

Oracle® Banking APIs

Berlin Open Banking Configuration Guide



Release 25.2.0.0.0

G60583-01

August 2026

ORACLE®

Copyright © 2006, 2026, Oracle and/or its affiliates.

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.

If this is software, software documentation, data (as defined in the Federal Acquisition Regulation), or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by U.S. Government end users are "commercial computer software," "commercial computer software documentation," or "limited rights data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure, modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other Oracle data, is subject to the rights and limitations specified in the license contained in the applicable contract. The terms governing the U.S. Government's use of Oracle cloud services are defined by the applicable contract for such services. 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 fail-safe, 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.

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

Intel and Intel Inside are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Epyc, and the AMD logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about 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 unless otherwise set forth in an applicable agreement between you and Oracle. 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, except as set forth in an applicable agreement between you and Oracle.

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>.

Oracle customer access to and use of Oracle support services will be pursuant to the terms and conditions specified in their Oracle order for the applicable services.

Contents

Preface

Purpose	i
Audience	i
Documentation Accessibility	i
Critical Patches	i
Diversity and Inclusion	ii
Conventions	ii
Related Resources	ii
Screenshot Disclaimer	ii
Acronyms and Abbreviations	ii

1 Objective and Scope

2 Technology Stack

3 Pre-requisites

4 Headers Configuration

5 Properties

6 OAuth Configuration

6.1 UI Configuration	1
6.2 Code_challenge and Code_verifier configuration	1

7 Extensibility and Code Conventions

Preface

- [Purpose](#)
- [Audience](#)
- [Documentation Accessibility](#)
- [Critical Patches](#)
- [Diversity and Inclusion](#)
- [Conventions](#)
- [Related Resources](#)
- [Screenshot Disclaimer](#)
- [Acronyms and Abbreviations](#)

Purpose

This guide is designed to help acquaint you with the Oracle Banking application. This guide provides answers to specific features and procedures that the user need to be aware of the module to function successfully.

Audience

This document is intended for the following audience:

- Customers
- Partners

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 customer access to and use of Oracle support services will be pursuant to the terms and conditions specified in their Oracle order for the applicable services.

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](#).

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.

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.

Related Resources

For more information on any related features, refer to the following documents:

- Oracle Banking APIs Installation Manuals

Screenshot Disclaimer

Personal information used in the interface or documents is dummy and does not exist in the real world. It is only for reference purposes.

Acronyms and Abbreviations

The list of the acronyms and abbreviations used in this guide are as follows:

Table 1 Acronyms and Abbreviations

Abbreviation	Description
OBAPI	Oracle Banking APIs

1

Objective and Scope

Background

Open Banking Configuration Document provides the various configurations required to enable Berlin Open Banking in OBAPI.

Scope

- Headers Configuration
- Properties
- OAuth Configuration
- Code Convention and Extensibility

2

Technology Stack

Software

Software	Version
Java	Java JDK or JRE version 11
OBDX/OBAPI	25.1.0.0.0
OAuth	OBAPI Internal OAuth

Abbreviations

Abbreviations	Description
OOTB	Out of the Box
TPP	Third Party Providers
ASPS	Account Servicing Payment Service Provider

3

Pre-requisites

Below softwares to be installed

- Java JDK or JRE version 11 or higher must be installed. For installation of Java please refer **Oracle Banking APIs Installation Guide**.
- OAuth Setup

4

Headers Configuration

There are three types of headers configuration available for Berlin Open Banking.

- System Headers (i.e. Mandatory Headers and its respective value validation)
- Configuration Headers (i.e. Mandatory Headers).
- API Configuration Headers (i.e. Mandatory Headers of a specific API)

Below are the configuration steps and Out of the box header already configured in the system.

System Headers: Both Header name and Header value are validated for System Headers.

For configuring more system headers, below script is to be executed in the OBAPI Admin schema.

```
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) values ('berlin.%%HEADERNAME%
%', 'OpenbankingSystemHeaders', '%%HEADERVALUE%', 'N', null, 'Open
Banking', 'ofssuser', sysdate, 'ofssuser', sysdate, 'Y', 1);
```

Below Query is used to check the System Headers in the system

```
select * from digx_fw_config_all_b where category_id = 'OpenbankingSystemHeaders';
```

Configuration Headers: As of now in OOTB one header has been added as mandatory - "X-Request-ID". This header is required to be sent by the TPP to the ASPSP mandatorily with any value.

Only header name is validated in case of Configuration Headers.

For configuring more config headers, below script is to be executed in the OBDX/OBAPI Admin schema.

```
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) values ('berlin.%%HEADER NAME%', '

```

```
OpenbankingConfigHeaders', null, 'N', null, 'OpenBanking', 'ofssuser', sysdate, 'ofss
user', sysdate, 'Y', 1);
```

Below Query is used to check the System Headers in the system

```
select * from digx_fw_config_all_b where category_id =
'OpenbankingConfigHeaders';
```

API Configuration Headers : As of now in OOTB multiple headers have been added as mandatory. This header is required to be sent by the TPP to the ASPSP mandatorily with a corresponding suitable value.

Header name is validated if the entry is made for requested API only in case of API Configuration Headers.

