Payments Installation Checklist Oracle Banking Payments Release 14.7.4.0.0 Part No. G10007-01 [June 2024]

FINANCIAL SERVICES





Oracle Banking Payments WebLogic Server Configuration Checklist June 2024 Version 14.7.4.0.0

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## 1. Preface

## 1.1 Introduction

This document briefs the list of checklists to validate Payments Installation, to make it compatible to Oracle Banking Payments 14.3.

### 1.2 Audience

This document is intended for the following audience:

• 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. Payments Installation Checklist

### 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. Missing Server Id setup at server start-up for single server or cluster installations.

Identify the Managed Server in which the Application EAR is deployed

- a. Login to the WebLogic Console
- b. Navigate to Environment --> Servers
- c. From the List of Servers, locate and click on the Managed Server in which the Application EAR is deployed

|  | Administration Console 1   | 2c   |                                    |                                  |                     |                   |   |                |  |  |  |  |  |  |
|--|--|--|------------------------------------|----------------------------------|---------------------|-------------------|---|----------------|--|--|--|--|--|--|
| hange Center   | Home Log Out   | Preferences 🐼 Record Help  | Q                                  |                                  |                     |                   |   | Welcome, pmin  |  |  |  |  |  |  |
| liew changes and restarts  | Home >Summary of   | f Deployments >Summary of Servers >Sum   | mary of JDBC Data Sources >jdbc/   | fcjdevDS >Summary of Deployments | >Summary of Servers |                   |   |                |  |  |  |  |  |  |
| lick the Lock & Edit button to modify, add or elete items in this domain.  |  | Summary of Servers   |                                    |                                  |                     |                   |   |                |  |  |  |  |  |  |
| Lock & Edit  | Configuration  | Control  |                                    |                                  |                     |                   |   |                |  |  |  |  |  |  |
| M142<br>P-Domain Partitions<br>P-Environment   | Č2   |  |                                    |                                  |                     |                   |   |                |  |  |  |  |  |  |
| Servers     Custers     Coherence Clusters     Resource Groups     Resource Group Templates     Machines   | Click the Lock &   | ed - More Columns Exist)<br>& <i>Edit</i> button in the Change Center to a   | ctivate all the Luttons on this pe | ige.                             |                     |                   |   |                |  |  |  |  |  |  |
| Servers     Clusters     Coherence Clusters     Cesource Groups     Resource Group Templates     Machines     Virtual Hosts  | Servers (Filtere<br>Click the Lock &                                     | ed - More Columns Exist)   | ctivate all the Luttons on this pa | ige.                             | Ī                   | 1                 |   | Showing 1 to 3 |  |  |  |  |  |  |
| Servers     Coherence Clusters     Coherence Clusters     Resource Groups     Resource Group Templates     Writual Hoots     Virtual Targets     Work Managers   | Servers (Filtere<br>Click the Lock &                                     | ed - More Columns Exist)<br>& Edit button in the Change Center to a<br>Delete Click the Managed  | ctivate all the Luttons on this pa | cluster                          | Machine             | State             | Health  | Showing 1 to 3 |  |  |  |  |  |  |
| Converse     Converse | Servers (Filtere<br>Click the Lock &<br>New Clone                        | ed - More Columns Exist)<br>& Edit butt in in the Change Center to a<br>Delete Click the Managed<br>Server for Server<br>Configuration |                                    |                                  | Machine             | State<br>RUINIING | Health<br>\$ OK   |                |  |  |  |  |  |  |
| Converse     Converse     Converse     Converse     Converse     Converse     Converse     Macource Groups     Macource Groups     Macource Groups     Macourse     Virtual Targets     Micro Arrangers     Micro Arrangers     Micro Arrangers  | Servers (Filtere<br>Click the Lock &<br>New Clone<br>Name &<br>Admin142( | ed - More Columns Exist)<br>& Edit butt in in the Change Center to a<br>Delete Click the Managed<br>Server for Server<br>Configuration | Туре                               |                                  | Machine<br>Machine1 |                   | and the second se | Listen Port    |  |  |  |  |  |  |

Verifying Arguments for Reference Number Generation

- a. After clicking the Managed Server, navigate to 'Server Start' tab under the 'Configuration Tab'
- b. Verify the Arguments as shown below

-Dserver.id=1



In case of cluster setup, each managed server, which is part of the cluster where the application is deployed, should have a different server id.
 For eg for Managed server, "Server1" the value should be given as

#### -Dserver.id=1

For Managed server Server2, the value should be given as

#### -Dserver.id=2

Different values can be given for managed server upto 99.

