container/Server managed transactions.

Figure 2-4 Settings for jdbc-fcjddevDS_GTXN

The screenshot shows the 'Data Sources' page for 'fcjddevDS_GTXN'. The 'Transaction' tab is selected, displaying transaction-related configuration options. The 'Global Transactions Protocol' is highlighted with a red box and set to 'LoggingLastResource'. Other visible settings include 'XA JDBC Driver' (false), 'Use Xa Data Source Interface' (disabled), 'Set XA Transaction Timeout' (disabled), 'Xa Transaction Timeout' (0), 'XA Retry Duration' (0), 'XA Retry Interval' (60), 'Keep XA Connection Until Transaction Complete' (disabled), 'Keep Connection After Global Transaction' (disabled), and 'Need Transaction Context On Close' (disabled).

For such data sources ensure that “Logging Last Resource” option is selected.

Figure 2-5 Settings for jdbc-fcjdevDS_GTXN

The screenshot shows the 'Data Sources' configuration page for 'fcjdevDS_GTXN'. The 'Connection Pool' tab is selected, and the 'Advanced' sub-tab is active. The page contains several configuration fields:

- Test Connections On Reserve:** A toggle switch is turned off.
- Test Frequency:** A text input field containing the value '120'.
- Test Table Name:** An empty text input field.
- Seconds To Trust An Idle Pool Connection:** A text input field containing the value '10'.
- Shrink Frequency:** A text input field containing the value '900'.
- Init Sql:** A text input field with a warning icon (exclamation mark in a circle) to its left.
- Connection Creation Retry Frequency:** A text input field containing the value '0'.
- Login Delay:** A text input field with a warning icon to its left, containing the value '0'.
- Inactive Connection Timeout:** A text input field containing the value '0'.
- Maximum Waiting for Connection:** A text input field containing the value '2147483647'.
- Connection Reserve Timeout:** A text input field containing the value '10'.
- Statement Timeout:** A text input field with a warning icon to its left, containing the value '-1'.

Set “Inactive Connection Timeout” seconds to 0. For the transactional Datasources as they participate in the container transaction, the timeout is governed by the JTA timeout seconds.

6. Data Source Setup Verification

- a. Navigate to the Data Sources Configuration
- b. Below Data Sources must be mapped in the Data Sources Configuration
 - i. Jdbc/fcjdevDS
 - ii. Jdbc/fcjdevDS_GTXN
 - iii. Jdbc/fcjdevDS_XA
- c. Additional Data Sources for Co-deployed
 - i. jdbc/fcjdevDS_ASYNC

Figure 2-6 Configuration

Data Sources ▼

New Customize Table ▼

A JDBC data source is an object bound to the JNDI tree that provides database connectivity through a pool of JDBC connections. Applications can look JNDI tree and then borrow a database connection from a data source.

This page summarizes the JDBC data source objects that have been created in this domain.

Delete

	Name ^	Data Source Type ^	JNDI Names ^	Targets ^
<input type="checkbox"/>	PLATO	Generic Data Source	jdbc/PLATO	Cluster1, Cluster2, Cluster3, Cluster4, Scheduler
<input type="checkbox"/>	fcjdevDS	Generic Data Source	jdbc/fcjdevDS	Cluster1, Cluster2, Cluster3, Cluster4, Scheduler
<input type="checkbox"/>	fcjdevDS_GTXN	Generic Data Source	jdbc/fcjdevDS_GTXN	Cluster1, Cluster2, Cluster3, Cluster4
<input type="checkbox"/>	fcjdevDS_XA	Generic Data Source	jdbc/fcjdevDS_XA	Cluster1, Cluster2, Cluster3, Cluster4, Scheduler
<input type="checkbox"/>	fcjdevHADS_GTXN	Generic Data Source	jdbc/fcjdevHADS_GTXN	Cluster1, Cluster2, Cluster3, Cluster4

