

Standalone Scheduler Property File Creation

Oracle Banking Payments

Release 14.5.3.0.0

[Dec] [2021]

ORACLE®
FINANCIAL SERVICES

Table of Contents

1.	Creating Property File for Standalone Scheduler.....	1-1
1.1	Introduction	1-1
1.2	Creating Property File	1-1
1.2.1	Configuring Scheduler	1-4
1.2.2	Setting Common Properties	1-5
1.2.3	Single Sign on.....	1-7
1.2.4	SMTPS Details	1-8
1.2.5	Configuring Scheduler Queues	1-10
1.2.6	Setting EMS FTP/FTPS Properties.....	1-15
1.2.7	Saving Property File	1-21

1. Creating Property File for Standalone Scheduler

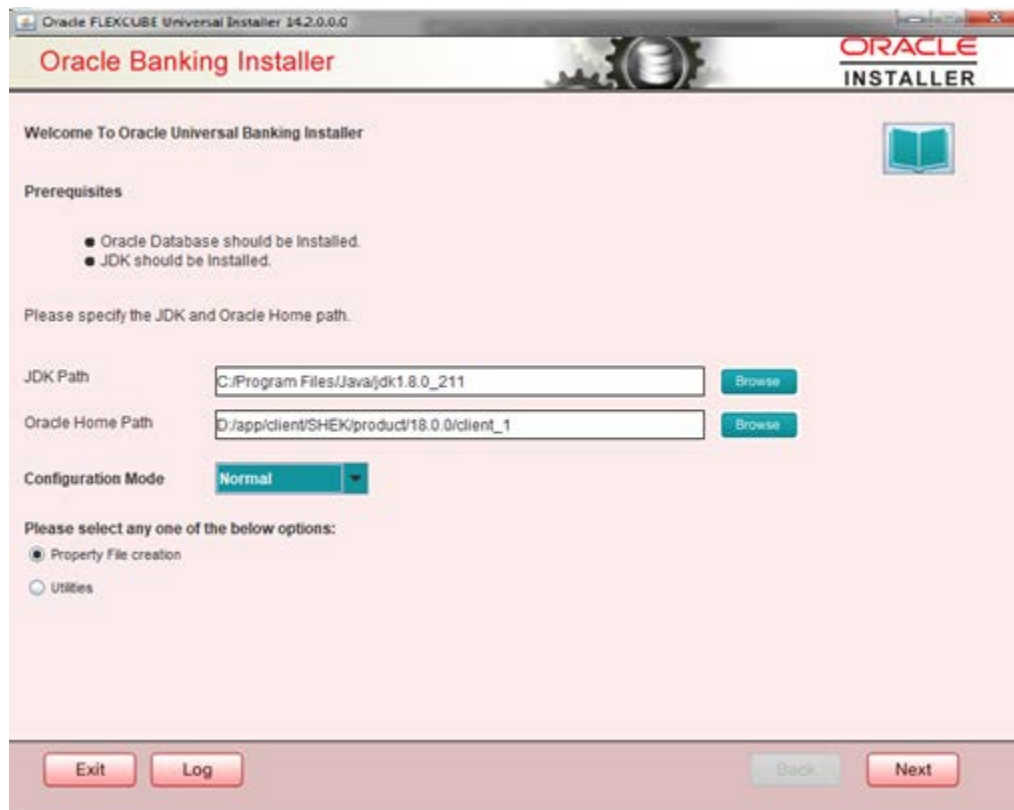
1.1 Introduction

This chapter explains the steps to create property file for Standalone Scheduler.

1.2 Creating Property File

To create the property file for Oracle Banking Payments, follow the steps given below:

1. Launch Oracle Banking Universal Installer. Select 'Property File Creation' option and Click 'Next' button.



2. Select 'Scheduler' component and appropriate plugin if needed

Oracle FLEXCUBE Universal Installer 12.5.0.0.0

Oracle Banking Installer

Select one of the Components

Load Existing Property File

☐ INFRA ☒ Scheduler ☐ Gateway ☐ Switch Interface Installation

Select Oracle Product Processors

☒ Oracle FLEXCUBE Universal Banking

☐ Oracle FLEXCUBE Enterprise Limits and Collateral Management (CO-DEPLOY)

☒ Oracle Banking Payments

☐ Oracle Banking Corporate Lending ☐ Open Development Tool

☐ Oracle Banking Treasury ☒ Oracle FLEXCUBE Universal Banking for JAPAN

☐ Oracle Banking Trade Finance

Select Plugins to be Installed

☐ Branch Load Existing Branch Property File

Host Address ☐ BPCL ☐ Scheduler

☐ Reports ☐ OFTW ☐ FGL ☐ SIANET Adapter

☐ DMS ☐ Insulation ☐ ELCM Adapter required

3. The below Screen accepts EAR name, Context Name, Application Server Path, Source Path and EAR Destination path. Enter the valid data and select File Separator Style and application server from drop down.

Oracle FLEXCUBE Universal Installer 14.2.0.0.0

Oracle Banking Installer

ORACLE
INSTALLER

Provide Environment details.

