

WebServices Installation Guide

Oracle Financial Services Lending and Leasing

Release 14.11.0.0.0

Part No. F40454-01

May 2021

WebServices Installation Guide
May 2021
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

<https://www.oracle.com/industries/financial-services/index.html>

Copyright © 2007, 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.

Send Us Your Comments

Oracle Financial Services Lending and Leasing User Documentation

Oracle welcomes customers' comments and suggestions on the quality and usefulness of this document. Your feedback is important, and helps us to best meet your needs as a user of our products. For example:

- Are the implementation steps correct and complete?
- Did you understand the context of the procedures?
- Did you find any errors in the information?
- Does the structure of the information help you with your tasks?
- Do you need different information or graphics? If so, where, and in what format?
- Are the examples correct? Do you need more examples?

If you find any errors or have any other suggestions for improvement, then please tell us your name, the name of the company who has licensed our products, the title and part number of the documentation and the chapter, section, and page number (if available).

Note: Before sending us your comments, you might like to check that you have the latest version of the document and if any concerns are already addressed. To do this, access the Oracle Documentation available at www.docs.oracle.com which contains the most current Documentation Library plus all documents revised or released recently.

Send your comments using the electronic mail address: financialservices_ww@oracle.com

Please give your name, address, electronic mail address, and telephone number (optional).

If you need assistance with Oracle software, then please contact your support representative or Oracle Support Services.

If you require training or instruction in using Oracle software, then please contact your Oracle local office and inquire about our Oracle University offerings. A list of Oracle offices is available on our Web site at www.oracle.com.

Table of Contents

1. Preface	1-1
1.1 Prerequisites.....	1-1
1.2 Audience.....	1-1
1.3 Conventions Used	1-1
2. Installing WebServices Database Objects	2-1
3. Deploying Application Interface WebServices	3-1
3.1 Creating Data Sources for WebServices	3-1
3.2 Working with SSL	3-7
3.2.1 Steps to Import Certificates to keystore.....	3-7
3.2.2 Enable SSL Debugging	3-9
3.2.3 Connecting to service supporting only TLS protocol	3-9
3.3 Create RouteOne Credentials and System Policies.....	3-9
3.4 Deploying Webservices	3-11
3.4.1 Deployment of WebServices in Enterprise Manager.....	3-11
4. Configuring Weblogic Policy on WebServices	4-1
5. Verifying Successful Installation	5-1
5.1 Steps to Verify Successful Webservices deployment:.....	5-1
5.2 Steps to Verify Successful Interface (Route One) deployment:	5-1
6. Enable Logging	6-1
6.1 Enabling WebService Log	6-1
6.2 Enabling SQL Log for WebServices Component	6-1
7. Configuring RESTful WebService	7-1
7.1 Create Data Sources for RESTful WebService	7-1
7.2 OAuth Implementation.....	7-6
7.3 Deploy RESTful WebService.....	7-6
7.4 Deploy RESTful Credit Bureau WebService	7-11
7.4.1 Create Credentials and System Policies for Credit Bureau Interface.....	7-15
8. Appendix - Configuration parameters	A-1

1. Preface

This document contains notes and installation steps needed to install WebServices. Oracle Financial Services Lending and Leasing relies on several pieces of Oracle software in order to run and this document is in no way meant to replace Oracle documentation supplied with the WebServices product or available via Oracle technical support. The purpose of this document is only meant to supplement the Oracle documentation and to provide Oracle Financial Services Lending and Leasing specific installation instructions.

For recommendations on security configuration, refer Security Configuration Guide.

It is assumed that anyone installing Oracle Financial Services Lending and Leasing will have a thorough knowledge and understanding of WebServices.

This guide covers the following processes.