- d. Below listed Data Sources must be configured as NXA (Please refer to the below screen-shot for Jdbc/fcjdevDS_GTXN)
 - i. Jdbc/fcjdevDS
 - ii. Jdbc/fcjdevDS_GTXN
 - iii. Jdbc/fcjdevDS_ASYNC
- e. Below listed Data Sources must be configured as XA
 - i. Jdbc/fcjdevDS_XA

Figure 2-7 Connection Pool

Data Sources / fcjdevDS_GTXN ▼

Save

The connection pool within a JDBC data source contains a group of JDBC connections that applications reserve, use, and then return to the pool. The connection pool and the connections within it are created when the connection pool is registered, usually when starting up WebLogic Server or when deploying the data source to a new target.

Use this page to define the configuration for this data source's connection pool.

General **Connection Pool** Oracle Transaction Diagnostics Identity Options Targets Referenced By

General Advanced

① Url jdbc:oracle:thin:@100.76.155

① Driver Class Name oracle.jdbc.OracleDriver

① Password

① Statement Cache Type LRU ▼

① Statement Cache Size 10

- f. Below options must be enabled for the GTXN Data Source - Jdbc/fcjdevDS_GTXN

- i. Supports Global transactions
- ii. Logging Last Resource

During creation of this datasource a table will be created in the connected database with the table name as WL_LLRL|'managed_server_name'

Here the managed server will be the name of the target server associated with the datasource.

For JDBC LLR 2PC transactions, if the transaction data is too large to fit in the LLR table, the transaction will fail with a rollback exception during commit. This can occur if your application adds many transaction properties during transaction processing. In this case, the database administrator can drop the existing table and create a new LLR table with the same name or alter the column with larger recSize value for RECORDSTR data column. The RECORDSTR data column must be the DBMS's variable string column type with the DBMS's maximum size. In this way, the DBMS allocates as much space as the data needs for a given row.

Figure 2-8 Transaction

7. Target Server for Datasources created
 - a. If Payments WAR is deployed with embedded Scheduler, all datasources should point to the single Managed Server, where the application is deployed.
 - b. If Payments WAR and Scheduler WAR are deployed on two different servers.
 - i. Below datasources should be targeted to Managed Server where application is deployed.
jdbc/fcjdevDS
jdbc/fcjdevDS_GTXN
jdbc/fcjdevDS_XA
 - ii. Below datasources should be targeted to Managed Server where Scheduler is deployed.
jdbc/fcjdevDS
jdbc/fcjdevDS_XA
8. Verifying data in SMTB_MODULES_GROUP Table
 - a. JNDI Names Input during Installation process must be verified with records in the SMTB_MODULES_GROUP table.

- b. JNDI name provided here should be created on console.