EAR Name:

Context Name:

File Separator Style:

Application Server:

Application Server Path:

Source Path:

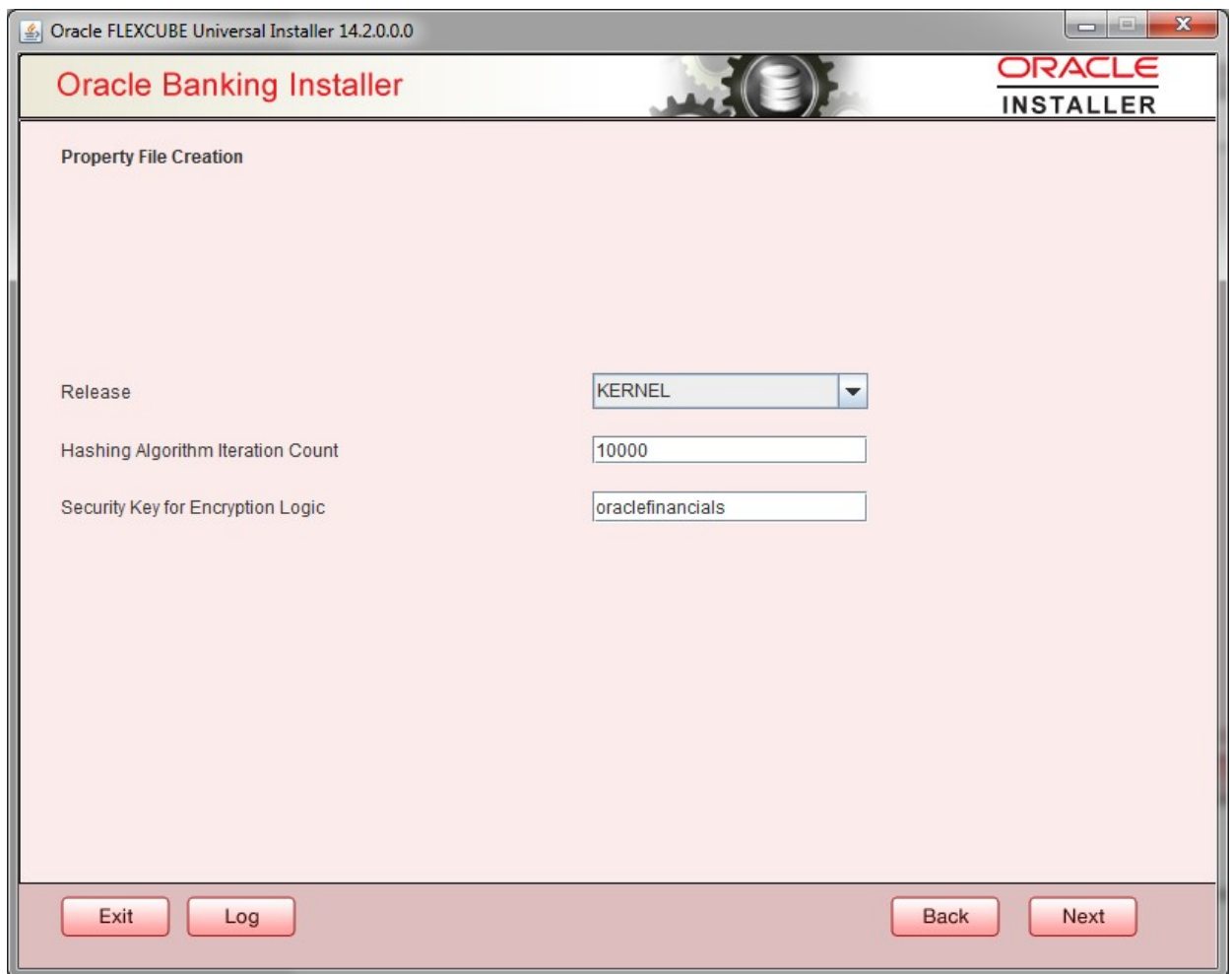
Ear Destination Path:

4. Click on 'Next' button to navigate to below Screen.
5. Below shown Screen contains:

Release

Select the release from the adjoining drop down list.

Hashing Algorithm Iteration Count and **Security key for encryption logic** should be entered which will be used for encryption. By default the value is 'oraclefinancials'.



1.2.1 Configuring Scheduler

This section describes the method to configure scheduler data source.

1. System displays the following screen:

The screenshot shows the Oracle Banking Installer window. The title bar reads "Oracle FLEXCUBE Universal Installer 14.2.0.0.0". The window has a header with "Oracle Banking Installer" on the left and the "ORACLE INSTALLER" logo on the right. The main content area is titled "Property File Creation - Data Source" and contains the instruction "Please enter DataSource Names". There are five input fields for data sources: "SMS Data Source" (jdbc/fcjsmsDS), "Branch Data Source" (jdbc/fcdevDSBranch), "Scheduler Data Source" (jdbc/fcjschedulerDS), "PM Online JNDI" (jdbc/fcjpmsDS), and "PM Batch JNDI" (jdbc/fcjpmsDS). Below these are three input fields for URLs: "Webservices Provider URL" (t3://localhost:7001/), "Host Server URL" (https://10.10.10.10:1010/FCJNeoWeb), and "Standalone Scheduler URL" (https://10.10.10.10:7001/FCJNeoWeb). At the bottom, there are four buttons: "Exit", "Log", "Back", and "Next".

