

Gateway Application Setup  
Oracle FLEXCUBE Investor Servicing  
Release 14.4.0.0.0  
[July] [2020]



---

# Table of Contents

<b>1.</b>	<b>SETTING UP GATEWAY FOR ORACLE FLEXCUBE .....</b>	<b>1-1</b>
1.1	INTRODUCTION .....	1-1
1.2	SETTING UP GATEWAY EJB APPLICATION.....	1-1
1.2.1	<i>Prerequisites</i> .....	1-1
1.2.2	<i>Building EAR File</i> .....	1-1
<b>2.</b>	<b>SETTING UP GATEWAY MDB APPLICATION .....</b>	<b>2-1</b>
2.1.1	<i>Prerequisites</i> .....	2-1
2.1.2	<i>Building EAR File</i> .....	2-1
<b>3.</b>	<b>SETTING UP GATEWAY HTTP APPLICATION.....</b>	<b>3-1</b>
3.1.1	<i>Prerequisites</i> .....	3-1
3.1.2	<i>Building EAR file</i> .....	3-1
<b>4.</b>	<b>SETTING UP GATEWAY WEB SERVICE APPLICATION .....</b>	<b>4-1</b>
4.1.1	<i>Prerequisites</i> .....	4-1
4.1.2	<i>Building EAR File</i> .....	4-1
<b>5.</b>	<b>POST BUILDING ACTIVITY .....</b>	<b>5-1</b>
5.1	INTRODUCTION .....	5-1
5.1.1	<i>Gateway Configuration</i> .....	5-1
5.1.2	<i>Deployment Using Oracle WebLogic Application Server</i> .....	5-1
5.1.3	<i>Deployment Using IBM WebSphere Application Server</i> .....	5-1

---

# 1. Setting up Gateway for Oracle FLEXCUBE

## 1.1 Introduction

This chapter explains the steps for setting up the Gateway Application for Oracle FLEXCUBE.

## 1.2 Setting up Gateway EJB Application

This section explains the methods of setting up Gateway EJB Application.

### 1.2.1 Prerequisites

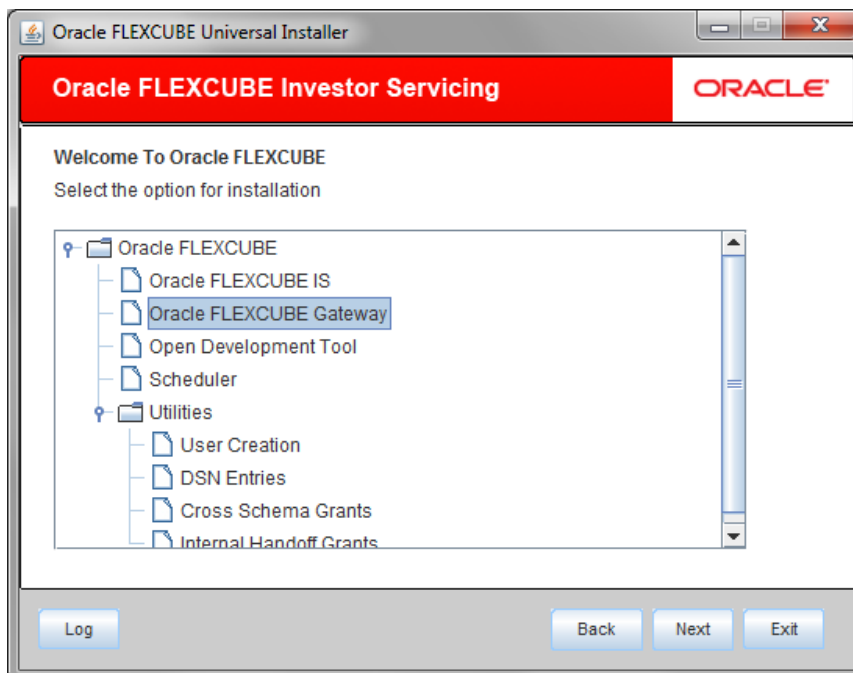
You need to create the following gateway EJB property files before building the application:

- gw\_ejb\_logger.properties
- GW\_EJB\_Prop.properties

### 1.2.2 Building EAR File

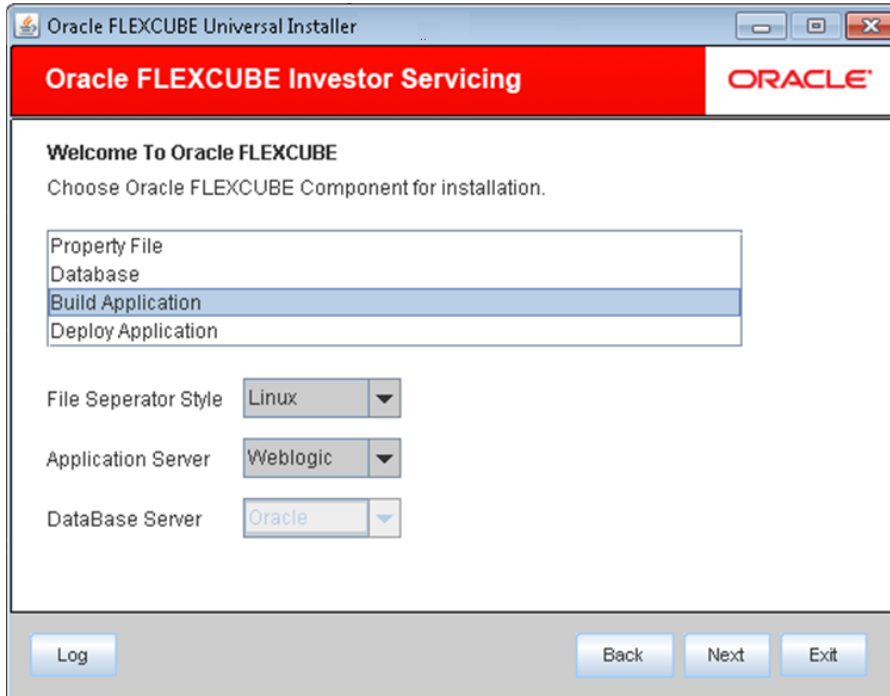
In order to build EAR file for Gateway EJB Application, you need to follow the steps given below:

1. Launch Oracle FLEXCUBE Universal Installer. The welcome screen is displayed.
2. Click 'Next' the following screen will be displayed.



3. Choose the Application 'Gateway'. Click 'Next'.

The following screen is displayed:



4. Specify the following details:

#### **File Separator Style**

Specify the style of file separator (e.g Linux or Windows). Choose the appropriate one from the drop-down list.

#### **Application Server**


Specify the application server in which you are creating the property file. Choose the appropriate one from the drop-down list.

5. Choose 'Build Application'. Click 'Next'. The following screen is displayed:
6. This is the FC HOME folder that needs to be set. Also, it should point to SMS schema. Those versions less than or equal to the current environment are allowed.

Oracle FLEXCUBE Universal Installer

**Oracle FLEXCUBE Investor Servicing** ORACLE

Installation Type ☐

FC Home  

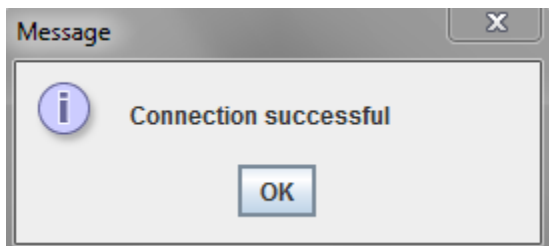
☒ EAR Build ☐ EAR Build Rolled-up

Provide SMS schema details for patch install...

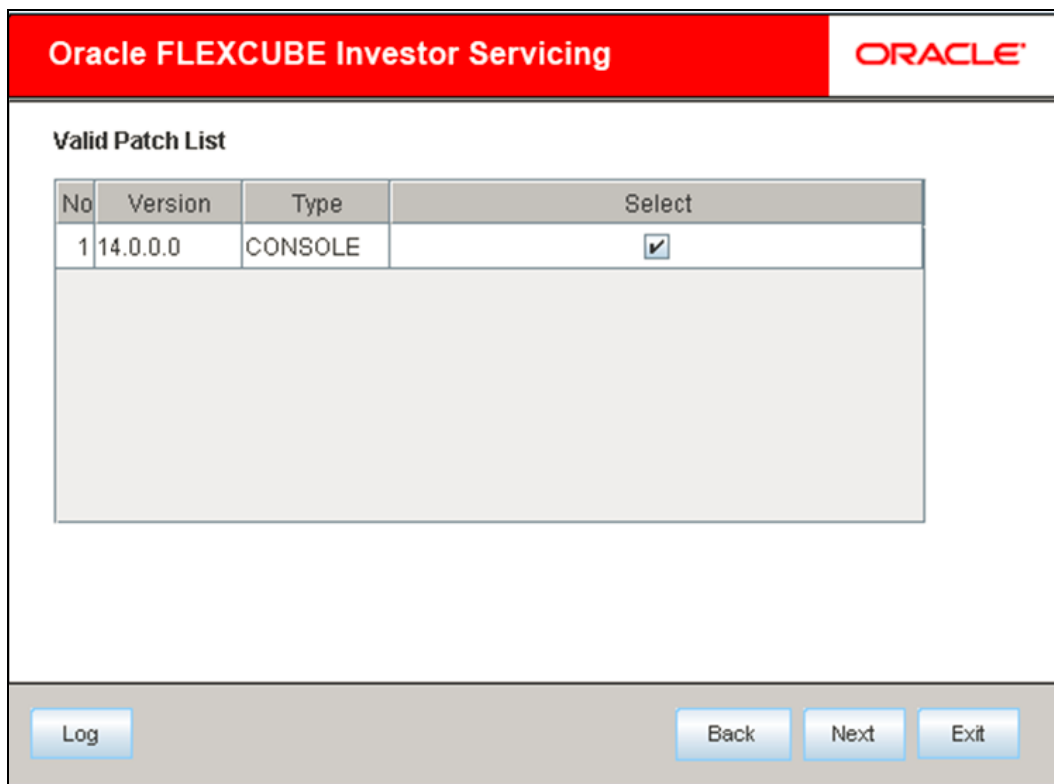
Name	Value
Username	test
Password	••••
Service Name	test
IP Address	10.10.10.10
Port	1234
TNS Connect Descriptor	test

Click 'Test Connection'.

On Successfull connection the below message will be displayed.