#### Note

Parameter '-Dserver.id=1' is required for the Reference Number Generation in Oracle Banking Payments Transaction screens. If not set, Oracle Banking Payments Transaction screens on launch will report Error on click of NEW

| < → ♂ @  | 10.184.1                | 54.144:801        | 0/console/cons        | ole.portal?_n      | fpb=tru      | e&_pageLabe      | el=ServerC    | onfigSen      | /erstartTa  | bPage8tham        | P                   | 00                  | Search            |   |                  |                   | 白            | htv.        |           |
|--|-------------------------|-------------------|-----------------------|--------------------|--------------|------------------|---------------|---------------|-------------|-------------------|---------------------|---------------------|-------------------|---|------------------|-------------------|--------------|-------------|-----------|
| BugDB 🛅 Oracle Link 🛅 SWIFT  | Learn 🛅 JIRA 🗄          | Oracle Link       | BOBPM Link            |                    | MISC         |                  |               |               |             |                   |                     |                     |                   |   |                  |                   |              |             |           |
| ORACLE WebLogic Serve  | Administration Cons     | ole 12c           |                       |                    |              |                  |               |               |             |                   |                     |                     |                   |   |                  |                   |              |             | C         |
| Change Center  | Home Log O              | ut Preference     | s 🔝 Record Help       |                    | 14           | a                |               |               |             |                   |                     |                     |                   |   |                  | Welcome, w        | eblogic Co   | onnected    | to: WEURO |
| View changes and restarts  | Home >Summary           | of Servers >Si    | ummary of Deploym     | ints >Summary o    | of Servers > | FleecubeServer 2 | Summary of    | Servers > Fle | excubeServ  |                   |                     |                     |                   |   |                  |                   |              |             |           |
| Configuration editing is enabled. Future   | Settings for Fle        | cubeServer        |                       |                    |              |                  |               |               |             |                   |                     |                     |                   |   |                  |                   |              |             |           |
| changes will automatically be activated as you<br>modify, add or delete items in this domain.    | Configuration           | Protocols         | Logging Debug         | Monitoring         | Control      | Deployments      | Services      | Security      | Notes       |                   |                     | _                   | >                 |   |                  |                   |              |             |           |
| Domain Structure   | General Clus            | ter Services      | Keystores S           | SL Federatio       | n Services   | Deployment       | Migration     | Tuning        | Overload    | Concurrency       | Health Monitoring   | Server Star         | Web Services      | Coherence                                   |                  |                   |              |             |           |
| WEUROPE  | Save                    |                   |                       |                    |              |                  |               |               |             |                   |                     | <u> </u>            |                   |   |                  |                   |              |             |           |
| Domain Partitions     Environment     Servers     Dusters  | Node Manager            | is a WebLogic :   | Server utility that y | ou can use to s    | tart, suspe  | nd, shut down, a | and restart s | ervers in no  | rmal or une | opected condition | s. Use this page to | configure the star  | tup settings that | Node Manager will                           | luse to start th | is server on a re | note machin  | ie.         |           |
| Coherence Clusters<br>Resource Groups<br>Resource Group Templates<br>Machines                    | Java Home:              |                   |                       |                    |              |                  |               |               |             |                   |                     | The Java ho<br>Info | ne directory (pat | h on the machine n                          | running Node M   | lanager) to use w | hen starting | g this serv | ver. More |
| Virtual Hosts<br>Virtual Targets   | Java Vendor:            |                   |                       |                    |              |                  |               |               |             |                   |                     | The Java Ve         | ndor value to use | when starting this                          | s server. Mon    | e Info            |              |             |           |
| Work Managers<br>Concurrent Templates<br>Resource Management                                     | BEA Home:               |                   |                       |                    |              |                  |               |               |             |                   |                     | The BEA hor<br>Info | e directory (path | on the machine ru                           | unning Node M    | anager) to use wi | en starting  | this serv   | er, More  |
| How do L<br>• Configure startup arguments for Managed<br>Servers                                 | Root Director           | n                 |                       |                    |              |                  |               |               |             |                   |                     |                     |                   | uses as its root dir<br>specify a Root Dire |                  |                   |              |             |           |
| Start Managed Servers from the<br>Administration Console     Shut down a server instance         | Class Path:             |                   |                       |                    |              |                  |               |               |             |                   |                     | The classpat        | h (path on the m  | achine running Nod                          | de Manager) to   | use when startin  | g this serve | r. More     | Info      |
|  | -                       |                   |                       |                    |              |                  |               |               |             |                   |                     |                     |                   |   |                  |                   |              |             |           |
| System Status  |                         |                   |                       |                    |              |                  |               |               |             |                   |                     |                     |                   |   |                  |                   |              |             |           |
| Health of Running Servers as of 11:46 AM   |                         |                   |                       |                    |              |                  |               |               |             |                   |                     |                     |                   |   |                  |                   |              |             |           |
| Faled (0)           Critical (0)           Overloaded (0)           Warning (0)           OK (4) | Arguments:<br>-Daerver. | id=1 - <u>Dwe</u> | blogic.secu           | ity. <u>SSL</u> .n | 01ce=t)      | rue              |               |               |             |                   |                     | The argume          | its to use when s | tarting this server.                        | . More Info      |                   |              |             |           |

5. JMS Load Balancing Configuration

For each of the Distributed Queue Connection Factory, disable the "Server Affinity" flag. This ensures that the messages get distributed uniformly across all the managed servers in a cluster.