- [Installing WebServices Database Objects](#)
- [Deploying Application Interface WebServices](#)
- [Configuring Weblogic Policy on WebServices](#)
- [Verifying Successful Installation](#)
- [Enable Logging](#)
- [Configuring RESTful WebService](#)
- [Appendix - Configuration parameters](#)

1.1 Prerequisites

1. Download and Install the Oracle Fusion Middleware 12c Version 12.2.1.4.0 (Fusion Middleware Infrastructure installer) from <http://www.oracle.com/technetwork/middleware/fusion-middleware/downloads/index.html#close>. They are also available from the following sources:
 - Oracle Software Delivery Cloud (<http://edelivery.oracle.com/>)
 - Oracle Technology Network (OTN)
2. It is assumed that the Oracle Financial Services Lending and Leasing DB is installed and configured, before running the WebServices installer.

1.2 Audience

This document is intended for system administrators or application developers who are installing Oracle Financial Services Lending and Leasing Application.

1.3 Conventions Used

Term	Refers to
Application	Oracle Financial Services Lending and Leasing

2. Installing WebServices Database Objects

Download and unzip the WebServices database (ofslxwsdb.zip) to a staging folder.

Run `$./instalofslxwsdb.sh`

```
-bash-4.1$ ./instalofslxwsdb.sh
```

This installer adds the required tables and packages to the application database.

```
Oracle Financial Services Lending and Leasing Webservices DB Installer
```

```
Important Note:
```

```
-----  
It is expected to have the OFSLL Application DB been installed and configured  
before running this installer.
```

```
This installer adds the required tables and packages to the same OFSLL DB schema.
```

```
Continue? [y/n]: y
```

Enter 'y' when prompted to continue.

```
Oracle Financial Services Lending and Leasing Webservices DB Installer
```

```
Important Note:
```

```
-----  
It is expected to have the OFSLL Application DB been installed and configured  
before running this installer.
```

```
This installer adds the required tables and packages to the same OFSLL DB schema.
```

```
Continue? [y/n]: y
```

```
Enter the Oracle Financial Services Lending and Leasing  
Home Path? (usually /home/ofsl): /scratch/work_area/DEV/OFSLLREL
```

```
OFSLLHOME=/scratch/work_area/DEV/OFSLLREL
```

```
Okay? [y/n]: y
```

Script Prompts	Description and Action Required
Oracle Financial Services Lending and Leasing Home Path	Enter the path to the home directory. This is referred to as \$OFSLL_HOME. Enter 'y' when prompted for.

Oracle Financial Services Lending and Leasing Webservices DB Installer

Important Note:

 It is expected to have the OFSL Application DB been installed and configured before running this installer.

This installer adds the required tables and packages to the same OFSL DB schema.

Continue? [y/n]: y

Enter the Oracle Financial Services Lending and Leasing Home Path? (usually /home/ofsl): /scratch/work_area/DEV/OFSLREL

OFSLHOME=/scratch/work_area/DEV/OFSLREL
 Okay? [y/n]: y

Enter the Oracle DB Home Path? /scratch/app/db12c/product/12.1.0/dbhome_1

ORAHOME=/scratch/app/db12c/product/12.1.0/dbhome_1
 Okay? [y/n]: y

Enter the Oracle SID? ORCL
 INSTANCENAME=ORCL
 Okay? [y/n]: y

Script Prompts	Description and Action Required
Oracle DB Home Path	Enter the path to the Oracle DB home directory. This is referred to as \$ORACLE_HOME. Enter 'y' when prompted for.
Oracle SID	Enter the Name of Oracle Instance. Enter 'y' when prompted for.

Important Note:

 Here is a list of CRITICAL environment variables and their settings:

```
PATH=/usr/lib64/qt-3.3/bin:/usr/kerberos/sbin:/usr/kerberos/bin:/bin:/usr/bin:/usr/dev_infra/platform/bin:/usr/dev_infra/generic/bin:
11R6/bin:/usr/local/ade/bin:/scratch/app/db12c/product/12.1.0/dbhome_1/bin
ORACLE_HOME=/scratch/app/db12c/product/12.1.0/dbhome_1
ORACLE_SID=ORCL
OFSL_HOME=/scratch/work_area/DEV/OFSLREL
```

With the above environment, you should be able start SQLPlus and connect to the database. If you cannot, correct the environment and restart the script to continue.