Click OK. Click 'Next' to navigate to next page



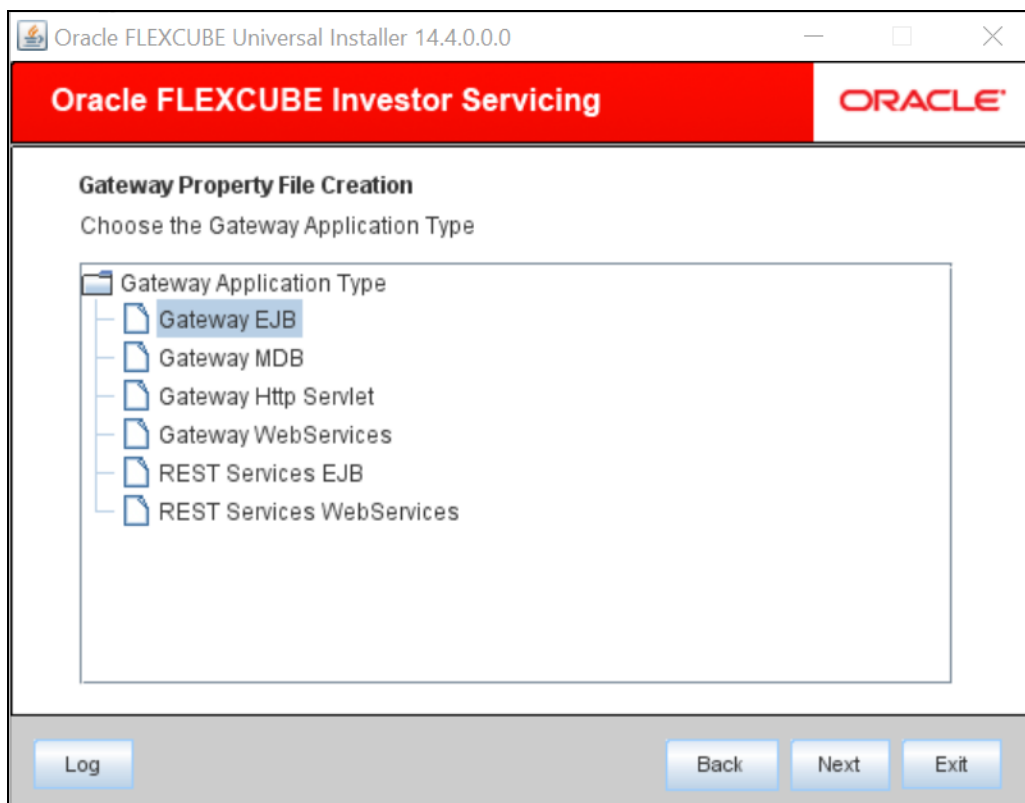
Oracle FLEXCUBE Investor Servicing

Valid Patch List

No	Version	Type	Select
1	14.0.0.0	CONSOLE	<input checked="" type="checkbox"/>

Log Back Next Exit

Click Next.



Oracle FLEXCUBE Universal Installer 14.4.0.0.0

Oracle FLEXCUBE Investor Servicing

Gateway Property File Creation

Choose the Gateway Application Type

- Gateway Application Type
  - Gateway EJB
  - Gateway MDB
  - Gateway Http Servlet
  - Gateway WebServices
  - REST Services EJB
  - REST Services WebServices

Log Back Next Exit

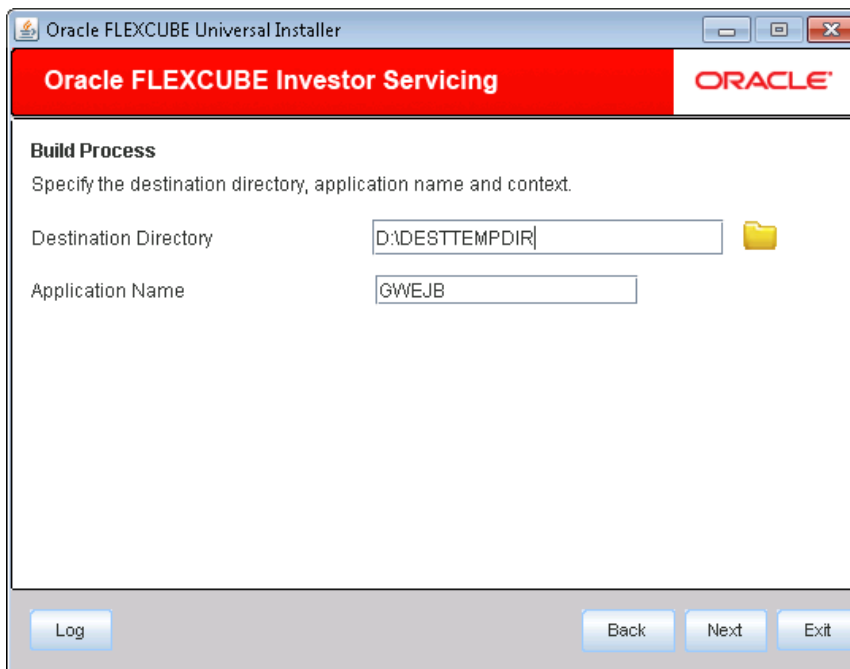
7. Choose 'Gateway EJB'. Click 'Next'.
8. Once you have specified the details, click 'Next' to continue.

The EJB reference name will be '{APPLICATIONNAME}\_GW\_EJB\_Bean' and the JNDI name will be '{APPLICATIONNAME}/ejb/GW\_EJB\_Bean'.

For example, consider that the application name is GWEJB. In that case EJB and JNDI names will be as follows:

- EJB reference name: GWEJB\_GW\_EJB\_Bean
- JNDI name: GWEJB/ejb/GW\_EJB\_Bean

9. Click 'Next'. The following screen is displayed.



The screenshot shows the 'Oracle FLEXCUBE Universal Installer' window. The title bar reads 'Oracle FLEXCUBE Universal Installer'. The window has a red header bar with 'Oracle FLEXCUBE Investor Servicing' on the left and the 'ORACLE' logo on the right. Below the header, the section is titled 'Build Process' with the instruction 'Specify the destination directory, application name and context.' There are two input fields: 'Destination Directory' with the text 'D:\DESTTEMPDIR' and a folder icon to its right, and 'Application Name' with the text 'GWEJB'. At the bottom of the window, there are four buttons: 'Log', 'Back', 'Next', and 'Exit'.

Provide the destination directory path

Provide the required application name. Click Next and the below screen is displayed if the application server is weblogic.

The screenshot shows the 'Oracle FLEXCUBE Investor Servicing' window. The title bar reads 'Oracle FLEXCUBE Universal Installer 14.4.0.0.0'. The header has a red bar with 'Oracle FLEXCUBE Investor Servicing' and the 'ORACLE' logo. The main section is titled 'Build Process' with the instruction 'Specify the Property File path.' Below this, there are two input fields: 'Load Property File' containing 'PropertyFile\Gateway\EJB\GW\_EJB\_Prop.properties' and 'Symmetric key' containing 'oraclefinancialsolutions'. A large text area below these fields contains the placeholder text 'Provide the property file path to be included.' At the bottom, there are four buttons: 'Log', 'Back', 'Next', and 'Exit'.

If the application server selected is websphere, the below screen is displayed.

The screenshot shows the 'Oracle FLEXCUBE Universal Installer 14.4.0.0.0' window for WebSphere configuration. The layout is identical to the WebLogic screen, with the title bar, header, 'Build Process' section, and input fields. However, the 'Load Property File' and 'Symmetric key' fields are currently empty. The 'Log', 'Back', 'Next', and 'Exit' buttons are at the bottom.

10. Specify the following details:

**Centralized Property File**

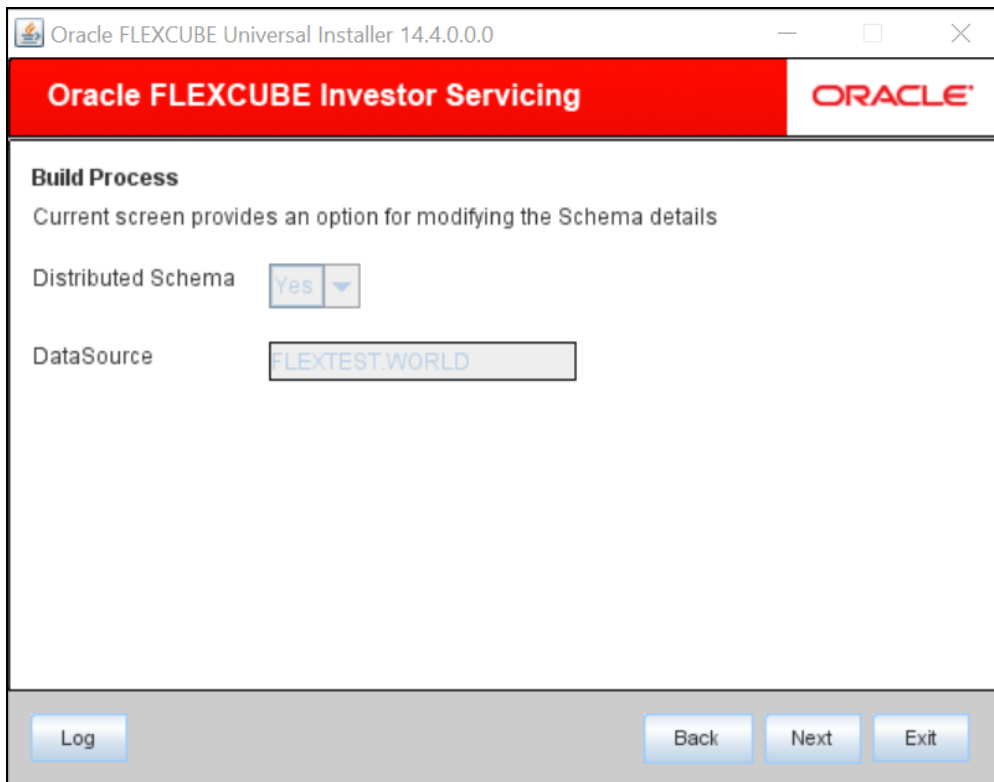
To modify an existing property file, you need to select the exact property file by clicking on the folder icon.

**Symmetric Key**

Specify the symmetric key details.

**Note:** Do not load the Logger.properties file. The installer will load that file automatically based on the property file.

11. Click 'Next'. The following screen is displayed.



Oracle FLEXCUBE Universal Installer 14.4.0.0.0

**Oracle FLEXCUBE Investor Servicing** ORACLE

**Build Process**

Current screen provides an option for modifying the Schema details

Distributed Schema  ▼

DataSource

12. Specify the following details:

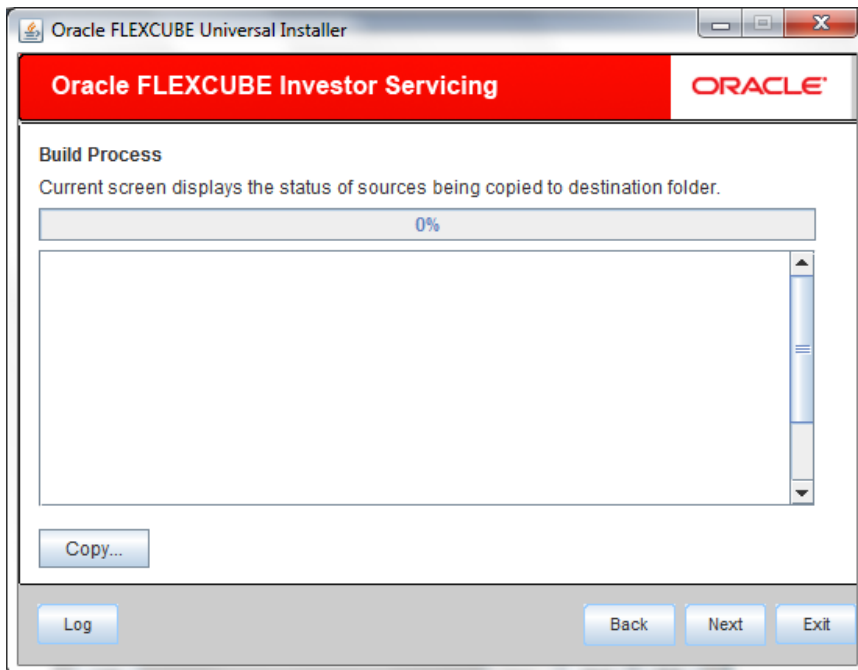
**Distributed Schema**

Specify whether this is a distributed schema or not. This is a read only component. The Distributed schema will be YES only if the property file has distributed schema.