| Change Center   | 🟦 Home Log Out Preferences 📐 Record Help                       | Q  | Welcome, weblogic Connected to: j  |
|---|--|--|--|
| View changes and restarts   | Home >Summary of JMS Modules >PMJMSModule >ACCINT_<br>Messages | QCF  |  |
| Click the Lock & Edit button to modify, add or delete items in this domain. | ✓ All changes have been activated. No restarts are nece        | essary.  |  |
| Lock & Edit   | Settings for ACCINT_QCF  |  |  |
| Release Configuration   | Configuration Subdeployment Notes                              |  |  |
| Domain Structure  | General Default Delivery Client Transactions F                 | Flow Control Load Balance Security                   |  |
| jms   | Click the Lock & Edit button in the Change Center to me        | odify the settings on this page.                     |  |
| E-Services  | Save   |  |  |
|   | Use this page to define the load balancing configuration       | parameters for this JMS connection factory, which in | cludes enabling load balancing and server affinity.  |
| Patri services<br>⊞-Bridges<br>Data Sources                                 | Load Balancing Enabled   |  | Specifies whether non-anonymous producers created through a connection<br>factory are load balanced within a distributed destination on a per-call<br>basis. More Info   |
| Persistent Stores     Foreign JNDI Providers     Work Contexts              | Server Affinity Enabled  |  | Specifies whether a server instance that is load balancing consumers or<br>producers across multiple members destinations of a distributed<br>destination, will first attempt to load balance across any other physical<br>destinations that are also running on the same server instance. More Info |
|   |  |  | 5  |
| Configure connection factories  | Producer Load Balancing Policy:                                | Per-Member 🗸   | The Producer Load Balancing Policy restricts where a JMS Message<br>Producer can load balance its messages among members of a distributed<br>destination (DD). More Info   |
| System Status   | Save   |  |  |
| Health of Running Servers as of 10:47 AM                                    |  |  |  |

6. 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.

| Settings for jdbc           | /fcjdevDS   |               |             |              |                  |                  |  |   |  |  |  |  |
|-----------------------------|---|---------------|-------------|--------------|------------------|------------------|--|---|--|--|--|--|
| Configuration               | Targets   | Monitoring    | Control     | Security     | Notes            |                  |  |   |  |  |  |  |
| General Conn                | ection Pool   | Oracle        | ONS Tr      | ansaction    | Diagnostics      | Identity Options |  |   |  |  |  |  |
| Click the <i>Lock &amp;</i> | & <i>Edit</i> butto   | on in the Cha | ange Center | to modify th | ne settings on t | his page.        |  |   |  |  |  |  |
| Save                        |   |               |             |              |                  |                  |  |   |  |  |  |  |
| global (XA) or r            | The transaction protocol for a JDBC data source determines how connections from the data source are handled during transaction proc<br>global (XA) or non-global (local).<br>This page enables you to define transaction options for this JDBC data source. |               |             |              |                  |                  |  |   |  |  |  |  |
| Supports G                  | lobal Trans   | sactions      |             |              |                  |                  |  | Select this optior<br>participate in glo                    |  |  |  |  |
| O Logging Las               | st Resourc  | e             |             |              |                  |                  |  | Enables a non-X/<br>using the Loggin<br>Recommended ir      |  |  |  |  |
| O Emulate Tw                | /o-Phase C  | Commit        |             |              |                  |                  |  | Enables a non-X/<br>transactions usin<br>tolerate heuristic |  |  |  |  |
| One-Phase                   | Commit  |               |             |              |                  |                  |  | Enables a non-X/<br>using the one-pr<br>other resources (   |  |  |  |  |

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.

| Setting     | s for jdbo   | /fcjdevDS                |             |         |             |             |                  |  |  |  |  |  |  |
|-------------|--|--------------------------|-------------|---------|-------------|-------------|------------------|--|--|--|--|--|--|
| Config      | juration   | Targets                  | Monitoring  | Control | Security    | Notes       |                  |  |  |  |  |  |  |
| Gener       | al <b>Con</b>  | nection Po               | ol Oracle   | ONS     | Transaction | Diagnostics | Identity Options |  |  |  |  |  |  |
| Save<br>The | Click the Lock & Edit button in the Change Center to modify the settings on this page. |                          |             |         |             |             |                  |  |  |  |  |  |  |
| Uset        | L  | dvanced —<br>st Connecti | ions On Res | erve    |             |             |                  | Enables WebLogic Server to test a connection before giving it to a client<br>(Requires that you specify a Test Table Name.) More Info  |  |  |  |  |  |
|             | Test Fi  | requency:                |             |         | 120         | )           |                  | The number of seconds a WebLogic Server instance waits between<br>attempts when testing unused connections. (Requires that you specify a<br>Test Table Name). Connections that fail the test are closed and reopene<br>re-establish a valid physical connection. If the test fails again, the<br>multiple connection requests in rapid successio |  |  |  |  |  |
| Inac        | tive Conr  | ection Tim               | eout:       |         | 30          |             |                  | The number of inactive seconds on a reserved<br>Server reclaims the connection and releases it I<br>pool. More Info  |  |  |  |  |  |
|             |  |                          |             |         |             |             |                  |  |  |  |  |  |  |

### 7. Transactional Datasources Configuration

Datasource for which the "Supports Global Transactions" flag is enabled referred as Transactional Datasource, as they come under the Container/Server managed transactions.

