

OBDX Caching Configuration Guide
Oracle Banking Digital Experience
Patchset Release 22.2.5.0.0

Part No. F56934-01

October 2024

OBDX Caching Configuration Guide

October 2024

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/

Copyright © 2006, 2022, Oracle and/or its affiliates. All rights reserved.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate failsafe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

This software or hardware and documentation may provide access to or information on content, products and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.



Table of Contents

1. Preface	1-1
1.1 Purpose	1-1
1.2 Audience	1-1
1.3 Documentation Accessibility	1-1
1.4 Critical Patches	1-1
1.5 Diversity and Inclusion	1-1
1.6 Conventions	1-1
1.7 Screenshot Disclaimer	1-2
1.8 Acronyms and Abbreviations	1-2
2. Introduction	2-1
3. Coherence Cache.....	3-1
3.1 Unicast.....	3-1
3.2 Multicast.....	3-1
4. Caches other than Coherence.....	4-1
5. Using Database	5-1

1. Preface

1.1 Purpose

Welcome to the User Guide for Oracle Banking Digital Experience. This guide explains the operations that the user will follow while using the application.

1.2 Audience

This manual is intended for Customers and Partners who setup and use Oracle Banking Digital Experience.

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 ensure 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 or the glossary.
<i>Italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

1.7 Screenshot Disclaimer

The images of screens used in this user manual are for illustrative purpose only, to provide improved understanding of the functionality; actual screens that appear in the application may vary based on selected browser, theme, and mobile devices.

1.8 Acronyms and Abbreviations

The list of the acronyms and abbreviations that you are likely to find in the manual are as follows:

Abbreviation	Description
OBDX	Oracle Banking Digital Experience

2. Introduction

This document contains information on caching and related configurations to be done for OBDX.

3. Coherence Cache

Coherence cache is provided out the box in OBDX. Coherence uses TCMP protocol to discover cluster members, manage the cluster, provision services, and transmit data. It works on both multicast and unicast routings.

3.1 Unicast

Unicast is the default routing used in OBDX for communication when using Coherence. For enabling unicast routing for Coherence on OBDX, following changes need to be done.

- Add comma separated master servers' Ip and ports in system properties (server start params in managed server in case of WebLogic)

-Dwka.list=<IP1:PORT1>,<IP2:PORT2>

- Run below query in database

```
Insert into digx_fw_config_all_b (PROP_ID,CATEGORY_ID,PROP_VALUE,FACTORY_SHIPPED_FLAG,PROP_COMMENTS,SUMMARY_TEXT,CREATED_BY,CREATION_DATE,LAST_UPDATED_BY,LAST_UPDATED_DATE,OBJECT_STATUS,OBJECT_VERSION_NUMBER,EDITABLE,CATEGORY_DESCRIPTION) values ('COHERENCE_CACHE_ADDRS','dayoneconfig',<IP1:PORT1>,<IP2:PORT2>,'Y','Coherence servers addresses','Coherence servers addresses','ofssuser',sysdate,'ofssuser',sysdate,'Y',1,'N',null);
```

Please replace IP and PORT with respective values. Please note that all PORT values by default will be 9099. Default port value can be changed using system property -Dcoherence.localport . Example : -Dcoherence.localport=9098

Also note that master members should be about 10% of the cluster.

3.2 Multicast

In systems with ephemeral containers, multicast is the preferred option. In cases where multicast routing is undesirable or not supported, unicast routing can be used.

For enabling unicast routing for Coherence on OBDX, following changes need to be done -