**Data Source**

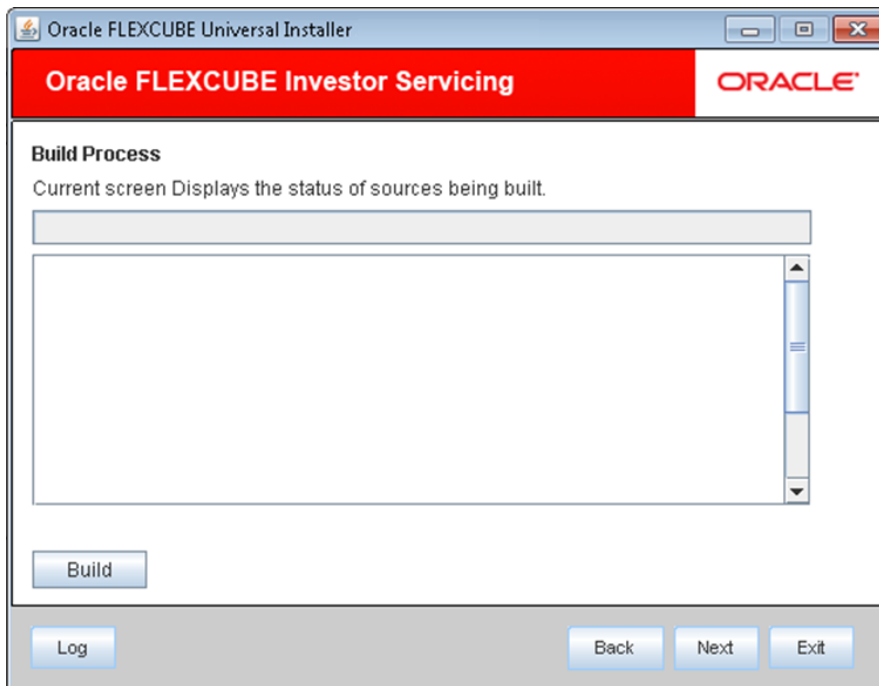
Specify the data source of the schema.

13. Click 'Next'. The following screen is displayed.



14. Click 'Copy' button. The installer copies the files.

15. Click 'Next'. The following screen is displayed.



16. Click 'Build' button to start the build process. The installer builds the source files.

This completes the EAR file generation process. The EAR file will be saved to the destination directory.

---

## 2. Setting up Gateway MDB Application

This section explains the methods of setting up Gateway MDB Application.

### 2.1.1 Prerequisites

You need to create the following gateway MDB property files before building the application:

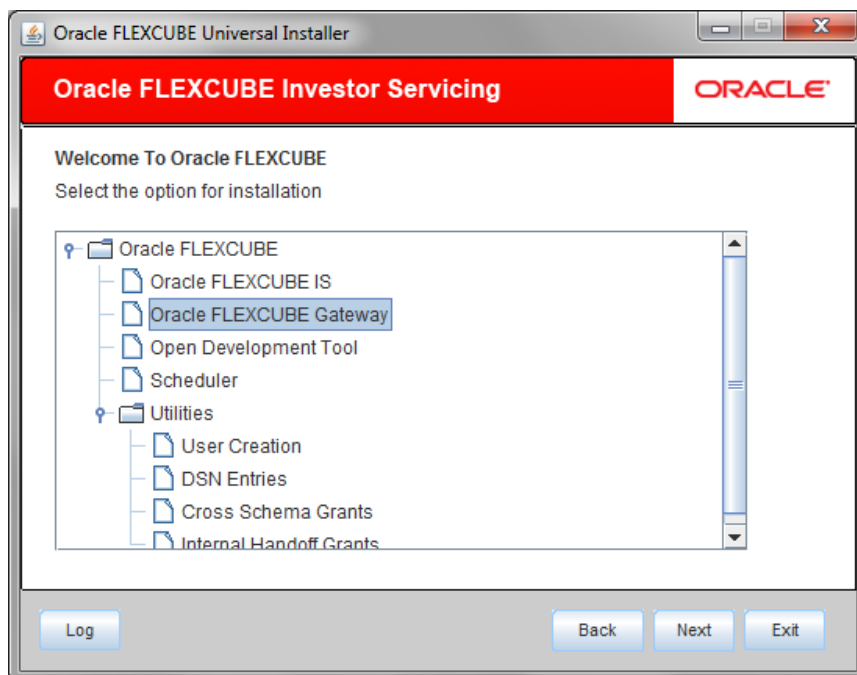
- gw\_mdb\_logger.properties
- GW\_MDB\_Prop.properties

*For details, refer to the section 'Gateway MDB Application' in chapter 'Setting up Property Files' (04-PropertyFile\_Setup).*

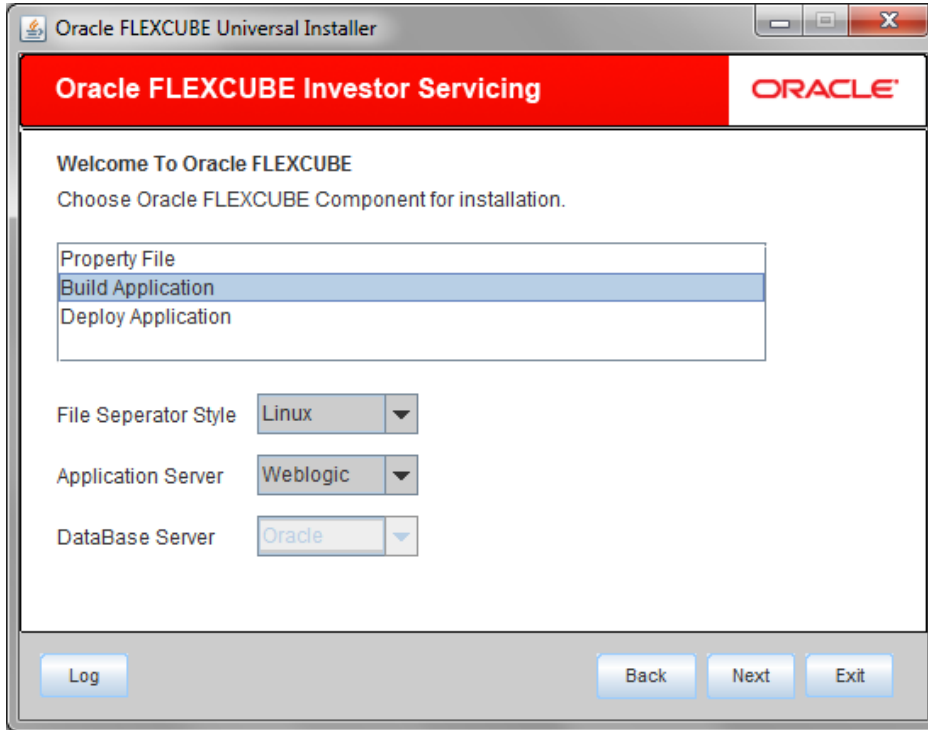
### 2.1.2 Building EAR File

In order to build EAR file for Gateway MDB Application, you need to follow the steps given below:

1. Launch Oracle FLEXCUBE Universal Installer. The welcome screen is displayed.



Choose the Application 'Oracle FLEXCUBE Gateway'. Click 'Next'. The following screen is displayed:



2. Specify the following details:

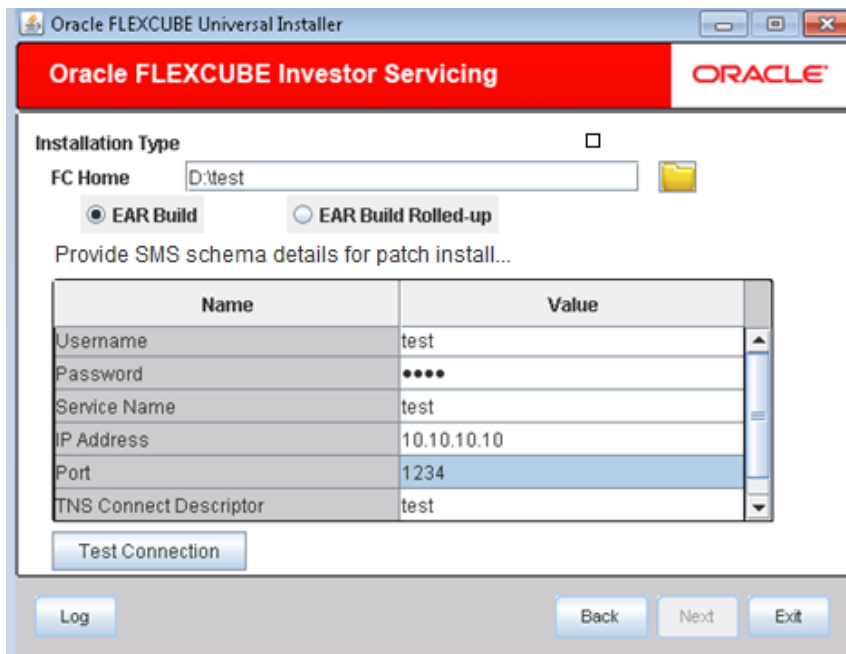
#### **File Separator Style**

Specify the type of file separator (e.g: Linux or Windows). Choose the appropriate one from the drop-down list. You also need to specify the version of the selected operating system.

#### **Application Server**

Specify the application server in which you are creating the property file. Choose the appropriate one from the drop-down list.


Choose 'Build Application'. Click 'Next'. The following screen is displayed



Oracle FLEXCUBE Universal Installer

**Oracle FLEXCUBE Investor Servicing** ORACLE

Installation Type ☐

FC Home  

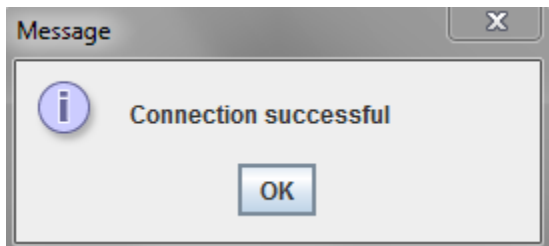
☒ EAR Build ☐ EAR Build Rolled-up

Provide SMS schema details for patch install...

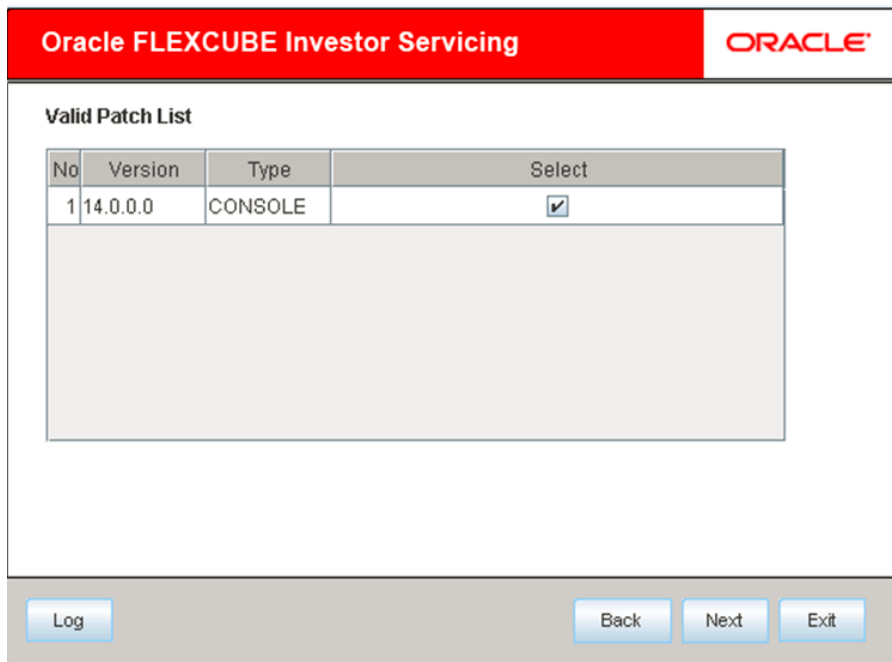
Name	Value
Username	test
Password	••••
Service Name	test
IP Address	10.10.10.10
Port	1234
TNS Connect Descriptor	test

Choose FC home and specify the SMS schema details.