| tings for jdb         | /fcjdevDS_   | _GTXN         |              |                |                 |                  |   |
|-----------------------|--------------|---------------|--------------|----------------|-----------------|------------------|---|
| onfiguration          | Targets      | Monitoring    | Control      | Security       | Notes           |                  |   |
| General Con           | nection Pool | Oracle        | ONS Tr       | ansaction      | Diagnostics     | Identity Options |   |
| Click the <i>Lock</i> | & Edit butto | n in the Char | nge Center   | to modify th   | e settings on l | his page.        |   |
| ave                   |              |               |              |                |                 |                  |   |
| This page enab        |              |               | tion option: | s for this JDE | 3C data source  |                  | Select this option to enable non-XA connections from the data source to participate in global transactions. More Info   |
| Logging La            | st Resource  |               |              |                |                 |                  | Enables a non-XA JDBC connection to participate in distributed transactions<br>using the Logging Last Resource (LLR) transaction optimization.<br>Recommended in place of Emulate Two-Phase Commit. More Info |
| ) Emulate Tv          | vo-Phase C   | ommit         |              |                |                 |                  | Enables a non-XA JDBC connection to emulate participation in distributed<br>transactions using JTA. Select this option only if your application can<br>tolerate heuristic conditions. <b>More Info</b>        |
| 0 Ph                  | C            |               |              |                |                 |                  | Enables a non-VA IDRC connection to participate in distributed transactions   |

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



| Settings fo    | ettings for jdbc/fcjdevDS_GTXN   |                           |                     |           |             |             |                  |  |  |  |  |  |  |
|----------------|--|---------------------------|---------------------|-----------|-------------|-------------|------------------|--|--|--|--|--|--|
| Configura      | ation  | Targets                   | Monitoring          | Control   | Security    | Notes       |                  |  |  |  |  |  |  |
| General        | Conn   | ection Po                 | ol Oracle           | ONS       | Transaction | Diagnostics | Identity Options |  |  |  |  |  |  |
| Click the Save | Click the Lock & Edit button in the Change Center to modify the settings on this page. 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 c 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. |                           |                     |           |             |             |                  |  |  |  |  |  |  |
|                |  | <b>⊽ Advan</b><br>Test Co | ced<br>nnections Or | n Reserve | ł           |             |                  |  |  |  |  |  |  |
| Inactiv        | ve Con   | nection T                 | ïmeout:             |           | 0           |             |                  |  |  |  |  |  |  |

"Inactive Connection Timeout" seconds must be set to 0. For the transactional Datasources as they participate in the container transaction, the timeout is governed by the JTA timeout seconds.

- 8. Data Source Setup Verification
  - d. Navigate to the Data Sources Configuration.
  - e. Below Data Sources must be mapped in the Data Sources Configuration.
    - i. Jdbc/fcjdevDS
    - ii. Jdbc/fcjdevDS\_GTXN
    - iii. Jdbc/fcjdevDS\_XA
  - f. Additional Data Sources for Co-deployed
    - i. jdbc/fcjdevDS\_ASYNC