Figure 2-9 Below is the screen-shot of Data Input during installation

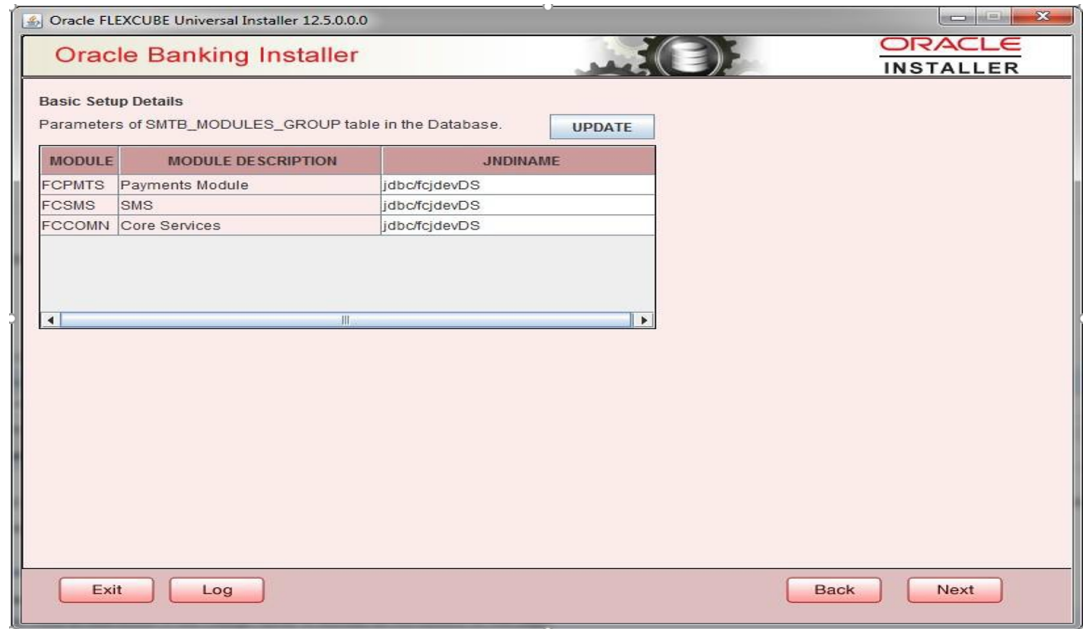


Figure 2-10 Below is the screen-shot of records in the SMTB_MODULES_GROUP table

	MODULE_GROUP_ID	MODULE_GROUP_DESC	JNDI NAME	RELEASE
1	FCCOMN	Core Services	jdbc/fcjdevDS	14.8.0.0.0
2	FCSMS	SMS	jdbc/fcjdevDS	14.8.0.0.0
3	FCPMIS	Payments Module	jdbc/fcjdevDS	14.8.0.0.0

9. All queues mentioned in the Resource List should be mandatorily created. For all queues where Error queue needs to be defined, the below setting should be done.
 - a. 'Expiration Policy' should be maintained as 'Redirect' and 'Error Destination' as the error Queue. Keep Redelivery Limit as zero.
10. In case of standalone and co-deployed setup for Payments, the below external queues should have the setup as mentioned:
 - jms/SNCK_RES_IN
 - jms/SNCK_RES_BKP_IN
 - jms/FP_SNCK_RES_IN
 - jms/FP_SNCK_RES_BKP_IN
 - jms/EXT_PRICE_RES_IN
 - jms/EXT_PRICE_RES_BKP_IN
 - jms/EXTACSYS_REQ_IN
 - jms/ECA_RES_BKP_IN
 - jms/FP_ECA_RES_BKP_IN
 - jms/ECA_RES_IN

jms/ACC_ENTRY_RES_BKP_IN
jms/ECR_RES_IN
jms/ECR_RES_BKP_IN
jms/EXTRATESYS_REQ_BKP_IN
jms/EXTRATESYS_REQ_IN

- a. Options Expiry Policy should be maintained as Redirect and error destination as Error queue in Delivery Failure. Keep Redelivery Limit as zero.
 - b. In Tab Overrides, value for 'Time-to-Live Override' should be maintained as 2000.
 - c. In case of co-deployed setup, for external queue MDB_QUEUE_RESPONSE, check if Options Expiry Policy is maintained as Redirect and error destination as jms/ACC_ENTRY_RES_BKP_IN in Delivery Failure. Redelivery Limit should be 0.
11. Check if following Gateway ears are deployed on the Application Server for co-deployed setup.
 - a. GW EJB
 - b. GW MDB
12. SYSTEM user should be present and debug should be enabled in case debugs needs to be generated for checking the response error from FCUBS.
13. User role should be granted to SYSTEM user for the branch from where transaction is posted to MDB.
14. Check the maintenance for tables
 - PMTM_JOB_PARAM
 - a. For Parameter PM.CTX.PROVIDER property maintain the below value "t3://Weblogic_IP:Server_Port" or t3://Host Name:Server_Port Here Host Name is the name of the Application Server or IP of the Application Server.