Click 'Test Connection'. On Successful connection the below message will be displayed.

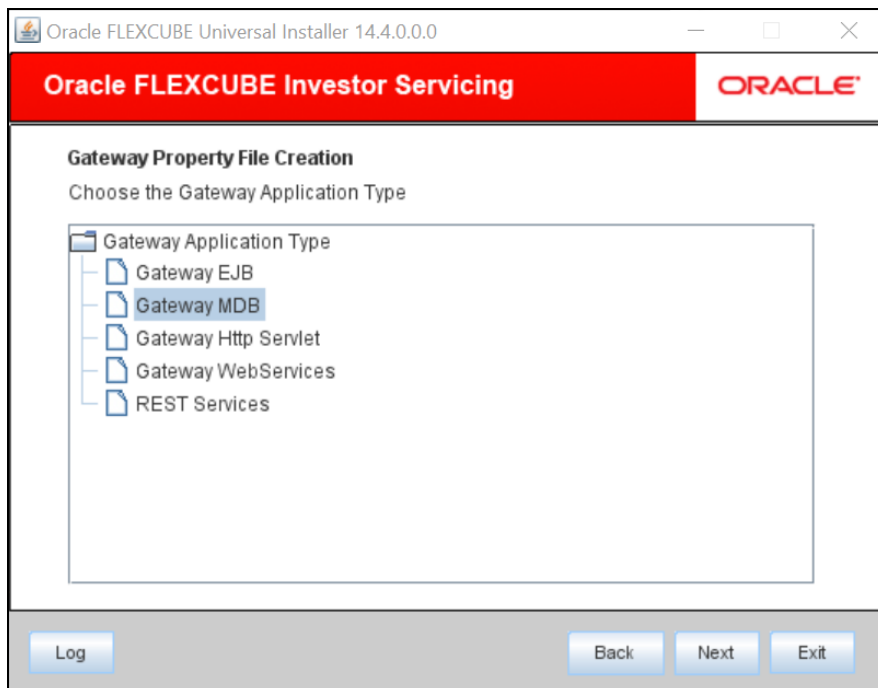


Click OK. Click 'Next' to navigate to next page



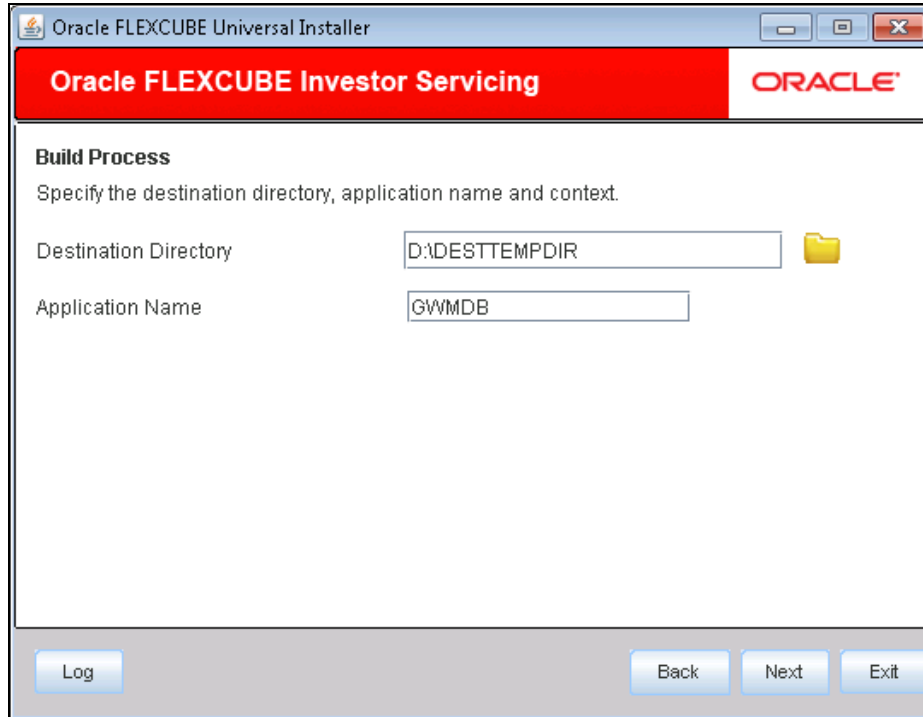
Choose patches from list and click 'Next'

The following screen is displayed:



3. Choose 'Gateway MDB'. Click 'Next'.

4. The following screen is displayed: Click 'Next' the following screen will be displayed.



5. Specify the following details:

**Destination Directory**

Specify the location of the destination directory. The source files from the software will be copied to this location.

Eg: D:\Testing\source\dest

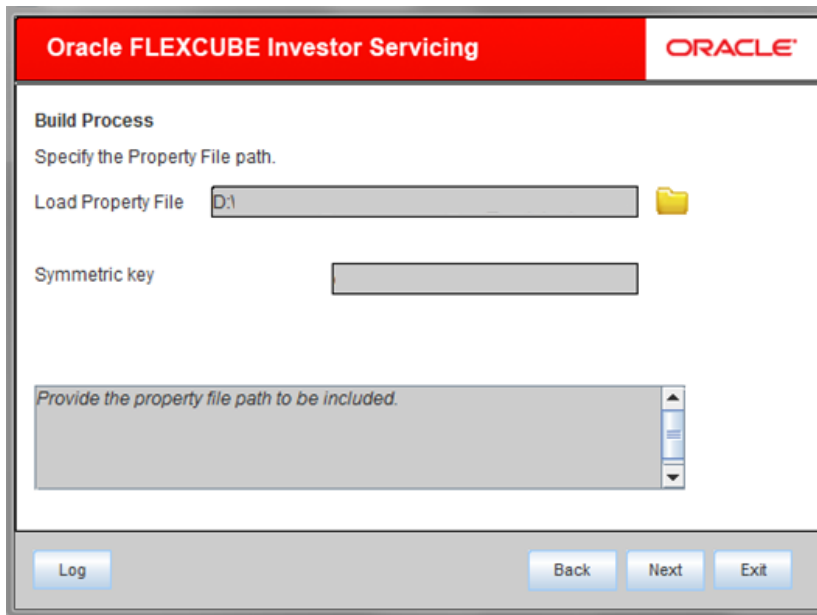
**Application Name**

Specify the EAR name of the application.

The application name should not contain special characters and space. However, you may use ' \_ ' (Underscore).

Eg: GWMDB

6. Once you have specified the details, click 'Next' to continue.



7. Specify the following details:

### Centralized Property File

To modify an existing property file, you need to select the exact property file by clicking on the folder icon.

**Note:** Do not load the Logger.properties file. The installer will load that file automatically based on the property file.

8. Click 'Next'. The following screen is displayed.



9. Specify the following details:

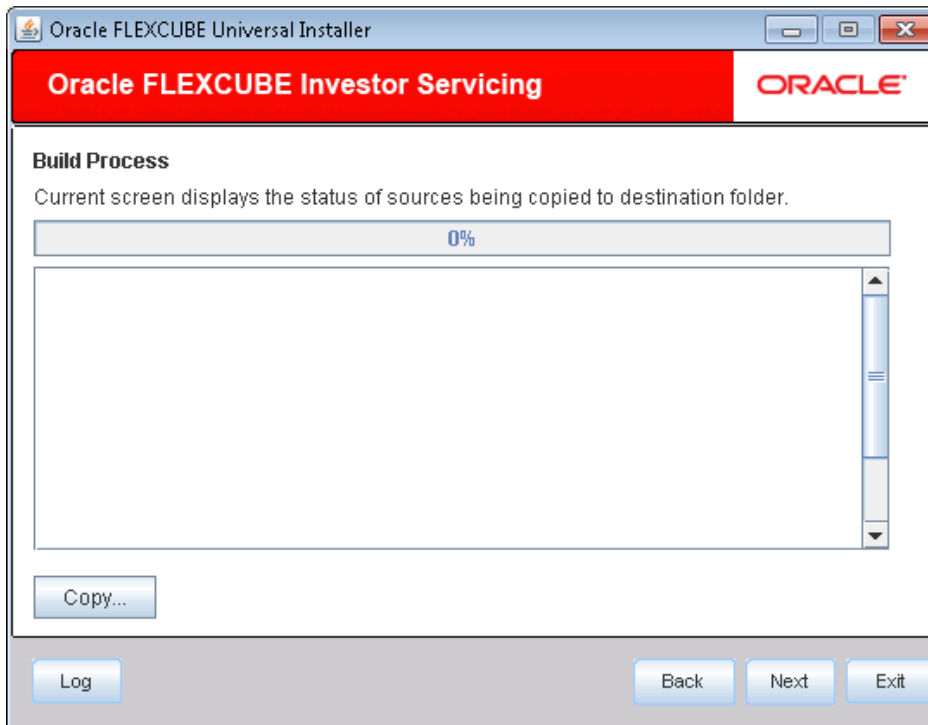
### Distributed Schema

Select Distributed Schema as 'Yes'.

### Data Source

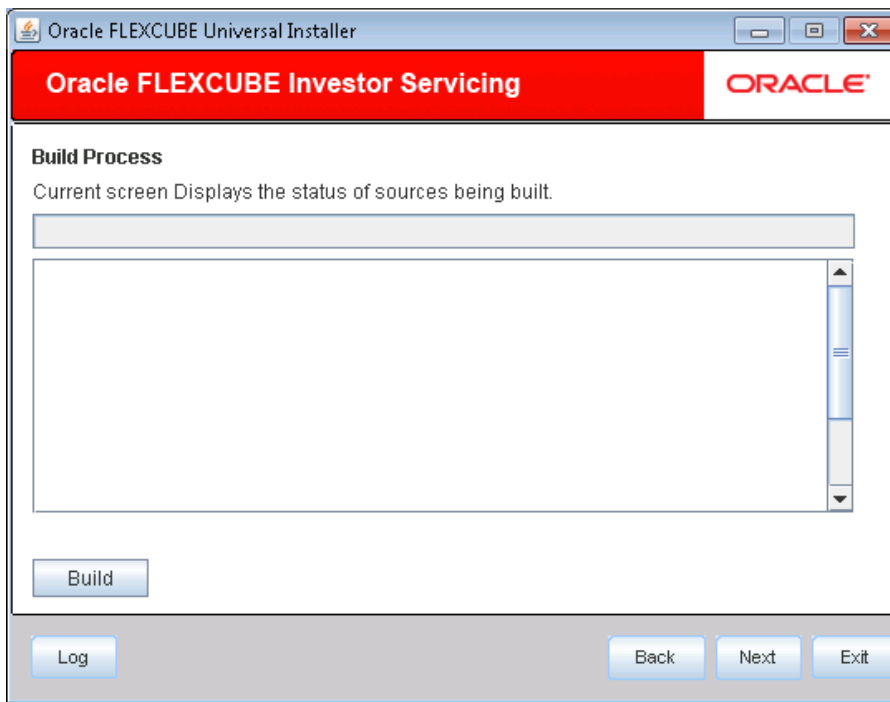
Specify the data source of the schema.

10. Click 'Next'. The following screen is displayed.



11. Click 'Copy' button. The installer copies the files.

12. Click 'Next'. The following screen is displayed.



13. Click 'Build' button to start the build process. The installer builds the source files.

This completes the EAR file generation process. The EAR file will be saved to the destination directory.