Continue? [y/n]: y

The script lists and sets the CRITICAL environment variables

```
.....  
Oracle Financial Services Lending and Leasing Webservices Database Object Installation
```

The following items are available for installation:

- 1. database types (512)
- 2. database tables (47)
- 3. database views (295)
- 4. database trigger (4)
- 5. database package specs (412)
- 6. database package bodies (420)
- 7. database indexes (30)
- 8. System Seed Data (0)

```
Continue with Installation? [y/n] : █
```

Enter 'y' when prompted to continue. A list of items available for installation are listed. Enter 'y' when prompted to 'Continue with Installation'.

```
Oracle Financial Services Lending and Leasing Webservices Database Object Installation  
The following items are available for installation:  
  
1. database types (173)  
2. database tables (47)  
3. database views (157)  
4. database trigger (4)  
5. database package specs (254)  
6. database package bodies (262)  
7. database indexes (30)  
8. System Seed Data (0)  
  
Continue with Installation? [y/n] : y  
  
Log files will be located in /scratch/work_area/DEV/OFSLREL/logs/ofsl_xws_install_logs  
Press Enter to Continue...  
  
Enter the Oracle userid (schema name) that will own the Oracle Financial Services Lending and Leasing  
objects? (usually ofslprd): OFSLREL  
  
Enter the password for this userid: █
```

Sets the path for the location of log files. Press 'Enter' to continue.

Script Prompts	Description and Action Required
Oracle User ID that will own the Oracle Financial Services Lending and Leasing objects	Valid User ID
Password for this User ID	Valid Password

The script installs the objects.

```
PL/SQL procedure successfully completed.
```

```
PL/SQL procedure successfully completed.
```

```
PL/SQL procedure successfully completed.
```

```
PL/SQL procedure successfully completed.
```

```
PL/SQL procedure successfully completed.
```

```
Commit complete.
```

```
Recompiling Invalid Objects...
```

```
Oracle Financial Services Lending and Leasing Webservices DB Object Installation Com
```

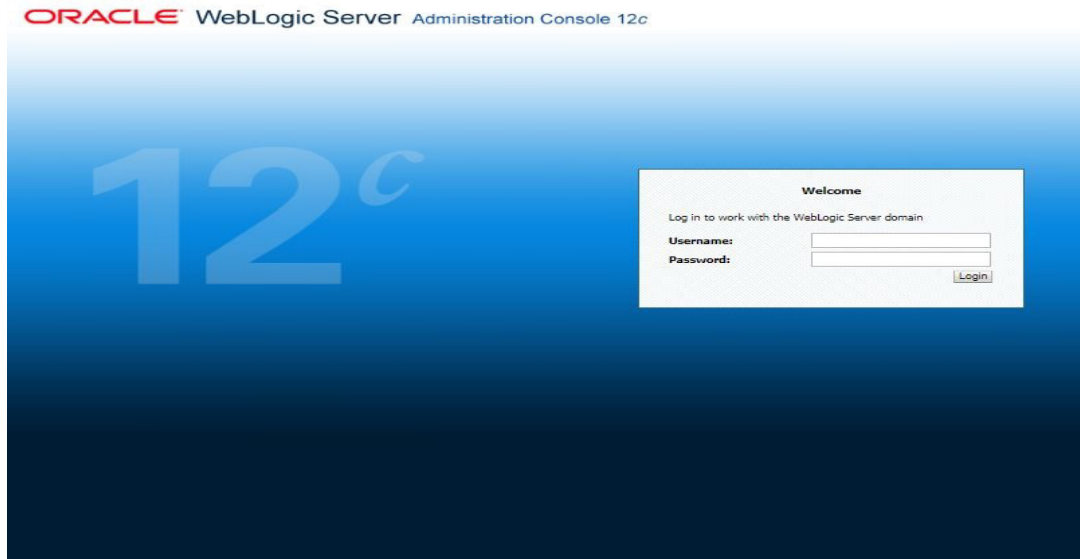
While installing, the script recompiles the invalid objects and completes the installation of DB objects.