2. Specify the following details:

Scheduler Datasource

Specify the scheduler datasource which Oracle Banking Payments will access.

1.2.2 Setting Common Properties

This section describes the process of setting common properties of Standalone Installer.

1. The installer displays the 'Common Properties' screen.

Oracle FLEXCUBE Universal Installer 14.2.0.0.0

Oracle Banking Installer

ORACLE INSTALLER

Property File Creation - General Property

Debug Logs Required: **Yes** ☐ LOV Fetch Required

Work Area: /BrnDbgs/

Signature Path: /BrnDbgs/

Excel Path: /BrnDbgs/

Request Time Out: 1800000 milli seconds

Connection Time Out: 3600 Seconds

Session Time Out: 1800 Seconds

CSS Style: Default

Language: ENGLISH

Auto clear User: YES

Max Image Size: 1048576 Bytes

User Batch Time: 0 Hours

Name: Flexblue

ISO Code: en

Application Title: FLEXCUBE UBS

Version: 14.2.0.0.0

CopyRights: Copyright © 2017,2018, Oracle and/or its affiliates. All rights reserved.

Exit Log Back Next

2. Specify the following details:

Debug Logs Required

If you require debug option, select 'Yes' from the drop-down list. If you do not require debug option, select 'No'.

Work Area

Specify the work area.

For example: D:\BrnDbgs\

Signature Path

Specify the location at which the signature images are placed.

Excel Path

Specify the location at which the excel files are generated.

Request Time Out

Specify the database request timeout value in milli seconds. This is the maximum number of seconds the database waits for a query to return the result.

Connection Time Out

Specify the database connection timeout value in seconds. This is the maximum number of seconds the application waits for a connection to the database to open.

Session Time Out

Enter the session time out value in seconds. This is the maximum number of seconds during which the application gets active without any user intervention. If there is no user intervention continuously for the duration specified here, the user session gets expire.

LOV Fetch Required

If you check this box, the option lists in Oracle Banking Payments displays the matching values based on the first characters that you enter in a field. If you specify the first three characters of a value to be entered in an option list and tab out, the system displays the complete list of values that are matching the first three characters.

If you do not check this, option lists does not show the matching values based on the first few characters. You need to specify the complete value against the field.

Click 'Next' and the following screen is displayed:

CSS style

Select Default or Custom from dropdown. By Default CSS Style name will be 'flexblue'.

Language

Select language from the dropdown.

Version and Copyright are other general properties.

Click on Next button, once all the property details are entered.

1.2.3 Single Sign on

Only 'OPSS Available' option will be enabled for Scheduler. Select the option if needed.

Oracle FLEXCUBE Universal Installer

Oracle Banking Installer

Property File Creation - Single Sign on

SSO Required ☐ SSO Type **DEFAULT**

SSO KEY **DN**

Authentication details maintained external to FLEXCUBE

External Password Required ☐ Authentication Type **MSAD**

External User Login Required ☐

☒ OPSS Available

Option to provide LDAP server details

No.	Name	Value
1	LDAP SERVER URL	LDAP://10.10.10.10:111
2	LDAP SSL ENABLED	<input type="checkbox"/>
3	SECURITY AUTHENTICATION TYPE	Simple
4	DOMAIN NAME	I-FLEX.COM
5	LDAP SERVER TIMEOUT	0

Option to provide SAML details

No.	Name	Value
1	SAML CERTIFICATE PATH	D:\Security\SAML_Implementation\TestFiles\certstore\b...
2	SAML CERTIFICATE PASSWORD	*****
3	SAML CERTIFICATE ALIAS	barc
4	SAML VALID AUDIENCE	bPAID_BWSIT

Exit Log Back Next

1.2.4 SMTPTS Details

SMPTS mail configuration is enabled for Scheduler.

Specify the below details:

Host: Specify the SMTP host name.

User ID: Specify the user ID.

User Password: Specify the user password.

JNDI Name: Specify the JNDI name.

Oracle FLEXCUBE Universal Installer

Oracle Banking Installer

Property File Creation - SMTPS/Branch/DMS

Option for Mail configuring using SMTPS Protocol.

No.	Name	Value
1	Host	samplename.mail.com
2	User Id	infra
3	User Password	••••••
4	JNDI Name	mail/FCUBSMail

Option for modifying the Branch properties.

No.	Name	Value
1	Date Separator	-
2	WorkFlow Frequency	6000
3	Compress Request	<input checked="" type="checkbox"/>

Option for modifying the DMS/IPM property values.