## 3. Setting up Gateway HTTP Application

This section explains the methods of setting up Gateway HTTP Application. This is not applicable in EXEC mode of installation.

### 3.1.1 Prerequisites

You need to create the following gateway HTTP property files before building the application:

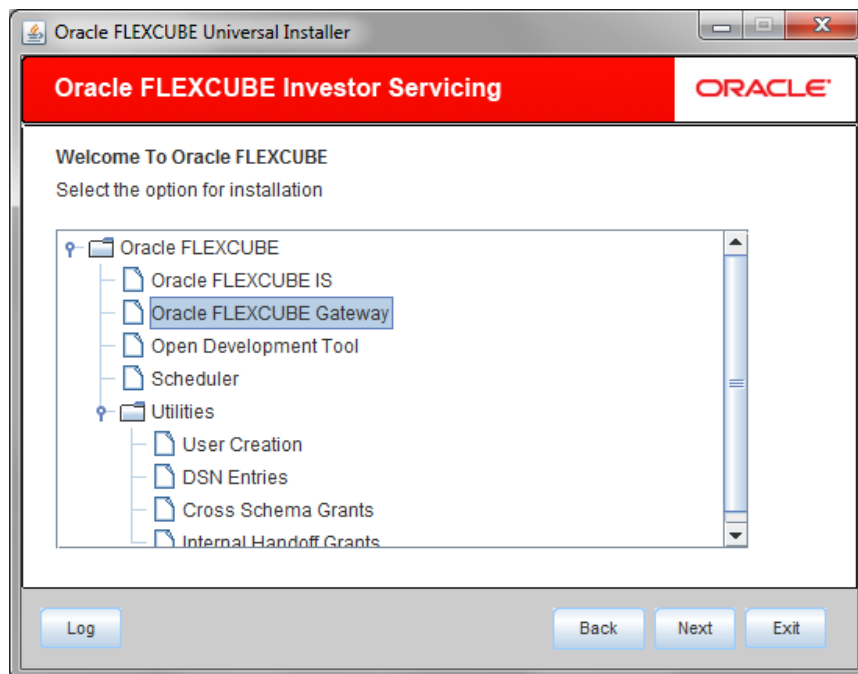
- gw\_http\_logger.properties
- GW\_HTTP\_Prop.properties

*For details, refer to the section 'Gateway HTTP Application' in chapter 'Setting up Property Files' (04-PropertyFile\_Setup).*

### 3.1.2 Building EAR file

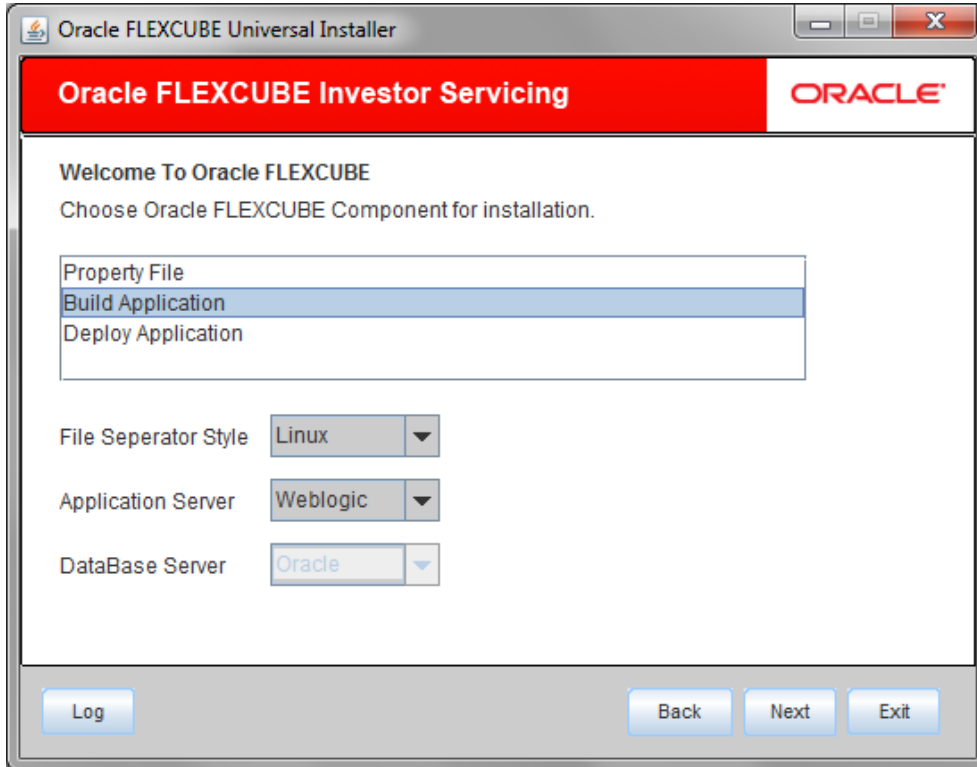
In order to build EAR file for Gateway HTTP Application, you need to follow the steps given below:

1. Launch Oracle FLEXCUBE Universal Installer. The welcome screen is displayed.



2. Choose the Application 'Oracle FLEXCUBE Gateway'. Click 'Next'.

The following screen is displayed:



3. Specify the following details:

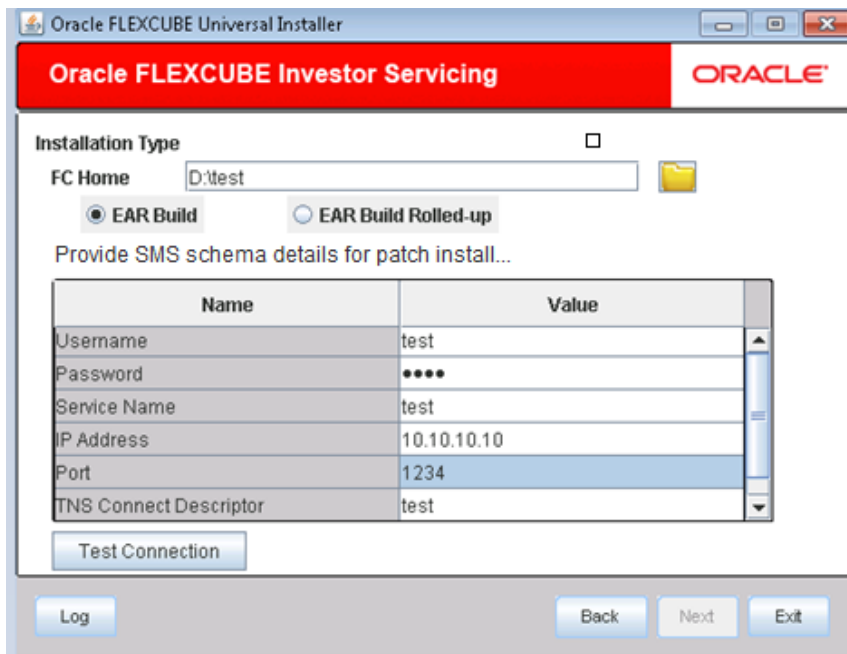
#### **File Separator Style**

Specify the operating system in which you are creating the property file. Choose the appropriate one from the drop-down list.

#### **Application Server**

Specify the application server in which you are creating the property file. Choose the appropriate one from the drop-down list.


Choose 'Build Application'. Click 'Next'. The following screen is displayed:



Oracle FLEXCUBE Universal Installer

**Oracle FLEXCUBE Investor Servicing** ORACLE

Installation Type ☐

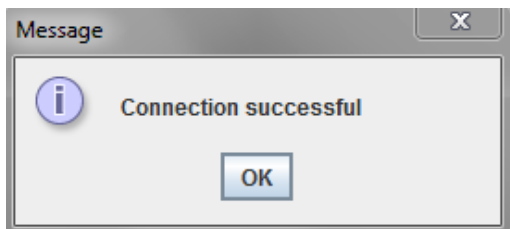
FC Home  

☒ EAR Build ☐ EAR Build Rolled-up

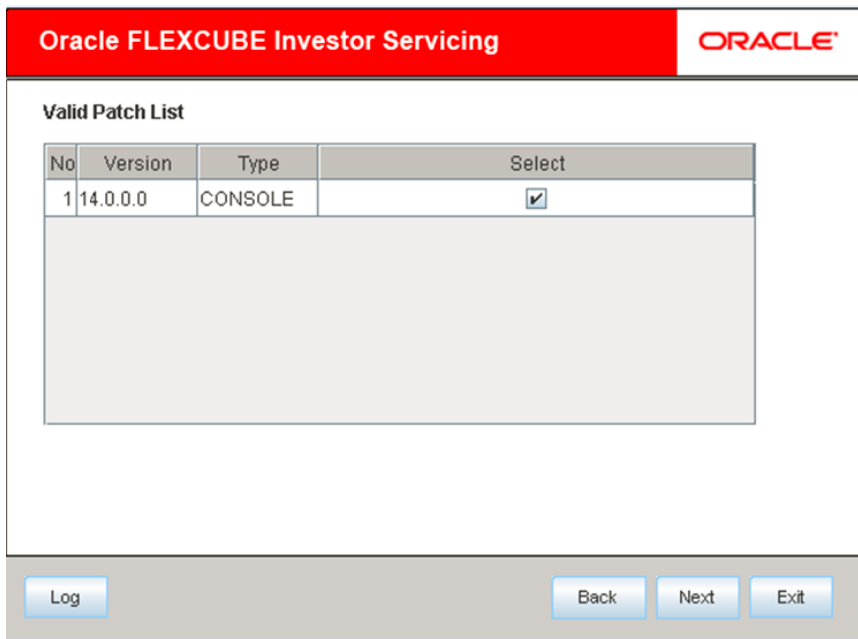
Provide SMS schema details for patch install...

Name	Value
Username	test
Password	••••
Service Name	test
IP Address	10.10.10.10
Port	1234
TNS Connect Descriptor	test

Choose FC home and specify the SMS schema details. Click 'Test Connection'. On Successful connection the below message will be displayed.