| hange Center  | Home Log Out Preferences 🖉 Rec           | ord Help                      | Q  |   |                                   | Welcome, pminfra Co     |  |  |  |  |  |  |
|---|--|-------------------------------|--|---|-----------------------------------|-------------------------|--|--|--|--|--|--|
| iew changes and restarts  | Home >Summary of JDBC Data Sources       |                               |  |   |                                   |                         |  |  |  |  |  |  |
| ick the Lock & Edit button to modify, add or  | Summary of 100C Data Sources             |                               |  |   |                                   |                         |  |  |  |  |  |  |
| elete items in this domain.   | Configuration Venturing                  |                               |  |   |                                   |                         |  |  |  |  |  |  |
| Lock & Edit   |  |                               |  |   |                                   |                         |  |  |  |  |  |  |
| Release Configuration   | A IDBC data source is an object bound t  | o the JNDI tree that provides | database connectivity through a pool of IC | DBC connections. Applications can look up a data source on the JNDI tree  | and then borrow a database connec | ion from a data source. |  |  |  |  |  |  |
| main Structure  | This page summarizes the IDBC data so    | urce objects that have been ( | reated in this domain.                     |   |                                   |                         |  |  |  |  |  |  |
| 143   |  |                               |  |   |                                   |                         |  |  |  |  |  |  |
| Domain Partitions<br>Environment  | Customize this table                     |                               |  |   |                                   |                         |  |  |  |  |  |  |
| Deployments   | Data Sources (Filtered - More Colum      | ne Fviet)                     |  |   |                                   |                         |  |  |  |  |  |  |
| -Services<br>-Security Realms   | Click the Lock & Edit button in the Char | 0.000                         | huttree on this again                      |   |                                   |                         |  |  |  |  |  |  |
| Interoperability  |  | ye cana to activate al sie    | outrie on the page.                        |   |                                   |                         |  |  |  |  |  |  |
| Diagnostics   | New-                                     |                               |  |   |                                   | Showing 1 to 4 of 4     |  |  |  |  |  |  |
|   | 🗌 Name 🏟                                 | Туре                          | JNDI Name                                  | Targets   | Scope                             | Domain Partitions       |  |  |  |  |  |  |
|   | jdbc/ficjdevOS                           | Generic                       | jdbc/ficjdevDS                             | ServerA1, ServerIMPS, ServerSchd  | Global                            |                         |  |  |  |  |  |  |
|   | L PERSON CONTRACTOR                      | Generic                       | jdbc/fcjdevDS_GTXN                         | ServerA1, ServerIMPS  | Global                            |                         |  |  |  |  |  |  |
|   | jdbc/fcjdevO5_GTXN                       |                               |  | the second | 52020                             |                         |  |  |  |  |  |  |
|   | jdbqfrcjdevOS_GTXN                       | Generic                       | jdbc/fcjdevOS_XA                           | ServerA1, ServerSchd  | Global                            |                         |  |  |  |  |  |  |
| w do I 🗄  |  | Generic<br>Generic            | jdbc/fcjdevDS_XA<br>jdbc/fcjSchedulerDS    | ServerA1, ServerSchd<br>ServerA1, ServerSchd  | Global<br>Global                  |                         |  |  |  |  |  |  |
| Create JDBC generic data sources  | jdbqlftjdev05_XA                         | 20 - 10 -                     |  |   |                                   | Showing 1 to 4 of 4     |  |  |  |  |  |  |
| Create JDBC generic data sources<br>Create JDBC GridLink data sources   | jdbc/fcjdevO5_XA                         | 20 - 10 -                     |  |   |                                   | Showing 1 to 4 of 4     |  |  |  |  |  |  |
| Create JDBC generic data sources<br>Create JDBC GridLink data sources<br>Create JDBC multi data sources   | jdbc/fcjdevO5_XA                         | 20 - 10 -                     |  |   |                                   | Showing 1 to 4 of 4     |  |  |  |  |  |  |
| Create JDBC generic data sources<br>Create JDBC GridLink data sources   | jdbc/fcjdevO5_XA                         | 20 - 10 -                     |  |   |                                   | Showing 1 to 4 of 4     |  |  |  |  |  |  |
| Create 108C generic data sources<br>Create 108C GirdLink data sources<br>Create 108C multi data sources<br>Create 108C multi data sources<br>Create 1007 data sources | jdbc/fcjdevO5_XA                         | 20 - 10 -                     |  |   |                                   | Stowing 1 to 4 of 4     |  |  |  |  |  |  |
| Deate 108C generic data sources<br>Deate 108C Gridunk data sources<br>Deate 108C multi data sources<br>Deate UCP data sources   | jdbc/fcjdevO5_XA                         | 20 - 10 -                     |  |   |                                   | Stowing 1 to 4 of 4     |  |  |  |  |  |  |

- g. Below listed Data Sources must be configured as NXA (Please refer to the below screenshot for Jdbc/fcjdevDS\_GTXN)
  - i. Jdbc/fcjdevDS
  - ii. Jdbc/fcjdevDS\_GTXN
  - iii. jdbc/fcjdevDS\_ASYNC
- h. Below listed Data Sources must be configured as XA
  - i. Jdbc/fcjdevDS\_XA



| Change Center  | Home Log            | Out Preference  | tes 🔛 Rec     | ord Help    |                |                 | ٩  | Welcome, pmint   |
|--|---------------------|---|---------------|-------------|----------------|-----------------|--|--|
| View changes and restarts  | Home >Summa         | ary of Servers >9                                     | iummary of X  | OBC Data So | urces >jdbc/fr | cjdevDS_GTXN    | >Summary of JDBC Data Sources >jdbc/fcjdevOS >Summ | ary of JDBC Data Sources >jdbc/fejdevDS_GTXN   |
| Click the Lock & Edit button to modify, add or delete items in this domain.  | Settings for jd     |   |               |             |                |                 |  |  |
| Lock & Edit  | Configuratio        | n Targets   | Monitoring    | Control     | Security       | Notes           |  |  |
| Release Configuration  | General Co          | onnection Poo   | l Oracle      | ONS 1       | Transaction    | Diagnostics     | Identity Options                                   |  |
| Domain Structure   | Click the Loc       | k & Edit buttor                                       | n in the Char | nge Center  | to modify the  | e settings on t | his page.  |  |
| PM143  | Save                |   |               |             |                |                 |  |  |
| Ponnain Partitions     Environment     Deployments     Services     Services     Insecurity Realms     Transporability     Depnositios | WebLogic Se         | ion pool within<br>erver or when d<br>e to define the | eploying the  | data sourc  | e to a new ta  | arget.          |  | m to the pool. The connection pool and the connections within it are created when the connection pool is registered, usually   |
| La pregnosoca  | 🐻 URL:              |   |               | jdb         | c:oracle:th    | in:@whf00a      | iea.in.oracle.com:1523/pmtmppdb                    | The URL of the database to connect to. The format of the URL varies by JDBC driver.  |
|  | 👸 Driver Cl         | ass Name:   |               | ofa         | icle.jdbc.O    | racleDriver     |  | The full package name of JOBC driver class used to create the physical database conne<br>connection pool. (Note that this driver class must be in the classpath of any server to w<br>deployed.) More Info   |
| How do I   | Direction Propertie |   |               |             |                |                 |  | The list of properties passed to the JDBC driver that are used to create physical databa<br>example: server=dbserver1. List each property=value pair on a separate line. More in   |
| <ul> <li>Configure testing options for a JDBC data<br/>source</li> </ul>   | user=CMNU           | ISR18   |               |             |                |                 |  | and the other many of a second s |
| <ul> <li>Configure the statement cache for a JDBC<br/>connection pool</li> </ul>   |                     |   |               |             |                |                 |  |  |
| <ul> <li>Configure credential mapping for a JDBC data<br/>source</li> </ul>  | -                   |   |               |             | li             |                 |  |  |
| <ul> <li>Configure connection harvesting for a<br/>connection pool</li> </ul>  | System Prop         | erties:   |               |             |                |                 |  | The list of System Properties names passed to the JOBC driver that are used to create j<br>connections. For example: server=dbserver1. List each property=value pair on a separ  |
| Encrypt connection properties  |                     |   |               |             |                |                 |  |  |
| System Status  |                     |   |               |             |                |                 |  |  |
| Health of Running Servers as of 5:26 PM  |                     |   |               |             | h              |                 |  |  |
| Failed (0)           Critical (0)           Overloaded (0)           Warning (0)           OK (3)                                      | Encrypted Pr        | roperties:  |               |             | A              | idd Securely    |  | The list of encrypted Properties passed to the 206C driver that are used to create physi<br>connectors. For example: password-walue. There are two ways to entered the values:<br>values at once but the encrypted values will be valued on the screen until you save the<br>option, list each property-walue pair on a separate line. Values entered will be encrypte<br>enter the information second, save any other changes that you wish to make to this p<br>Add Securely buttor. On the Add a new Tricypted Property page, enter the property no<br>and Pild? IC Secure for additional seconder denormativalues.   |