No.	Name	Value
1	Login Service Address	http://10.10.10.10:1010/imaging/ws/LoginService
2	Document Service Address	http://10.10.10.10:1010/imaging/ws/DocumentService
3	Document Content Service Address	http://10.10.10.10:1010/imaging/ws/DocumentContentService
4	IPM User Name	testuser
5	IPM Password	••••••

Exit Log Back Next

1.2.5 Configuring Scheduler Queues

This section describes the method to configure scheduler Queues.

1. System displays the following screen:

Oracle FLEXCUBE Universal Installer 14.2.0.0.0

Oracle Banking Installer

Property File Creation - Scheduler Queues

Option for configuring Scheduler Destination Queue

Notify Destination: **QUEUE**

Queue Name: **NOTIFY_DEST_QUEUE**

Queue Connection Factory: **NotifyDestQCF**

☐ Secure Caller ID:

Caller Password:

Notify Queue Location: **Internal**

Option for configuring Scheduler Deferred Queue

Notify Deferred Queue Name: **DEFERRED_DEST_QUEUE**

Deferred Queue Connection Factory: **DeferredDestQCF**

☐ Secure Caller ID:

Caller Password:

Option for configuring Scheduler Notify Internal Queue

Notify Queue Name: **NOTIFY_QUEUE**

Dead Letter Queue Name: **NOTIFY_QUEUE_DLQ**

Notify Queue Connection Factory: **NOTIFY_MDB_QCF**

☐ Secure Caller ID:

Caller Password:

Option for configuring Log Rotation Interval

Scheduler Log Rotation Interval: **WEEKLY**

Option for External Server configuration for Destination Queue.

No.	Name	Value
1	Provider URL	iio://localhost:1010
2	Security Principal	*****
3	Security Credential	*****

Exit Log Back Next

1. Specify the following details:

Notify Destination

Specify the notify destination. Select one of the following options:

- QUEUE
- TOPIC

Queue Name

Set 'NOTIFY_DEST_QUEUE' as the destination queue name.

Queue Connection Factory

Set 'NotifyDestTCF' as the queue connection factory.

Secure

Check this box to indicate that it is a secured queue connection factory. If you check this box, you will be prompted to specify the caller ID and caller password as shown in the following screen.

Oracle Banking Installer

Property File Creation - Scheduler Queues

Option for configuring Scheduler Destination Queue

Notify Destination: **QUEUE**

Queue Name: **NOTIFY_DEST_QUEUE**

Queue Connection Factory: **NotifyDestQCF**

☐ Secure Caller ID:

Caller Password:

Notify Queue Location: **Internal**

Option for configuring Scheduler Deferred Queue

Notify Deferred Queue Name: **DEFERRED_DEST_QUEUE**

Deferred Queue Connection Factory: **DeferredDestQCF**

☐ Secure Caller ID:

Caller Password:

Option for configuring Scheduler Notify Internal Queue

Notify Queue Name: **NOTIFY_QUEUE**

Dead Letter Queue Name: **NOTIFY_QUEUE_DLQ**

Notify Queue Connection Factory: **NOTIFY_MDB_QCF**

☐ Secure Caller ID:

Caller Password:

Option for configuring Log Rotation Interval

Scheduler Log Rotation Interval: **WEEKLY**

Option for External Server configuration for Destination Queue.

No.	Name	Value
1	Provider URL	iiop://localhost:1010
2	Security Principal	*****
3	Security Credential	*****

Exit Log Back Next

Caller ID

Specify the caller ID for the secured queue connection factory.

Caller Password

Specify the password for the caller ID to access the secured queue connection factory.


STOP If the queue connection factory is not secured, i.e., if you have not checked the box 'Secure', the installer will not display the fields 'Caller ID' and 'Caller Password'. You need not provide these details in that case.