Click OK. Click 'Next' to navigate to next page



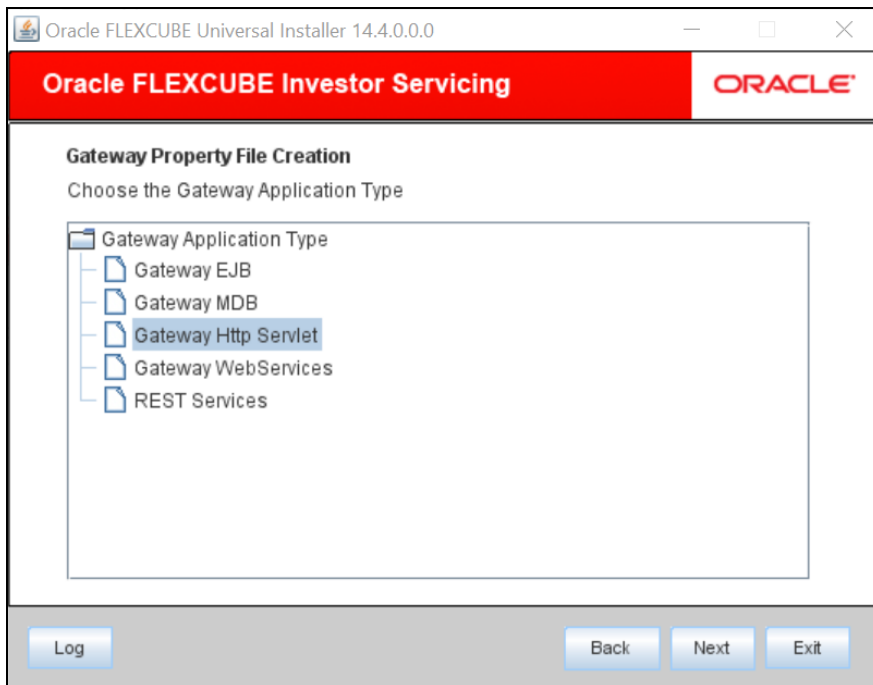
Oracle FLEXCUBE Investor Servicing

Valid Patch List

No	Version	Type	Select
1	14.0.0.0	CONSOLE	<input checked="" type="checkbox"/>

Log Back Next Exit

4. Choose Patches. Click 'Next'. The following screen is displayed:



Oracle FLEXCUBE Universal Installer 14.4.0.0.0

Oracle FLEXCUBE Investor Servicing

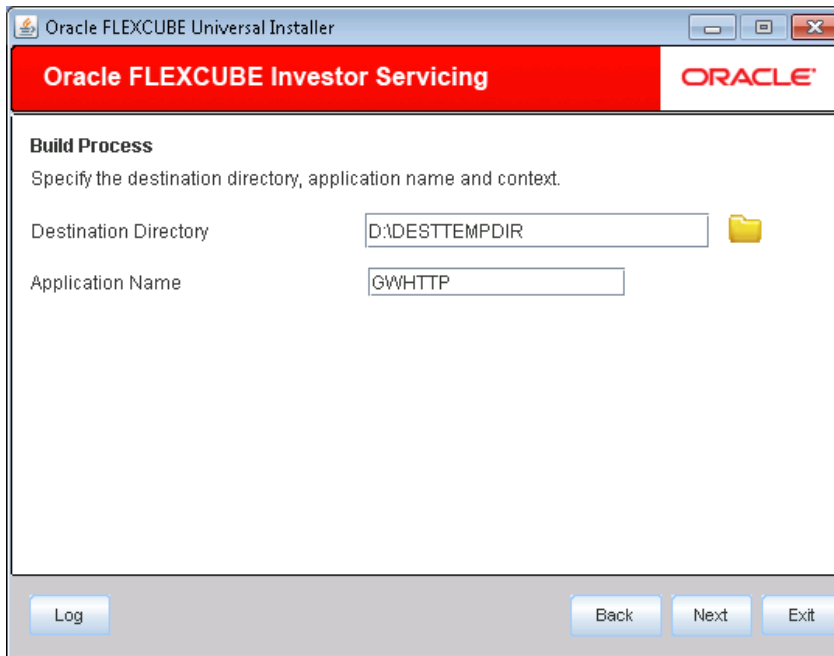
Gateway Property File Creation

Choose the Gateway Application Type

- Gateway Application Type
  - Gateway EJB
  - Gateway MDB
  - Gateway Http Servlet
  - Gateway WebServices
  - REST Services

Log Back Next Exit

5. Choose 'Gateway Http Servlet'. Click 'Next'.



6. Specify the following details:

#### **Destination Directory**

Specify the location of the destination directory. The source files from the software will be copied to this location.

Eg: D:\Testing\source\dest

#### **Application Name**

Specify the EAR name of the application.

The application name should not contain special characters and space. However, you may use '\_' (underscore).

Eg: GWHTTP

#### **Application Context**

Based on the Application type selected, the Installer displays the application context. However, you may modify the default value.

Once you have specified the details, click 'Next' to continue.

7. The following screen is displayed.

The screenshot shows a window titled 'Oracle FLEXCUBE Investor Servicing' with the Oracle logo in the top right. The main area is labeled 'Build Process' and contains the instruction 'Specify the Property File path.' Below this, there is a 'Load Property File' label followed by a text box containing 'D:\' and a folder icon to its right. Underneath is a 'Symmetric key' label followed by an empty text box. At the bottom of the main area is a large text box with the placeholder text 'Provide the property file path to be included.' and a vertical scrollbar. The bottom of the window features a 'Log' button on the left and 'Back', 'Next', and 'Exit' buttons on the right.

8. Specify the following details:

### Centralized Property File

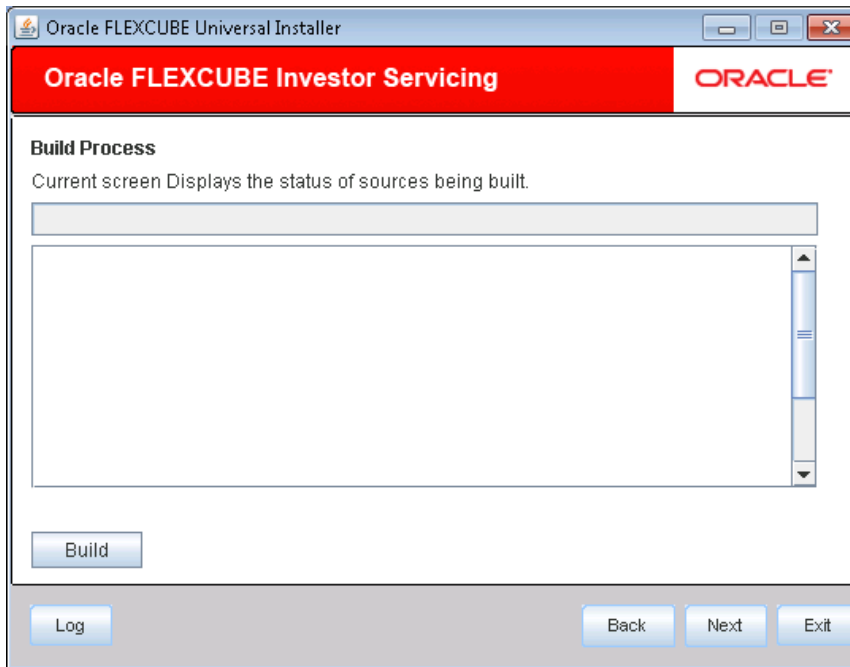
To modify an existing property file, you need to select the exact property file by clicking on the folder icon.

**Note:** Do not load the Logger.properties file. The installer will load that file automatically based on the property file.

9. Click 'Next'. The following screen is displayed.

The screenshot shows a window titled 'Oracle FLEXCUBE Universal Installer' with the Oracle logo in the top right. The main area is labeled 'Build Process' and contains the instruction 'Current screen displays the status of sources being copied to destination folder.' Below this is a progress bar showing '0%'. Underneath the progress bar is a large empty text box with a vertical scrollbar. At the bottom of the main area is a 'Copy...' button. The bottom of the window features a 'Log' button on the left and 'Back', 'Next', and 'Exit' buttons on the right.

10. Click 'Copy' button. The installer copies the files.
11. Click 'Next'. The following screen is displayed.



12. Click 'Build' button to start the build process. The installer builds the source files.

This completes the EAR file generation process. The EAR file will be saved to the destination directory.

---

## 4. Setting up Gateway Web Service Application

This section explains the methods of setting up Gateway Web Service Application.

### 4.1.1 Prerequisites

You need to create the following gateway Web Service property files before building the application:

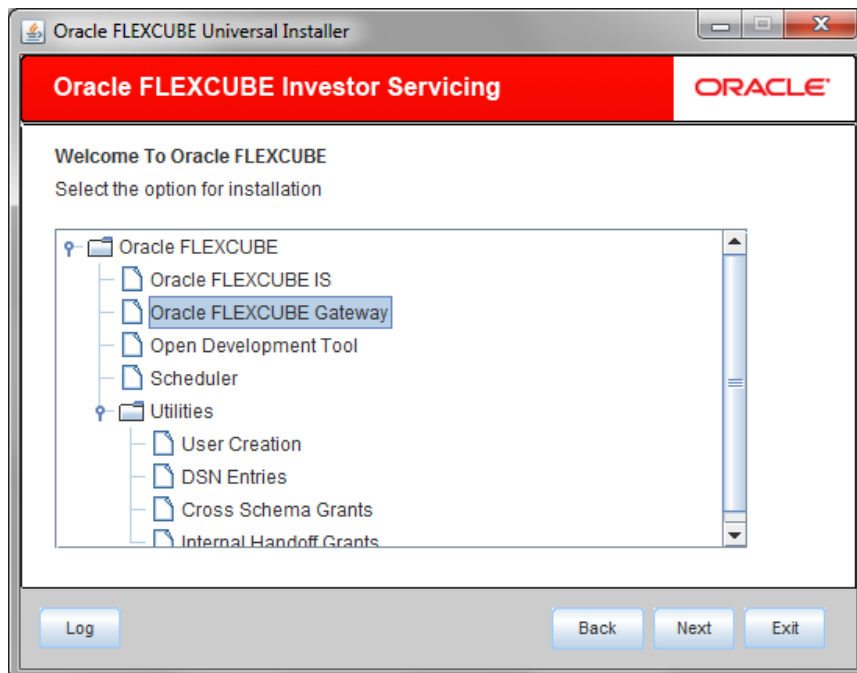
- gw\_ws\_logger.properties
- GW\_WS\_Prop.properties

For details, refer [Gateway Property File Creation](#) document

### 4.1.2 Building EAR File

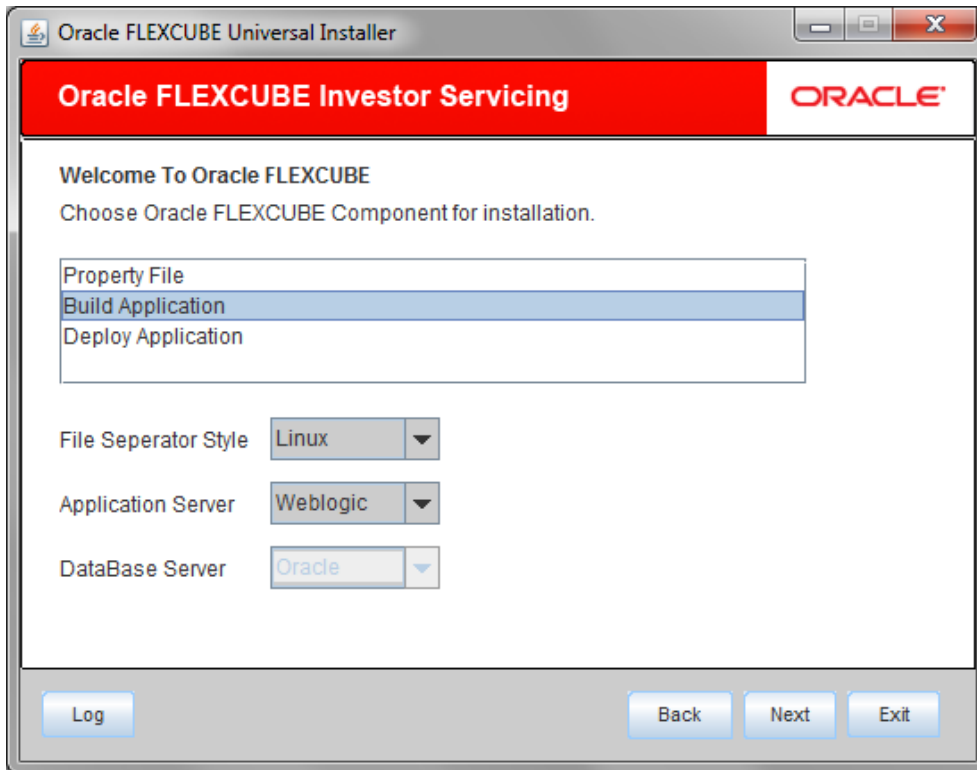
In order to build EAR file for Gateway Web Service Application, you need to follow the steps given below:

1. Launch Oracle FLEXCUBE Universal Installer. The welcome screen is displayed.



2. Choose the Application 'Oracle FLEXCUBE Gateway'. Click 'Next'.

The following screen is displayed:



Specify the following details:

### **Operating System**

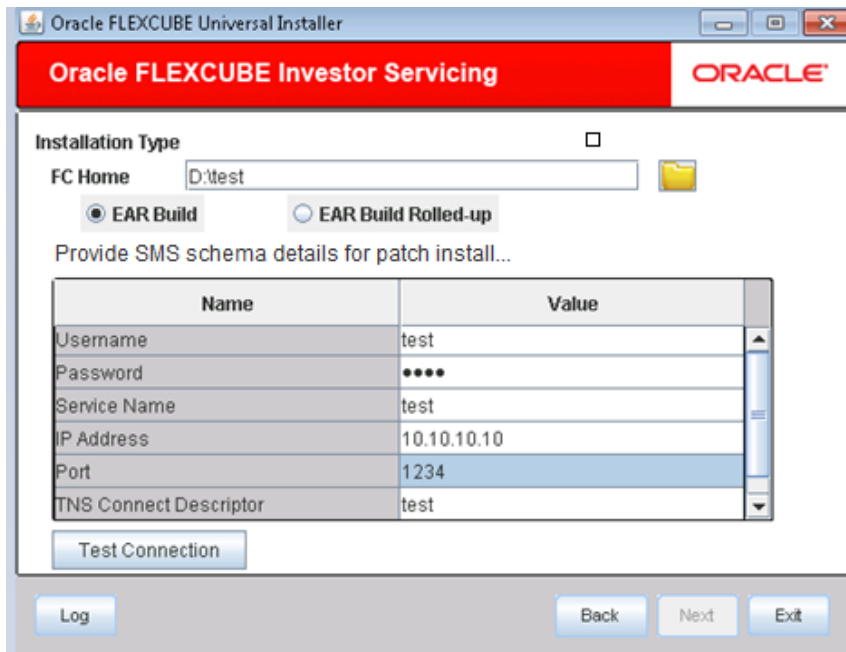
Specify the operating system in which you are creating the property file. Choose the appropriate one from the drop-down list. You

### **Application Server**

Specify the application server in which you are creating the property file. Choose the appropriate one from the drop-down list.

3. Choose 'Build Application'. Click 'Next'.


The following screens are displayed. This is the FC HOME folder that needs to be set. Also, it should point to SMS schema. Those versions less than or equal to the current environment are allowed.



Oracle FLEXCUBE Universal Installer

**Oracle FLEXCUBE Investor Servicing** ORACLE

Installation Type ☐

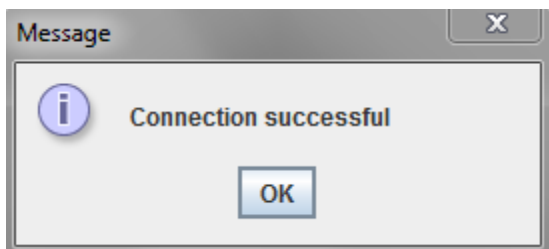
FC Home  

☒ EAR Build ☐ EAR Build Rolled-up

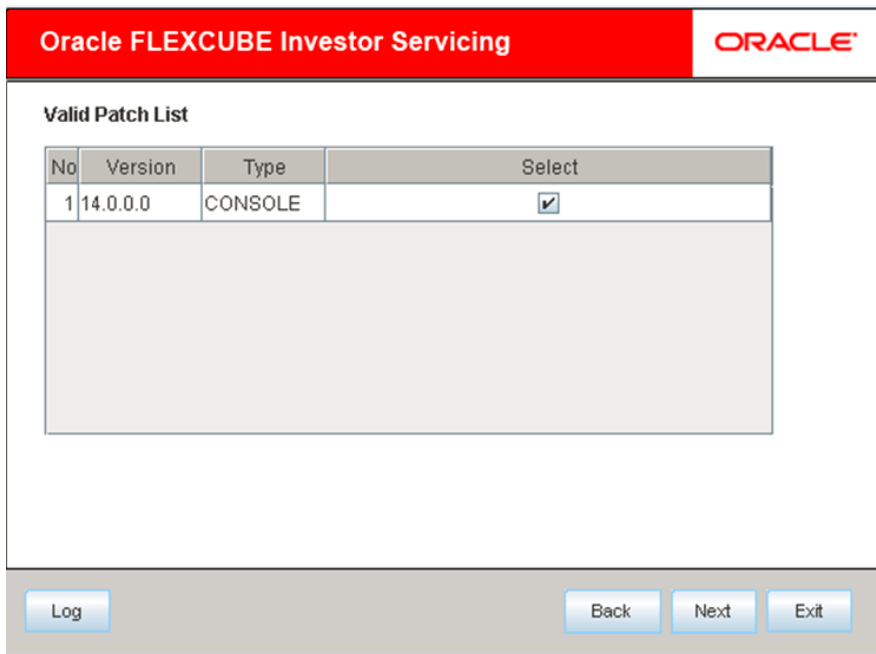
Provide SMS schema details for patch install...

Name	Value
Username	test
Password	••••
Service Name	test
IP Address	10.10.10.10
Port	1234
TNS Connect Descriptor	test

Click 'Test Connection'. On Successful connection the below message will be displayed.



Click OK. Click 'Next' to navigate to next page

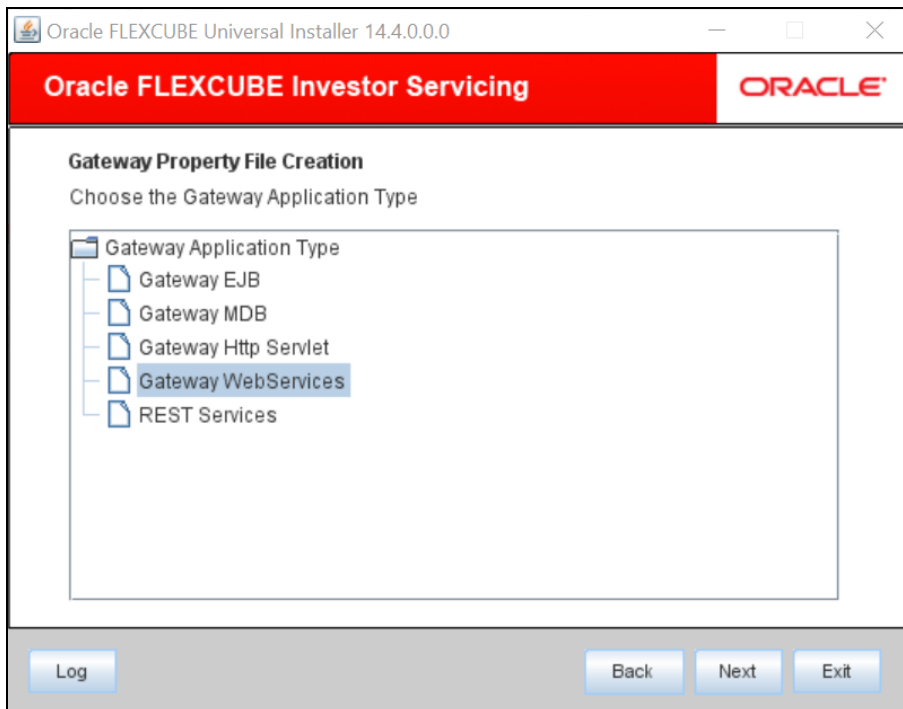


The screen displays the 'Valid Patch List' section. It features a table with the following data:

No	Version	Type	Select
1	14.0.0.0	CONSOLE	<input checked="" type="checkbox"/>

Below the table is a large empty rectangular area. At the bottom of the window, there are four buttons: 'Log', 'Back', 'Next', and 'Exit'.

4. Click 'Next'. The following screen is displayed:



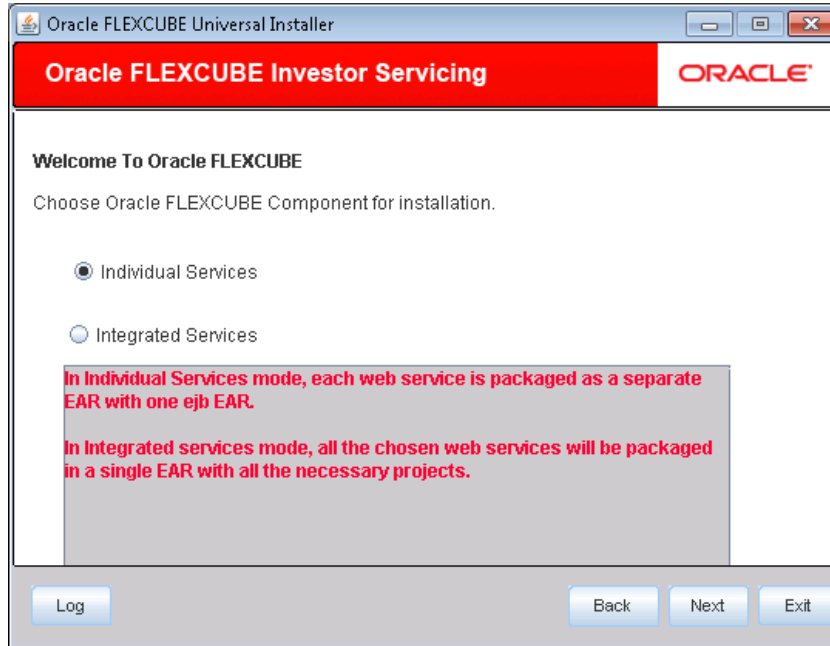
The screen displays the 'Gateway Property File Creation' section. It prompts the user to 'Choose the Gateway Application Type'. A tree view shows the following options:

- Gateway Application Type
  - Gateway EJB
  - Gateway MDB
  - Gateway Http Servlet
  - Gateway WebServices (highlighted)
  - REST Services

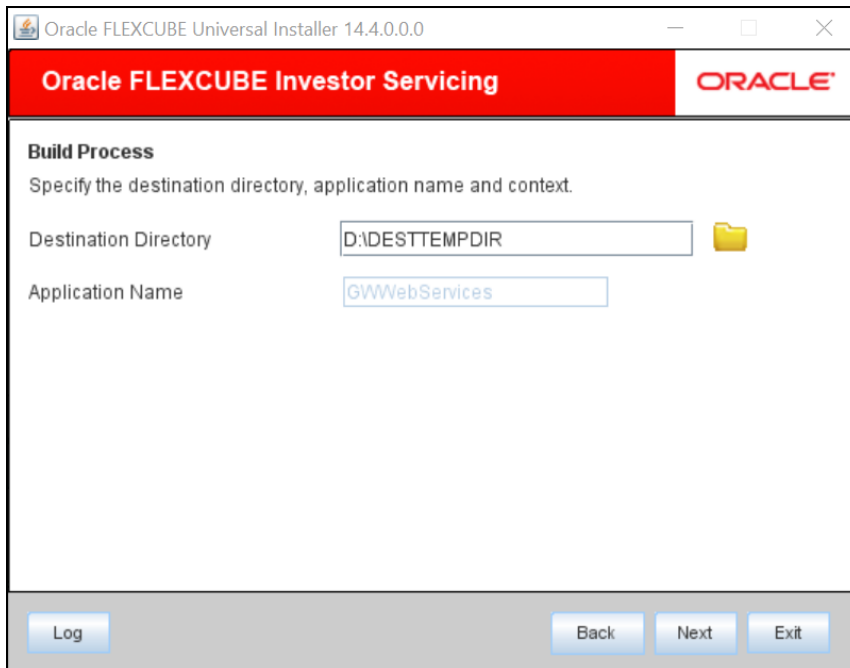
At the bottom of the window, there are four buttons: 'Log', 'Back', 'Next', and 'Exit'.