3. Deploying Application Interface WebServices

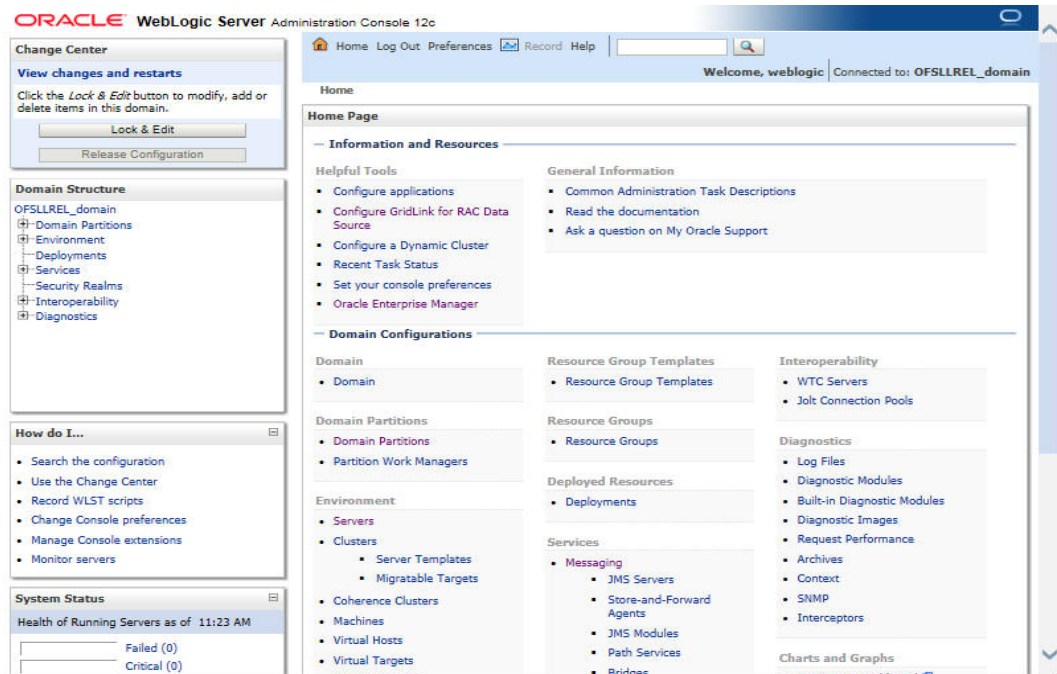
3.1 Creating Data Sources for WebServices

it is assumed that a managed server is already created for the following web service deployment(s) as per the process detailed in Application Installation guide section - 3.2 Creating Domain and Servers.

1. Login to WebLogic Server 12c console (http://hostname:port/console).



2. The following window is displayed.



3. Click Domain Name > Services > Data Sources. The following window is displayed.

ORACLE WebLogic Server Administration Console 12c

Home > Summary of JDBC Data Sources

Welcome, weblogic | Connected to: OFSLLREL_domain

Summary of JDBC Data Sources

Configuration | Monitoring

A JDBC data source is an object bound to the JNDI tree that provides database connectivity through a pool of JDBC connections. Applications can look up a data source on the JNDI tree and then borrow a database connection from a data source.

This page summarizes the JDBC data source objects that have been created in this domain.

Customize this table

Data Sources (Filtered - More Columns Exist)

Click the **Lock & Edit** button in the Change Center to activate all the buttons on this page.