Notify Queue Location

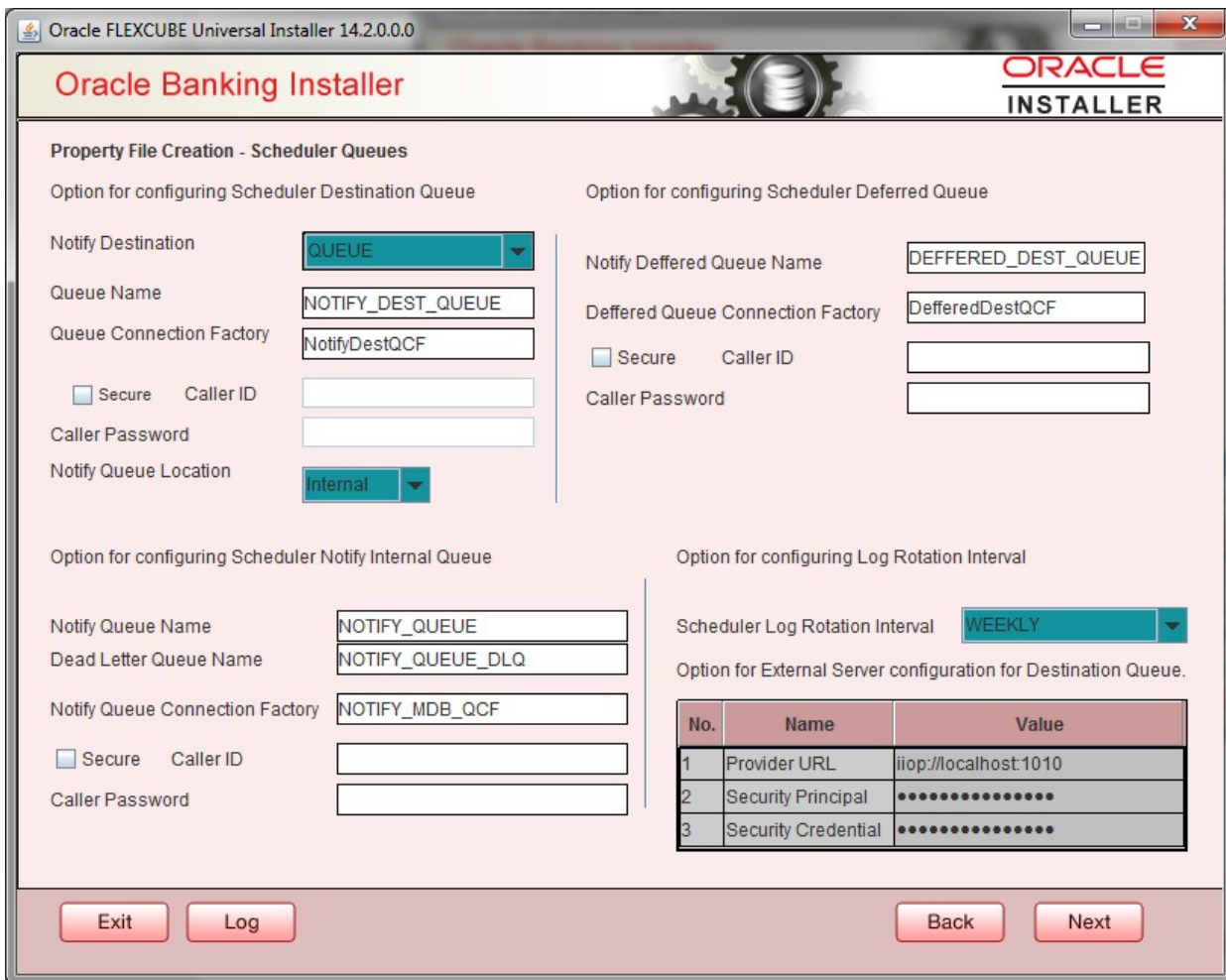
Specify the notify queue location. Select one of the following options:

- Internal

- External

 For Oracle WebLogic application server, the notify queue location should be selected as 'Internal'. If you choose 'Internal' as the 'Notify Queue Location', the screen provided in the following step does not get displayed. You will be navigated to next step where you can specify the notify deferred queue name and connection factory.

2. If you choose 'External', system displays the following screen:



The screenshot shows the 'Oracle Banking Installer' window with the title 'Oracle FLEXCUBE Universal Installer 14.2.0.0.0'. The main heading is 'Oracle Banking Installer' and the Oracle logo is in the top right corner. The screen is titled 'Property File Creation - Scheduler Queues'.

There are four main sections for configuration:

- Option for configuring Scheduler Destination Queue:**
 - Notify Destination: **QUEUE** (dropdown)
 - Queue Name: **NOTIFY_DEST_QUEUE**
 - Queue Connection Factory: **NotifyDestQCF**
 - ☐ Secure
 - Caller ID:
 - Caller Password:
 - Notify Queue Location: **Internal** (dropdown)
- Option for configuring Scheduler Deferred Queue:**
 - Notify Deferred Queue Name: **DEFERRED_DEST_QUEUE**
 - Deferred Queue Connection Factory: **DeferredDestQCF**
 - ☐ Secure
 - Caller ID:
 - Caller Password:
- Option for configuring Scheduler Notify Internal Queue:**
 - Notify Queue Name: **NOTIFY_QUEUE**
 - Dead Letter Queue Name: **NOTIFY_QUEUE_DLQ**
 - Notify Queue Connection Factory: **NOTIFY_MDB_QCF**
 - ☐ Secure
 - Caller ID:
 - Caller Password:
- Option for configuring Log Rotation Interval:**
 - Scheduler Log Rotation Interval: **WEEKLY** (dropdown)

At the bottom right, there is a section titled 'Option for External Server configuration for Destination Queue.' containing a table:

No.	Name	Value
1	Provider URL	iiop://localhost:1010
2	Security Principal
3	Security Credential

At the bottom of the window, there are buttons for 'Exit', 'Log', 'Back', and 'Next'.

3. Specify the following details of the external queue.

Provider URL

Specify the provide URL (iiop://localhost:1010).

1010 is the default IIOP port.

Application Server	EMS Out Initial Context Factory
Oracle WebLogic	t3://<ip_adress>:port For example: t3://10.10.10.10:1010 Here, 10.10.10.10 represents the local host and 1010 to the target server default port (AdminServer/ManagedServer).

Security Principal

Specify the login ID to access the application server.