- i. 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\_LLR\_||'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.



| Change Center   | 🙆 Home Log Out Preferences 🔤 Record Help  | v  |  |  |  |  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|--|--|--|--|
| View changes and restarts   | Home > Summary of JDBC Data Sources > jdbc/fcjdevDS_GTXN  |  |  |  |  |  |  |  |  |  |  |  |
| Click the Lock & Edit button to modify, add or delete items in this domain.   | Settings for jdbc/fcjdeVDS_GTXN Configuration Targets Monitoring Control Security Notes General Connection Pool Oracle ONS Transaction Degrocotics Identity Options   |  |  |  |  |  |  |  |  |  |  |  |
| Release Configuration Domain Structure 2M143  | Chick the Lock & Edit button in the Change Center to modify the settings on this page.  |  |  |  |  |  |  |  |  |  |  |  |
| <ul> <li>Pomain Partitions</li> <li>Pervironment</li> <li>Poployments</li> <li>Services</li> <li>Security Realms</li> <li>Thereoperability</li> </ul> | The transaction protocol for a JDBC data source determines how connections from the data source are handled during transaction proces<br>This page enables you to define transaction options for this JDBC data source. |  |  |  |  |  |  |  |  |  |  |  |
| Ĥ-Diagnostics   | Supports Global Transactions Logging Last Resource  | Select this option to enable non-XA connections from the data source transactions. More Info<br>Enables a non-XA IDBC connection to participate in distributed transaction optimization. Recommended in place of Emulate Two |  |  |  |  |  |  |  |  |  |  |
| How do I 🖂  | © Emulate Two-Phase Commit  | Enables a non-XA JDBC connection to emulate participation in distribute<br>option only if your application can tolerate heuristic conditions. More II  |  |  |  |  |  |  |  |  |  |  |
| Configure global transaction options for a     JDBC data source   | One-Phase Commit  | Enables a non-XA JDBC connection to participate in distributed transacti<br>transaction processing. With this option, no other resources can particip<br>Info  |  |  |  |  |  |  |  |  |  |  |
| System Status 🖂   | Save  |  |  |  |  |  |  |  |  |  |  |  |
| Health of Running Servers as of 10:24 AM  | Click the Lock & Edit button in the Change Center to modify the settings on this page.  |  |  |  |  |  |  |  |  |  |  |  |
| Failed (0)           Critical (0)           Overloaded (0)           Warning (0)  |   |  |  |  |  |  |  |  |  |  |  |  |

- 9. Target Server for Datasources created
  - a. If Payments EAR is deployed with embedded Scheduler, all datasources should point to the single Managed Server, where the application is deployed.
  - b. If Payments EAR and Scheduler EAR 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

- 10. Verifying data in SMTB\_MODULES\_GROUP Table
  - i. JNDI Names Input during Installation process must be verified with records in the SMTB\_MODULES\_GROUP table
  - ii. JNDI name provided here should be created on console.