New | Delete | Showing 1 to 9 of 9 | Previous | Next

Name	Type	JNDI Name	Targets
<input type="checkbox"/> AQ-JMS-DB	Generic	jdbc/aqjmsdb	OFSLL_ManagedServer
<input type="checkbox"/> jdbc/dbk105nIEJBDS	Generic	jdbc/dbk105nIEJBDS	WS_ManagedServer
<input type="checkbox"/> LocalSvcTbDataSource	Generic	jdbc/LocalSvcTbDataSource	AdminServer
<input type="checkbox"/> mds-adf	Generic	jdbc/mds/adf	AdminServer, OFSLL_ManagedServer
<input type="checkbox"/> OFSLL	Generic	jdbc/ofslIDBConnDS	AdminServer, OFSLL_ManagedServer
<input type="checkbox"/> opss-audit-DBDS	Generic	jdbc/AuditAppendDataSource	AdminServer, OFSLL_ManagedServer, WS_ManagedServer
<input type="checkbox"/> opss-audit-viewDS	Generic	jdbc/AuditViewDataSource	AdminServer, OFSLL_ManagedServer, WS_ManagedServer
<input type="checkbox"/> opss-data-source	Generic	jdbc/OpssDataSource	AdminServer, OFSLL_ManagedServer, WS_ManagedServer
<input type="checkbox"/> WLSSchemaDataSource	Generic	jdbc/WLSSchemaDataSource	AdminServer, OFSLL_ManagedServer, WS_ManagedServer

New | Delete | Showing 1 to 9 of 9 | Previous | Next

4. Click 'Lock & Edit' button on the left panel. Click 'New' on right panel and select 'Generic Data Source'.

ORACLE WebLogic Server Administration Console 12c

Home > Summary of JDBC Data Sources

Welcome, weblogic | Connected to: OFSLLREL_domain

Summary of JDBC Data Sources

Configuration | Monitoring

A JDBC data source is an object bound to the JNDI tree that provides database connectivity through a pool of JDBC connections. Applications can look up a data source on the JNDI tree and then borrow a database connection from a data source.

This page summarizes the JDBC data source objects that have been created in this domain.

Customize this table

Data Sources (Filtered - More Columns Exist)

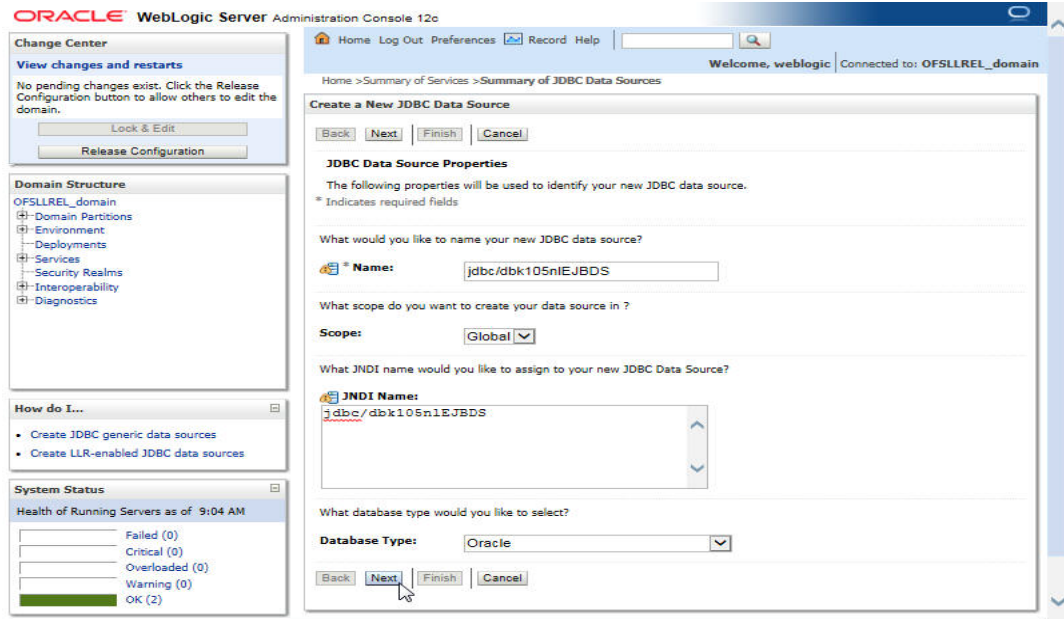
Click the **Lock & Edit** button in the Change Center to activate all the buttons on this page.