Security Credentials

Specify the password to access the application server.


4. Click 'Next' to proceed with scheduler configuration.



If you choose 'Internal' as the 'Notify Queue Location', you will be directly navigated to the following screen. In that case, the installer will not show the screen explained in the previous step.

Oracle FLEXCUBE Universal Installer 14.2.0.0.0

Oracle Banking Installer



Property File Creation - Scheduler Queues

Option for configuring Scheduler Destination Queue

Notify Destination: QUEUE

Queue Name: NOTIFY_DEST_QUEUE

Queue Connection Factory: NotifyDestQCF

☐ Secure Caller ID:

Caller Password:

Notify Queue Location: Internal

Option for configuring Scheduler Deferred Queue

Notify Deferred Queue Name: DEFERRED_DEST_QUEUE

Deferred Queue Connection Factory: DeferredDestQCF

☐ Secure Caller ID:

Caller Password:

Option for configuring Scheduler Notify Internal Queue

Notify Queue Name: NOTIFY_QUEUE

Dead Letter Queue Name: NOTIFY_QUEUE_DLQ

Notify Queue Connection Factory: NOTIFY_MDB_QCF

☐ Secure Caller ID:

Caller Password:

Option for configuring Log Rotation Interval

Scheduler Log Rotation Interval: WEEKLY

Option for External Server configuration for Destination Queue.

No.	Name	Value
1	Provider URL	iiop://localhost:1010
2	Security Principal
3	Security Credential

Exit
Log
Back
Next

5. Specify the following details:

Notify Deferred Queue Name

Set 'DEFERRED_DEST_QUEUE' as the notify deferred queue name.

Deferred Queue Connection Factory

Set 'DeferredDestQcf' as the deferred queue connection factory.

Secure

Check this box to indicate that it is a secured deferred queue connection factory. If you check this box, you will be prompted to enter the caller ID and caller password as shown in the following screen.

6. Specify the caller ID and caller password for the secured deferred queue connection factory.
7. Click 'Next' and the following screen is displayed:
8. Specify the following details:

Notify Queue Name

Set 'NOTIFY_QUEUE' as the notify queue name.

Dead Letter Queue Name

Set 'NOTIFY_QUEUE DLQ' as the dead letter queue name.

Notify Queue Connection Factory

Set 'NOTIFY_MDB_QCF' as the notify queue connection factory.

Secure

Check this box to indicate that it is a secured queue connection factory. If you check this box, you will be prompted to enter the caller ID and caller password as shown in the following screen.

9. Specify the caller ID and caller password for the secured notify queue connection factory.
10. Click 'Next' and the following screen is displayed:

1.2.6 Setting EMS FTP/FTPS Properties

You will be navigated to the 'Scheduler EMS Properties' screen. Here, you need to set the EMS details.

1. Set the EMS properties:

Oracle FLEXCUBE Universal Installer 14.2.0.0.0

Oracle Banking Installer

ORACLE
INSTALLER

Property File Creation - Scheduler EMS Queue

No.	Name	Value
1	Incoming Dead Letter Queue Name	EMS_QUEUE_DLQ
2	Incoming backup Queue Name	EMS_QUEUE_BACK
3	Incoming Queue Connection Factory	EmsQcf
4	Secure Incoming Queue Connection	<input type="checkbox"/>
5	Incoming Queue Caller Id	
6	Incoming Queue Caller Password	
7	Outgoing Dead Letter Queue Name	EMS_QUEUE_DLQ
8	Outgoing Queue Connection Factory	EmsQcf
9	Secure Outgoing Queue Connection	<input type="checkbox"/>
10	Outgoing Queue Caller Id	
11	Outgoing Queue Caller Password	
12	Outgoing Queue Provider URL	t3://10.10.10.10:1010
13	Queue Principal	*****
14	Queue Credential	*****
15	Incoming Queue Name	EMS_INQUEUE
16	Outgoing Queue Name	EMS_OUTQUEUE
17	SFMS Incoming Queue	SFMS_INQUEUE
18	RTGS Incoming Queue	RTGS_INQUEUE
19	EMS Bulker Queue	BULKER_QUEUE

Exit Log Back Next

2. Specify the following details:

OutGoing Connection Factory

Specify the name of the outgoing connection factory to which EMS listens. You need to create this connection factory at the application server.

For details on connection factory creation, follow the steps described for creation of notify connection factories.

Incoming Connection Factory

Specify the name of the incoming connection factory to which EMS listens. You need to create this connection factory at the application server.

For details on connection factory creation, follow the steps described for creation of notify connection factories.

Outgoing Queue Name

Specify the name of the outgoing queue for which EMS is configured. By default, this is set as 'NOTIFY_QUEUE_DLQ'.

Incoming Queue Name

Specify the name of the incoming queue for which EMS is configured. By default, this is set as 'NOTIFY_QUEUE_DLQ'.

Incoming Backup Queue Name

Specify the name of the incoming backup queue for which EMS is configured.