5. Choose 'Gateway WebServices'. Click 'Next'.

6. The following screen is displayed: Click 'Next' the following screen will be displayed.



7. Click on next, the following screen appears



### Destination Directory

Provide Destination Directory

## Application Name

If chosen Individual mode of web services in previous screen then this field is disabled and the name of the web service generated would be the name of the service

Else if selected Integrated, then this field is enabled where user can input required name

## Recompilation Required

Check this box if WSDL, XSD files have been modified

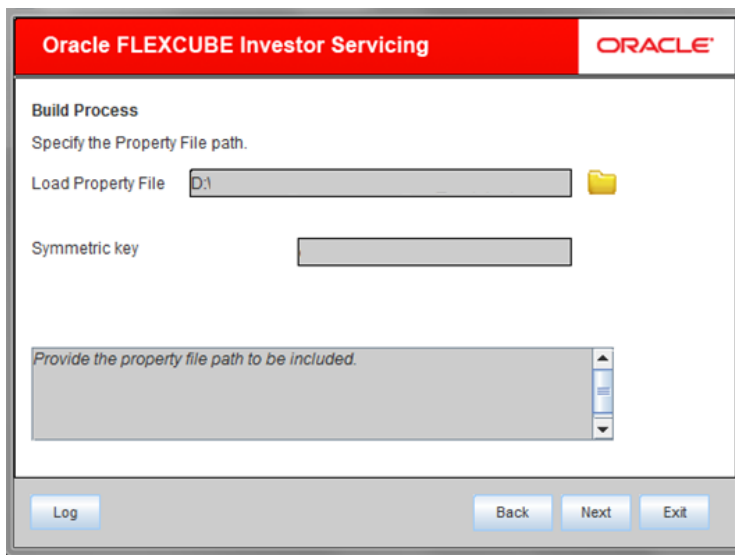
**Note:** In case of XSD or WSDL web services should be recompiled,

Copy the modified service sources into the service source path (<services\_source\_path>). Remove the unmodified services and proceed.

In case of FCIS the services sourcepath is 'Source\_Dir\GatewayServices\Services-Operations\XSD\<Module>\Gateway\Services'.

8. Once you have specified the details, click 'Next' to continue.

9. The following screen is displayed.



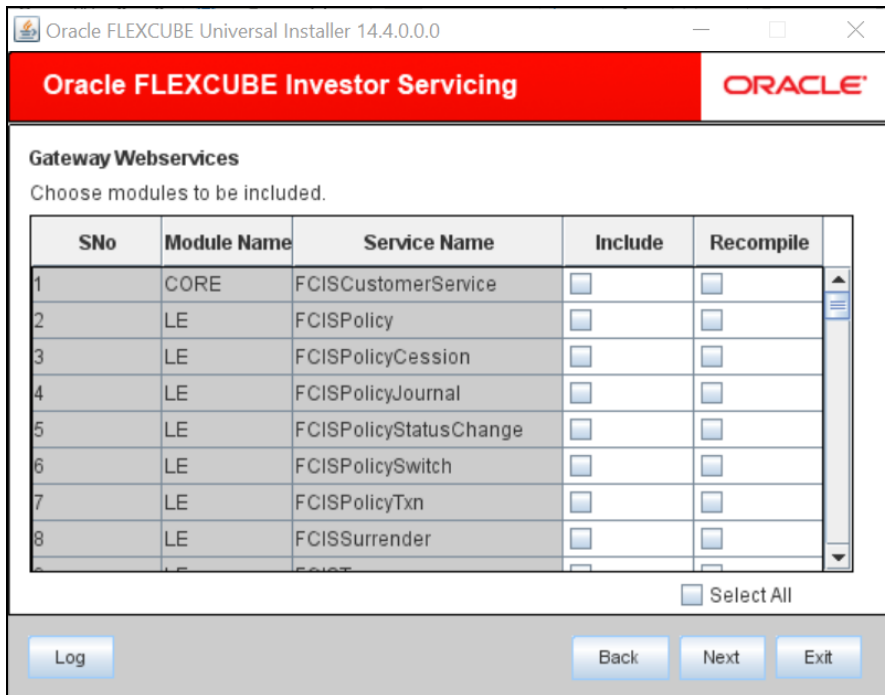
10. Specify the following details:

## Centralized Property File

To modify an existing property file, you need to select the exact property file by clicking on the folder icon.

**Note:** Do not load the Logger.properties file. The installer will load that file automatically based on the property file.

11. Click 'Next'. The following screen is displayed.



Oracle FLEXCUBE Investor Servicing

**Gateway Webservices**  
Choose modules to be included.

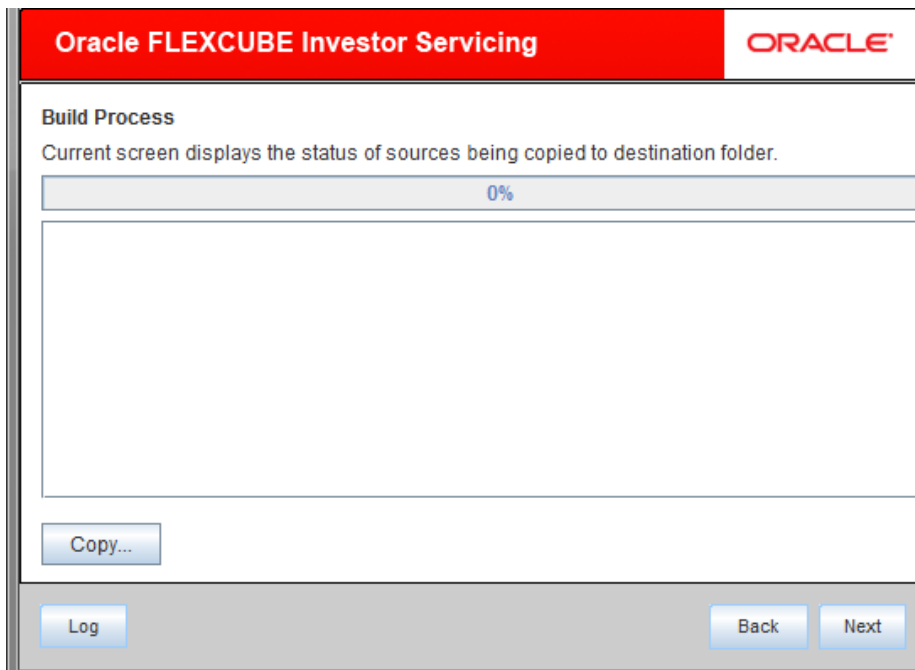
SNo	Module Name	Service Name	Include	Recompile
1	CORE	FCISCustomerService	<input type="checkbox"/>	<input type="checkbox"/>
2	LE	FCISPolicy	<input type="checkbox"/>	<input type="checkbox"/>
3	LE	FCISPolicyCession	<input type="checkbox"/>	<input type="checkbox"/>
4	LE	FCISPolicyJournal	<input type="checkbox"/>	<input type="checkbox"/>
5	LE	FCISPolicyStatusChange	<input type="checkbox"/>	<input type="checkbox"/>
6	LE	FCISPolicySwitch	<input type="checkbox"/>	<input type="checkbox"/>
7	LE	FCISPolicyTxn	<input type="checkbox"/>	<input type="checkbox"/>
8	LE	FCISSurrender	<input type="checkbox"/>	<input type="checkbox"/>

☐ Select All

Log Back Next Exit

12. Select the services to be included for Web Services.

13. Click 'Next'. The following screen is displayed.



Oracle FLEXCUBE Investor Servicing

**Build Process**  
Current screen displays the status of sources being copied to destination folder.

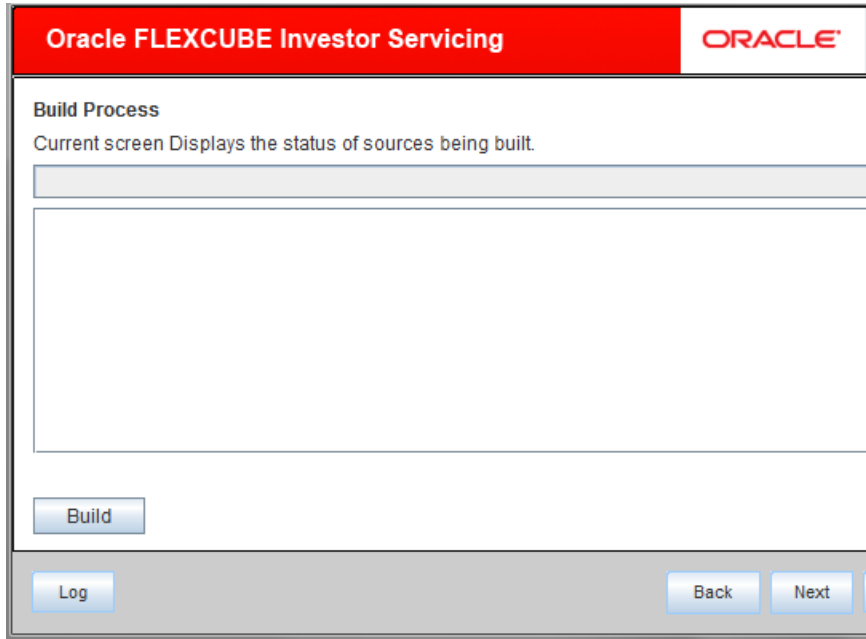
0%

Copy...

Log Back Next

14. Click 'Copy' button. The installer copies the files.

15. Click 'Next'. The following screen is displayed.



16. Click 'Build' button to start the build process. The installer builds the source files.

This completes the EAR file generation process. The EAR file will be saved to the destination directory.

---

## 5. Post Building Activity

### 5.1 Introduction

This section introduces you to the activities to be carried out after setting up the gateway applications.

#### 5.1.1 Gateway Configuration

Gateway application looks for the required files inside the 'XSD Path' and 'Logger File' provided at the time of Gateway Property creation.

Refer [Gateway Property File Creation](#) document for details.

You need to maintain the following files in XSD Path and Logger Path:

Path	Files
Logger Path	Logger path should contain the gateway property files generated by the Installer.  For example, for Gateway EJB application, the installer generates the files 'gw_ejb_logger.properties' and 'GW_EJB_Prop.properties'. While creating the property file if you specify the 'Logger Path' as 'D:/GW_EJB/config/ gw_ejb_logger.properties', then you need to place both the files 'gw_ejb_logger.properties' and 'GW_EJB_Prop.properties' inside the folder 'D:/GW_EJB/config/'.
XSD Path	XSD Path should contain the common XSD files as well as the gateway module specific XSD files which are related to gateway operation.  Copy the common XSD files from 'MAIN\Core\Gateway\COMMON' to the XSD Path.  Copy the module specific XSD files from 'MAIN/<module>/ Gateway/XSD' to the XSD Path.

ServerState.xml should be copied in the XSD Directory from  
Gateway\Utilities\POSS\ServerState.xml

#### 5.1.2 Deployment Using Oracle WebLogic Application Server

For details on the manual deployment using Oracle WebLogic Application Server, refer to the chapter [Gateway Application Deployment Weblogic](#)

#### 5.1.3 Deployment Using IBM WebSphere Application Server

For details on the manual deployment using IBM WebSphere Application Server, refer to the chapter [Gateway Application Deployment Websphere](#).



Gateway Application Setup  
[July] [2020]  
Version 14.4.0.0.0

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/](http://www.oracle.com/financialservices/)

Copyright © [2007], [2020], Oracle and/or its affiliates.

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 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" or "commercial computer software documentation" 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 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.