For configuring more api config headers, below script is to be executed in the OBDX/OBAPI Admin schema.

```
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) values ('%
%API_PATH%.%%HTTP_METHOD%', ' OpenbankingApiConfigHeaders', %%HEADER NAME%
%, 'N', null, 'Open
      Banking', 'ofssuser', sysdate, 'ofssuser', sysdate, 'Y', 1);
```

Example: 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) values ('accounts/{account-id}/balances.GET', 'OpenbankingApiConfigHeaders', 'Consent-ID', 'N', null, 'OpenBanking', 'ofssuser', sysdate, 'ofssuser', sysdate, 'Y', 1);

Below Query is used to check the System Headers in the system

```
select * from digx_fw_config_all_b where category_id = 'OpenbankingApiConfigHeaders';
```

5

Properties

Below are the properties required to be updated in the Berlin Open Banking. Please find the below properties, its purpose and OOTB values.

Table: DIGX_FW_CONFIG_ALL_B

Category-Id: OpenBankingConfig

Property Id	Property Value (Out of the Box)	Purpose
CONSENT_EXPIRYDAYS	90	This value is used to check if expiry date send by TPP for the Account Access Consent is not more than 90 days and if it is more than 90 days then ASPSP will reject this value

Table: AUTH_CONFIG

Category-Id: AuthServerConfig

Note

Prior to changing the value of SIGNER to X509RS256 or X509PS256, make sure to generate Public and Private Key Pair in Security Keys Section by logging in as admin.

Property Id	Property Value	Purpose
SIGNER	MAC/no row – MAC Signer X509RS256 – x509 signed token with RS256 algorithm X509PS256 - x509 signed token with PS256 algorithm	The algorithm used to generate JWT token
OAuth_REDIRECT_HOST_PORT	http://{{HOST}}:{{PORT}}	'HOST' refers to the hostname/IP of the application 'PORT' refers to the application's port

6

OAuth Configuration

- [UI Configuration](#)
- [Code_challenge and Code_verifier configuration](#)

6.1 UI Configuration

1. OAuth Identity Domain Maintenance will require below maintenance to configure UI Component for Authorizing consent. Kindly refer “Core User Manual → OAuth 2.0 → Identity Domain Definition” for detailed “Identity Domain Definition” setup. The value of Consent Page URL (Menu → OAuth → Identity Domain Maintenance) is configured as `http://host:port?existingDashboard=true&homeComponent=authorize-consent-berlin&homeModule=open-banking&applicationType=auth&menuNavigationAvailable=false`.
2. Please ensure that `digx-berlinob.war` is deployed and it is in active state.
3. Navigate to `<ui_deploy_folder>/framework/js/api-catalogue.js` and please ensure below snippet if domain is set as "berlinob" for obc.

```
abc: {  
  application: "abc",  
  defaultVersion: "v1",  
  domain: "berlinob"  
},
```

6.2 Code_challenge and Code_verifier configuration

Table: AUTH_CONFIG

Category-Id: AuthServerConfig

Property Id	Property Value	Purpose
isCodeChallengeEnabled	true/false	To enable/disable code_challenge and code_verifier functionality. The default value is 'false'.

Extensibility and Code Conventions

Error Message Framework

The Error Message Framework helps convert the OBAPI error response according to the BERLIN Open Banking Specifications.

The error response structure for Open Banking Read/Write APIs is as follows:

```
{ "tppMessages" :
[
{ "category" : "", "path" : "", "code" : "", "text" :
""
}
]
}
```

The Berlin Open Banking specified error response is handled using DIGX_OB_BERLIN_OBAPI_ERROR_MAP table.

The contents of the table are as follows:

Column Name	Description
DIGX_ERROR_CODE	Represents the OBAPI error codes. This is a Primary and Unique Key
BERLIN_ERROR_CODE	Represents the Open Banking specified error code
PATH	Represents the reference to the JSON Path of the field with error. Can be null.
URL	Represents the URL to help remediate the problem, or provide more information etc. Can be null.

For mapping OBAPI error codes with Berlin Open Banking specified codes below script can be used:

```
Insert into
DIGX_OB_BERLIN_OBAPI_ERROR_MAP(DIGX_ERROR_CODE,BERLIN_ERROR_CODE,PATH,URL)
values ('%%OBAPI ErrorCode%%','%%Open Banking specified error code%%','%%Path%%', '%%URL%%');
```

Below Query is used to check the OBAPI errors mapped with BERLIN Open Banking specified error codes in the system

```
select * from DIGX_OB_BERLIN_OBAPI_ERROR_MAP;
```

For configuring HTTP status codes with custom message, below script can be used:

```
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)  
  
values ('%HTTP Status code%', 'OpenBankingErrorConfig', '%Error Message%  
%', 'N', null,  
'OpenBanking Error Message', 'ofssuser', sysdate, 'ofssuser', sysdate, 'Y', 1);
```

Below Query is used to check the Open Banking HTTP status codes in the system select *
from digx_fw_config_all_b where category_id = 'OpenBankingErrorConfig';

Index

C

Code_challenge and Code_verifier configuration, [1](#)

E

Extensibility and Code Conventions, [1](#)

H

Headers Configuration, [1](#)

O

Objective and Scope, [1](#)

P

Pre-requisites, [1](#)

Properties, [1](#)

T

Technology Stack, [1](#)

U

UI Configuration, [1](#)