Outgoing Queue Provider URL

In case EMS OUT MDB is to be configured to queue, you need to specify the URL for outgoing provider based on the application server. By default, the Installer displays the outgoing queue provider URL for Oracle WebLogic.

This value is application server dependent.

The details of Outgoing Queue Provider URL to be used for different application servers are given below:

Application Server	EMS Out Initial Context Factory
Oracle WebLogic	t3://<ip_address>:port E.g.: t3://10.10.10.10:1010 Here, 10.10.10.10 represents the local host and 1010 to the target server default port (AdminServer/ManagedServer).

Queue Principal

If EMS OUT MDB has to be configured to queue, you need to specify the EMS out queue principal. This is the user name for the application server in which the queue is configured.

Queue Credential

If EMS OUT MDB has to be configured to queue, you need to specify the EMS out queue credential. This is the password for the above user name created for application server in which the queue configured.

Incoming Queue Name

Specify the incoming queue name.

Outgoing Queue Name

Specify the outgoing queue name.

SFMS Incoming Queue

Specify the SFMS Incoming Queue.

RTGS Incoming Queue

Specify the RTGS incoming Queue.

EMS Bulker Queue

Specify the EMS Bulker Queue.

3. Once you have specified the above details, click 'Next' and the following screen is displayed:

Oracle FLEXCUBE Universal Installer 14.2.0.0.0

Oracle Banking Installer

ORACLE
INSTALLER

Property file Creation - EMS FTP/FTPS
Option for Scheduler EMS FTP/FTPS configuration

No.	Name	Value
1	File TranferMode FTPS	FTPS
2	Server	10.10.10.10
3	User id	OFSS
4	Password	*****
5	KnownHost file local folder path	/mnt/ems/SFTP/
6	KnownHost file server folder path	/mnt/ems/SFTP/
7	File Type	.txt
8	SWIFT Format	1
9	SWIFT Message Delimiter	<input checked="" type="checkbox"/>
10	SWIFT Message Terminator	<input checked="" type="checkbox"/>
11	MEDIA	SWIFT

Option for EMS -Structured Financial Messaging System configuration

No.	Name	Value
1	Signature Block	<input checked="" type="checkbox"/>
2	Keystore File Name	/keystore
3	Keystore Alias name	*****
4	Keystore Password	*****

Exit Log Back Next

4. Specify the following details:

File Transfer Mode FTPS

Specify the mode of transferring files to EMS. Select one of the following:

- FTPS
- SFTP
- HTTP

Server

Specify the server IP address for the selected file transfer mode.

User ID

Specify the user ID to access the server of the file transfer mode.

Password

Specify the password to for the above user ID.

File Type

Specify the type of file that is transferred. By default, the Installer sets it as '.txt'.

SWIFT Message Delimiter

Specify the character which is used as the message delimiter.

SWIFT Message Terminator

Specify the character which is used as the message terminator.

5. Once you have specified the above details, click 'Next'. and the following screen is displayed:

Oracle FLEXCUBE Universal Installer 14.2.0.0.0

Oracle Banking Installer

Property file Creation - EMS FTP/FTPS
Option for Scheduler EMS FTP/FTPS configuration

No.	Name	Value
1	File TranferMode FTPS	FTPS
2	Server	10.10.10.10
3	User id	OFSS
4	Password	*****
5	KnownHost file local folder path	/mnt/ems/SFTP/
6	KnownHost file server folder path	/mnt/ems/SFTP/
7	File Type	.txt
8	SWIFT Format	1
9	SWIFT Message Delimiter	<input checked="" type="checkbox"/>
10	SWIFT Message Terminator	<input checked="" type="checkbox"/>
11	MEDIA	SWIFT

Option for EMS -Structured Financial Messaging System configuration

No.	Name	Value
1	Signature Block	<input checked="" type="checkbox"/>
2	Keystore File Name	/keystore
3	Keystore Alias name	*****
4	Keystore Password	*****

Exit Log Back Next

6. Specify the following details:

Signature Block

Check this box to enable signature block.

Keystore File Name

Specify the keystore file name.

Keystore Alias Name

Specify the keystore alias name.