Below is the screenshot of Data Input during installation



| 4 | Oracle FL                | EXCUBE Universal Installer 12.5.0.0.0     |                           |           |
|---|--------------------------|---|---------------------------|-----------|
|   | Orac                     | le Banking Installer                      |                           |           |
|   | Basic Setu<br>Parameter: | p Details<br>s of SMTB_MODULES_GROUP tabl | e in the Database. UPDATE |           |
|   | MODULE                   | MODULE DESCRIPTION                        | JNDINAME                  |           |
|   | FCPMTS                   | Payments Module                           | jdbc/fcjdevDS             |           |
|   | FCSMS                    | SMS                                       | jdbc/fcjdevDS             |           |
|   | FCCOMN                   | Core Services                             | jdbc/fcjdevDS             |           |
|   |                          |   |                           |           |
|   |                          |   |                           |           |
|   |                          |   |                           |           |
|   | 4                        | -III.,:                                   |                           |           |
|   |                          |   |                           |           |
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|   |                          |   |                           |           |
|   |                          |   |                           |           |
|   | Exi                      | Log                                       |                           | Back Next |

Below is the screenshot of records in the SMTB\_MODULES\_GROUP table

| Ę | <b>⊧</b> • | 🔒 🔁 🖘 🗸         | ₹ ₹ ¢ # ø [       | . ▼ ▲   4   日   4        |
|---|------------|-----------------|-------------------|--------------------------|
|   |            | MODULE_GROUP_ID | MODULE_GROUP_DESC | JNDINAMERELEASE          |
| ▶ | 1          | FCCOMN ···      | Core Services     | jdbc/fcjdevDS 14.3.0.5.0 |
|   | 2          | FCSMS ···       | SMS               | jdbc/fcjdevDS 14.3.0.5.0 |
|   | 3          | FCPMTS ···      | Payments Module   | jdbc/fcjdevDS 14.3.0.5.0 |

- 11. 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.



|                            |                              | ources >Su | mmary of J  | MS Servers | >PMJMSSen    | ver >Summary of    | Iodules >PMJMSMODULES >jms/EXTA  | CSYS_REQ_IN >Summary of JMS Modules >PMJMSMODULES >EMS_IN  |
|----------------------------|------------------------------|------------|-------------|------------|--------------|--------------------|--|--|
| ttings for                 | EMS_IN                       |            |             |            |              |                    |  |  |
| Configurati                | ion Monitoring               | Control    | Security    | Subde      | ployment     | Notes              |  |  |
| General                    | Thresholds and Que           | otas Ov    | errides     | Logging    | Delivery     | Failure            |  |  |
| Click the Lo               | ock & Edit button i          | n the Char | nge Center  | to modify  | the setting  | s on this page.    |  |  |
| Save                       |                              |            |             |            |              |                    |  |  |
|                            |                              |            |             |            |              |                    |  |  |
| Use this pa                | age to define messa          | ge deliver | y failure p | arameters, | like specify | ing redelivery lin | selecting a message expiration polic   | y, and specifying an error destination for undeliverable or expired messages.  |
| Redelivery                 | Delay <mark>Override:</mark> |            |             | -1         |              |                    |  | The delay, in milliseconds, before rolled back or recovered messages are redelivered, regardless<br>of the RedeliveryDelay specified by the consumer and/or connection factory. Redelivered queue<br>messages are put back into their originating destination; redelivered topic messages are put<br>back into their conjuniting subcryption. The default value (1) specifies that the destination will<br>not overrise the RedeliveryDelay setting specified by the consumer and/or connection<br>factory. Where info |
| Redelivery Limit:          |                              |            | 0           |            |              |                    | The number of redelivery tries a message can have before it is moved to the error destination.<br>This setting overrides any redelivery limit set by the message sender. If the redelivery limit is<br>configured, but no error destination is configured, then persistent and non-persistent messages<br>are simply dropped (deleted) when they reach their redelivery limit. More Info |  |
| Expiration Policy:         |                              |            | Redire      | ect 🔻      |              |                    | The message Expiration Policy to use when an expired message is encountered on a destinatio<br>The valid expiration policies are: More Info  |  |
| Expiration Logging Format: |                              |            |             |            |              |                    | The policy that defines what information about the message is logged when the Expiration Poli<br>is set to Log. The valid logging policy values are: More Info   |  |
| Error Destination:         |                              |            | EMS_        | IN_E       |              | ¥                  | The name of the target error destination for messages that have expired or reached their<br>redelivery limit. If no error destination is configured, then such messages are simply dropped.<br>a message has expired or reached its redelivery limit, and the Expiration Policy is set to Redree<br>then the message is moved to the specified Error Destination. More Info              |  |
| Save                       |                              |            |             |            |              |                    |  |  |
|                            | ock & Edit button i          |            |             |            |              |                    |  |  |

12. 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\_IN jms/EXT\_PRICE\_RES\_IN jms/EXT\_PRICE\_RES\_BKP\_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/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.
- 13. In case of co-deployed setup, for external queue MDB\_QUEUE\_RESPONSE, check if
  - a. 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.
  - b. In Tab Overrides, value for 'Time-to-Live Override" should be maintained as 2000.



- 14. Check if following Gateway ears are deployed on the Application Server for co-deployed setup.
  - GW EJB
  - GW MDB
- 15. 'SYSTEM' user should be present and debug should be enabled in case debugs needs to be generated for checking the response error from FCUBS.
- 16. User role should be granted to SYSTEM user for the branch from where transaction is posted to MDB.
- 17. Check the maintenance for tables
  - PMTM\_JOB\_PARAM
    - i. 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.