Server_Port is the listen port configured on the application Managed Server where application is deployed.
 - b. For parameter PM.CTX.FACTORY value should be weblogic.jndi.WLInitialContextFactory.
 - PMTM_SYSTEM_PARAMETERS
 - a. For PARAM_NAME "PM.CTX.FACTORY", update the PARAM_VALUE as 'weblogic.jndi.WLInitialContextFactory'.
 - b. For PARAM_NAME "PM_CTX_PROVIDER", update the PARAM_VALUE for Non-Cluster setup as "t3://Weblogic_IP:Server_Port" or "t3://HostName:Server_Port" and for Cluster setup as "t3://HOST NAME1: PORT 1, HOST NAME2:PORT 2"
 - i. Here Host Name is the name of the Application Server or IP of the Application Server.
 - ii. Server_Port is the listen port configured on the application Managed Server where application is deployed.
 - c. For PARAM_NAME "PM.CTX.CONNFACTORY" the appropriate connection factory needs to be provided which is created in JMS Server for e.gjms/PMQCF.
 - d. For PARAM_NAME "C2B_FILE_PATH", give the C2B path maintained in the Application server.
 - e. For PARAM_NAME "DD_FILE_PATH" property, give the DD path maintained in the Application server.

- f. For PARAM_NAME “DEBUG_PATH” property, give the PM DEBUG path maintained in the Application server.
 - g. For PARAM_NAME “DISPATCH_PATH” property, give the DISPATCH path maintained in the Application server.
- CSTB_PARAM
 - a. Check if the below parameters PM.CTX.FACTORY, PM_CTX_PROVIDERand PM.CTX.CONNFACTORY exist in CSTB_PARAM. In case parameters exists, it should have the same value as in PMTM_SYSTEM_PARAMETERS. The parameters need not be maintained in case it's already maintained in PMTM_SYSTEM_PARAMETERS.
- CSTM_EXTERNAL_SERVER_DETAILS
 - a. For field “CONTEXT_PROV_URL”, update the values for Non-Cluster setup as “t3://Weblogic_IP:Server_Port” or “t3://HostName:Server_Port” and for Cluster setup as “t3://HOST NAME1: PORT 1, HOST NAME2:PORT2” in web-logic application server.
 - b. Value for QUEUE_FCTRY_JNDI should be ‘jms/PMQCF’
 - c. Value for CACHE_QUEUE_JNDI should be ‘jms/CACHE_TOPIC’
15. Ensure the topic CACHE_TOPIC is created and present in the weblogic JMS Server. In case of cluster and non-cluster setup, the ‘Forwarding policy’ of the distributed Topic should be “Replicated” for the uniform Distributed Topic, otherwise the Caching would not work properly.
16. If External JSUIXML path is checked as required during property creation, all UIXML and JS files(plus copy of old Rolled-up JSUIXML) should be copied to the external path after WAR creation.
17. All EMS folders should be created on the Application server with full rights.
18. Check if the value for below EMS properties are correctly defined in fcubs.properties.
EMS_INIT_CTX_FACT=weblogic.jndi.WLInitialContextFactory
 - a. Non Cluster Setup
EMS_PRVDR_URL= t3://Weblogic_IP:Server_Port
t3://Weblogic_IP:Server_Port” or “t3://Host Name:Server_Port”
 - i. Here Host Name is the name of the Application Server or IP of the Application Server.
 - ii. Server_Port is the listen port configured on the application Managed Server where application is deployed.
 - b. Cluster Setup
In case of external load balancer, it should be the Host Name or IP and port of the Load balancer.

EMS_PRVDR_URL= t3://Weblogic_IP:Server_Port

In case of internal load balancer, specify the Host name and IP as below of all managed servers used in the Cluster

EMS_PRVDR_URL= t3://HOST NAME1: PORT 1, HOST NAME2:PORT 2
19. Debug paths should be created on the Application server with full rights. Data Store table CSTB_DEBUG_USERS should be populated with value Y if debug is to be generated for a logged in user.
20. Below maintenance should be done for both Co-deployed and Standalone. Details can be checked in FCUBS-Oracle Banking Payments Integration document.

- a. Sanctions System Maintenance (PMDSNCKM)
- b. ECA System Maintenance (PMDECAMT)
- c. Accounting System Maintenance (PMDACCMT)
- d. Queue Connection Profile Maintenance (PMDQPROF)