Keystore Password

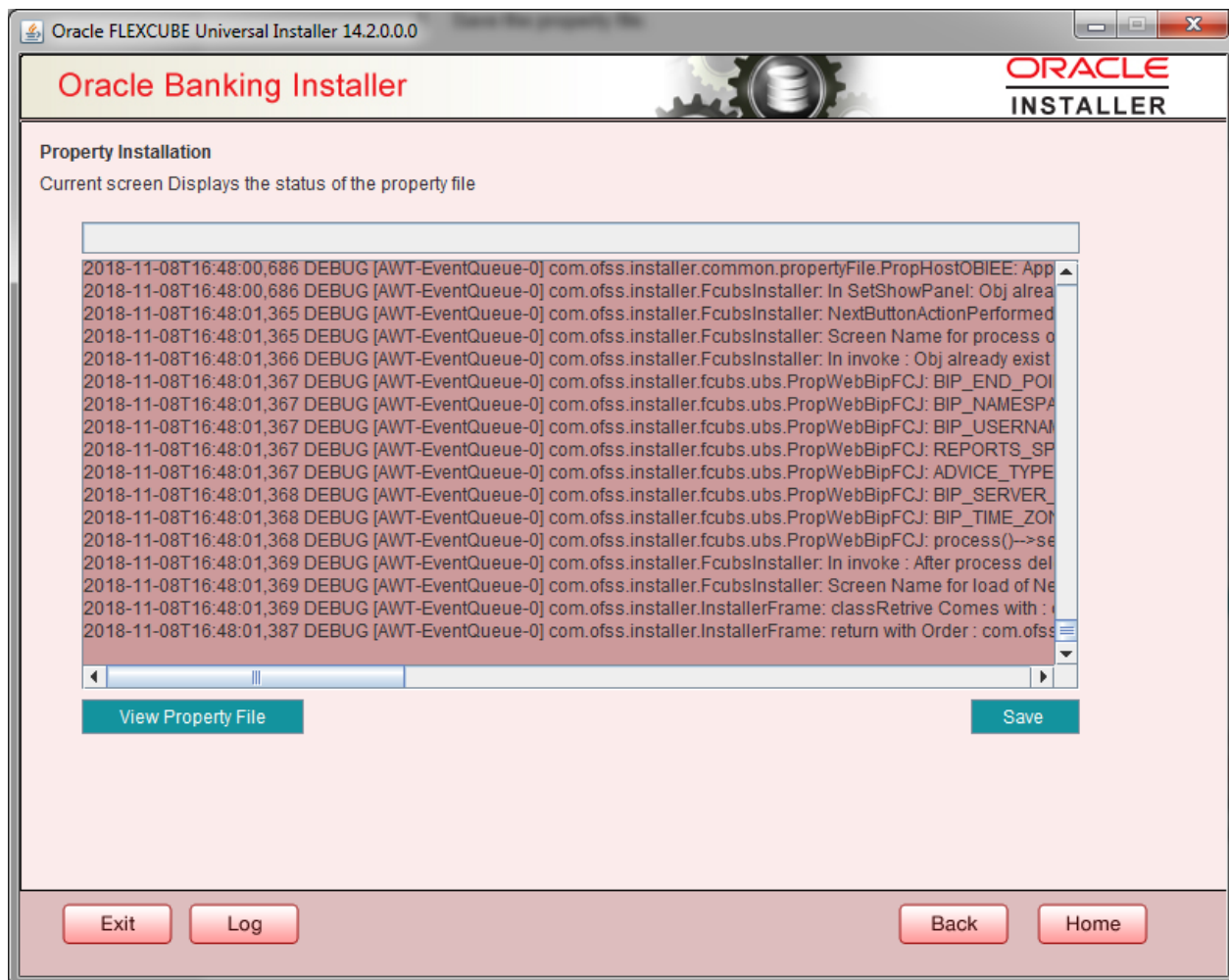
Specify the keystore password.

7. Once you have specified the above details, click 'Next' and system displays the next screen.

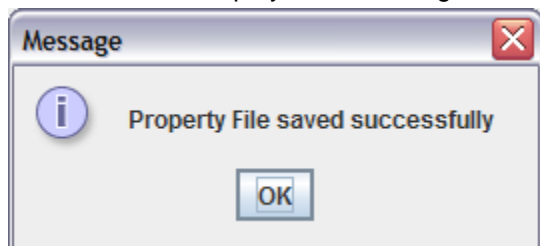
1.2.7 Saving Property File

After completing all the required settings explained above, you need to save the property file.

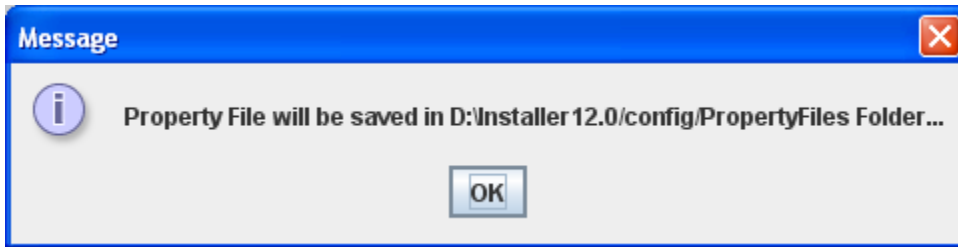
1. Save the property file.



2. You can view the status of property file creation in the above screen. Once the file is saved, the installer displays the following message:



3. If you do not use the 'Save' or 'Save As' buttons, the installer will save the properties file in '<InstallerSources>\config\PropertyFiles' folder. In that case, you will see the message below.



This completes the properties file creation.



Oracle Banking Payments

Standalone Scheduler Property File Creation
[Dec] [2021]
Version 14.5.3.0.0

Oracle Financial Services Software Limited
Oracle Park
Off Western Express Highway
Goregaon (East)
Mumbai, Maharashtra 400 063
India

Worldwide Inquiries:
Phone: +91 22 6718 3000
Fax: +91 22 6718 3001
www.oracle.com/financialservices/

Copyright © 2017, 2021 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.