Replace **extend-client-config.xml** with below code in **digx-shared-libs.war/WEB-INF/classes**

```
<?xml version="1.0"?>

<cache-config xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns="http://xmlns.oracle.com/coherence/coherence-cache-config"
    xsi:schemaLocation="http://xmlns.oracle.com/coherence/coherence-cache-config
    coherence-cache-config.xsd">
```

```

<キャッシングスキームマッピング>
  <キャッシュマッピング>
    <キャッシュ名>cacheBankConfigurations</キャッシュ名>
    <スキーム名>obdx</スキーム名>
  </キャッシュマッピング>
  <キャッシュマッピング>
    <キャッシュ名>cacheSessionObject</キャッシュ名>
    <スキーム名>obdx</スキーム名>
  </キャッシュマッピング>
  <キャッシュマッピング>
    <キャッシュ名>cacheUserInfo</キャッシュ名>
    <スキーム名>obdx</スキーム名>
  </キャッシュマッピング>
    <キャッシュマッピング>
      <キャッシュ名>cacheAccessPoint</キャッシュ名>
      <スキーム名>obdx</スキーム名>
    </キャッシュマッピング>
      <キャッシュマッピング>
        <キャッシュ名>cacheTask</キャッシュ名>
        <スキーム名>obdx</スキーム名>
      </キャッシュマッピング>
        <キャッシュマッピング>
          <キャッシュ名>cachePartyPreference</キャッシュ名>
          <スキーム名>obdx</スキーム名>
        </キャッシュマッピング>
          <キャッシュマッピング>
            <キャッシュ名>cacheBankNames</キャッシュ名>

```

```

        <scheme-name>obdx</scheme-name>

    </cache-mapping>

    <cache-mapping>

        <cache-name>cachePasswordPolicy</cache-name>

        <scheme-name>obdx</scheme-name>

    </cache-mapping>

        <cache-mapping>

            <cache-name>cacheUserPreferences</cache-name>

            <scheme-name>obdx</scheme-name>

        </cache-mapping>

    <cache-mapping>

        <cache-name>cacheBusinessUnit</cache-name>

        <scheme-name>obdx</scheme-name>

    </cache-mapping>

</caching-scheme-mapping>

<caching-schemes>

    <remote-cache-scheme>

        <scheme-name>obdx</scheme-name>

        <service-name>ExtendTcpCacheService</service-name>

        <initiator-config>

            <outgoing-message-handler>

                <request-timeout>5s</request-timeout>

            </outgoing-message-handler>

            <connect-timeout>5s</connect-timeout>

        </initiator-config>

    </remote-cache-scheme>

```

```

<remote-invocation-scheme>
  <scheme-name>extend-invocation</scheme-name>
  <service-name>ExtendTcpInvocationService</service-name>
  <proxy-service-name>ExtendTcpCacheService</proxy-service-name>
  <initiator-config>
    <outgoing-message-handler>
      <request-timeout>5s</request-timeout>
    </outgoing-message-handler>
  </initiator-config>
</remote-invocation-scheme>
</caching-schemes>
</cache-config>

```

Replace **tangosol-coherence-override.xml** with below code in **digx-coherence.war/WEB-INF/classes**

```

<?xml version='1.0'?>
<coherence xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="http://xmlns.oracle.com/coherence/coherence-operational-config"
  xsi:schemaLocation="http://xmlns.oracle.com/coherence/coherence-operational-config
coherence-operational-config.xsd">
  <cluster-config>
    <member-identity>
      <cluster-name>OBDXCluster</cluster-name>
    </member-identity>
  </cluster-config>

```

```
<logging-config>
    <destination>coherence.log</destination>
    <severity-level>9</severity-level>
</logging-config>
<configurable-cache-factory-config>
    <init-params>
        <init-param>
            <param-type>java.lang.String</param-type>
            <param-value system-property="coherence.cachecon-
fig">OBDX-cache-configuration.xml</param-value>
        </init-param>
    </init-params>
</configurable-cache-factory-config>
</coherence>
```

4. Caches other than Coherence

OBDX can be customized to use other caches as well. This can be achieved by writing a custom java class implementing ***com.ofss.digx.infra.cache.IDistributedCache*** interface

type method should return **CacheType.DISTRIBUTED** and override priority method by providing the priority greater than 1.

5. Using Database

In situations where cache is undesirable, database can be used in place of a dedicated cache mechanism.

For turning off distributed caching and switching to database, run the below script and take a restart

```
update digx_fw_config_all_b set PROP_VALUE='false' where  
PROP_ID='DISTRIBUTED_CACHE_ENABLED';
```