- ii. For parameter PM.CTX.FACTORY value should be weblogic.jndi.WLInitialContextFactory
- PMTM\_SYSTEM\_PARAMETERS
  - i. For PARAM\_NAME "PM.CTX.FACTORY", update the PARAM\_VALUE as 'weblogic.jndi.WLInitialContextFactory'.
  - ii. For PARAM\_NAME "PM\_CTX\_PROVIDER", update the PARAM\_VALUE for Non-Cluster setup as "t3://Weblogic\_IP:Server\_Port" or "t3://Host Name:Server\_Port"

and for Cluster setup as "t3://HOST NAME1: PORT 1, HOST NAME2:PORT 2"

- a. Here Host Name is the name of the Application Server or IP of the Application Server.
- b. Server\_Port is the listen port configured on the application Managed Server where application is deployed.
- For PARAM\_NAME "PM.CTX.CONNFACTORY" the appropriate connection factory needs to be provided which is created in JMS Server for e.g jms/PMQCF.
- iv. For PARAM\_NAME "C2B\_FILE\_PATH", give the C2B path maintained in the Application server.
- v. For PARAM\_NAME "DD\_FILE\_PATH" property, give the DD path maintained in the Application server.
- vi. For PARAM\_NAME "DEBUG\_PATH" property, give the PM DEBUG path maintained in the Application server.
- vii. For PARAM\_NAME "DISPATCH\_PATH" property, give the DISPATCH path maintained in the Application server.
- CSTB\_PARAM
  - i. Check if the below parameters PM.CTX.FACTORY, PM\_CTX\_PROVIDER and PM.CTX.CONNFACTORY exist in CSTB\_PARAM. In case parameters exists, it should have the same value as in in PMTM\_SYSTEM\_PARAMETERS. The parameters need not be maintained



in case it's already maintained in PMTM\_SYSTEM\_PARAMETERS.

- CSTM\_EXTERNAL\_SERVER\_DETAILS
  - For field "CONTEXT\_PROV\_URL", update the values for Non-Cluster setup as "t3://Weblogic\_IP:Server\_Port" or "t3://Host Name:Server\_Port" and for Cluster setup as "t3://HOST NAME1: PORT 1, HOST NAME2:PORT 2" in web-logic application server.
  - iii. Value for QUEUE\_FCTRY\_JNDI should be 'jms/PMQCF'
  - iv. Value for CACHE\_QUEUE\_JNDI should be 'jms/CACHE\_TOPIC'
- 18. Please 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.

| Change Center   | Home Log Out Preferen                                     | nces 🔛 Record Help            |                      | Q                   |                 | Welcome, pminfra Connected to: PM142  |  |  |
|---|---|-------------------------------|----------------------|---------------------|-----------------|---|--|--|
| View changes and restarts   | Home >Summary of JMS Serve<br>Modules >ClusterJMSModule > |                               | ry of Persistent Sto | res >ClusterJMSFile | tore >Summary   | y of Servers >Summary of JMS Modules >PHUMSModule >Summary of JMS   |  |  |
| to pending changes exist. Click the Release<br>Configuration button to allow others to edit the | Settings for jms/CACHE_TOPIC                              |                               |                      |                     |                 |   |  |  |
| domain.   | Configuration Security                                    | Monitoring Subdeploym         | ent Notes            |                     |                 |   |  |  |
| Release Configuration   | General Thresholds and                                    | Quotas Overrides Log          | ing Delivery Fi      | alure Multicast     | Members         |   |  |  |
| Iomain Structure  | Save  |                               |                      |                     |                 |   |  |  |
| M142R   Domain Partitions  Finvironment   | Use this page to define the                               | general configuration for the | s distributed topic  | , such as selecting | a destination k | key for sorting messages as they arrive on the distributed topic members.   |  |  |
| Servers<br>Clusters   | 🟀 Name:   | jms/CACHE_TOPIC               |                      |                     |                 | The name of this distributed topic. More Info   |  |  |
| Server Templates<br>Migratable Targets  | JNDI Name:  | jms/CACHE_TOPIC               |                      |                     |                 | The JNDI name used to look up this topic within the JNDI namespace. More Info   |  |  |
| ····Resource Groups<br>····Resource Group Templates   | Forwarding Policy:  | Replicated ¥                  |                      |                     |                 | The uniform distributed topic message Forwarding Policy specifies whether a sent message is forwarded to all members. Nore Info |  |  |
| ····Machines<br>····Virtual Hosts<br>····Virtual Tarnets  | Template:   | None 🗸                        |                      |                     |                 | The JMS template from which the destination is derived. A template provides an  |  |  |

- 19. 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 EAR creation.
- 20. All EMS folders should be created on the Application server with full rights.
- 21. Check if the value for below EMS properties are correctly defined in fcubs.properties.

EMS\_INIT\_CTX\_FACT=weblogic.jndi.WLInitialContextFactory

i. Non Cluster Setup

EMS\_PRVDR\_URL= t3://Weblogic\_IP:Server\_Port

t3://Weblogic\_IP:Server\_Port" or "t3://Host Name:Server\_Port"

- a. Here Host Name is the name of the Application Server Server or IP of the Application Server.
- b. Server\_Port is the listen port configured on the application Managed Server where application is deployed.
- ii. 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



- 22. 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.
- 23. Below maintenances 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)