New | Delete | Showing 1 to 9 of 9 | Previous | Next

Name	Type	JNDI Name	Targets
<input type="checkbox"/> Generic Data Source	Generic	jdbc/aqjmsdb	OFSLL_ManagedServer
<input type="checkbox"/> GridLink Data Source	Generic	jdbc/dbk105nIEJBDS	WS_ManagedServer
<input type="checkbox"/> Multi Data Source	Generic	jdbc/LocalSvcTbDataSource	AdminServer
<input type="checkbox"/> Proxy Data Source	Generic	jdbc/mds/adf	AdminServer, OFSLL_ManagedServer
<input type="checkbox"/> UCP Data Source	Generic	jdbc/ofslIDBConnDS	AdminServer, OFSLL_ManagedServer
<input type="checkbox"/> mds-adf	Generic	jdbc/mds/adf	AdminServer, OFSLL_ManagedServer
<input type="checkbox"/> OFSLL	Generic	jdbc/ofslIDBConnDS	AdminServer, OFSLL_ManagedServer
<input type="checkbox"/> opss-audit-DBDS	Generic	jdbc/AuditAppendDataSource	AdminServer, OFSLL_ManagedServer, WS_ManagedServer
<input type="checkbox"/> opss-audit-viewDS	Generic	jdbc/AuditViewDataSource	AdminServer, OFSLL_ManagedServer, WS_ManagedServer
<input type="checkbox"/> opss-data-source	Generic	jdbc/OpssDataSource	AdminServer, OFSLL_ManagedServer, WS_ManagedServer
<input type="checkbox"/> WLSSchemaDataSource	Generic	jdbc/WLSSchemaDataSource	AdminServer, OFSLL_ManagedServer, WS_ManagedServer

New | Delete | Showing 1 to 9 of 9 | Previous | Next

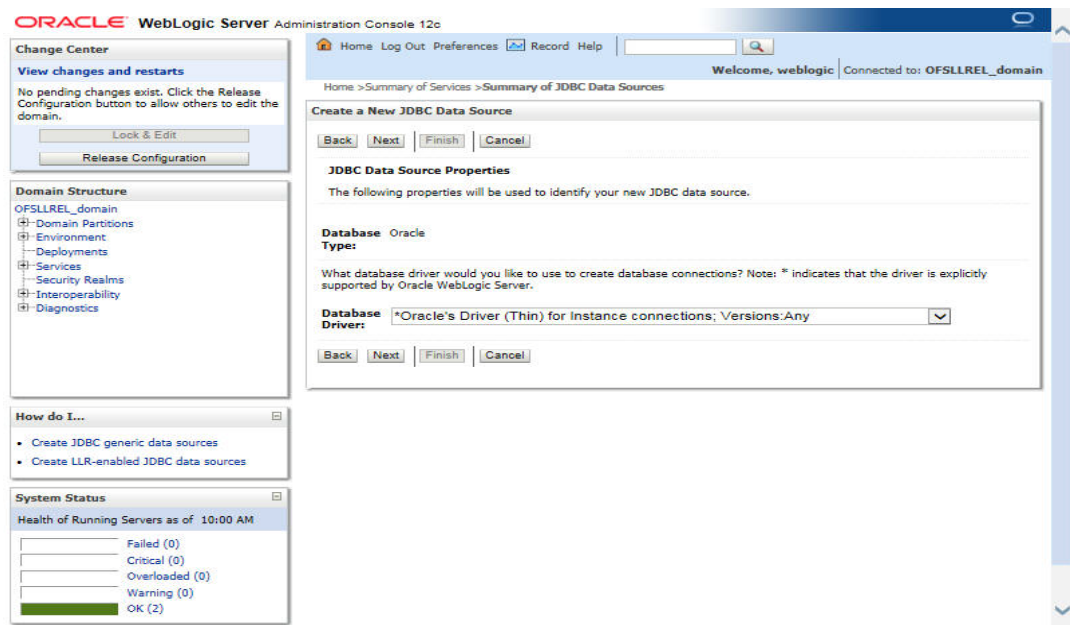
5. Specify the following details:



- Enter Data source Name.
- Enter JNDI Name as 'jdbc/dbk105nlEJBDS'.
- Select 'Oracle' as Database Type.

6. Click 'Next'. The following window is displayed.

7. Select the Database Driver 'Oracle's Driver (Thin) for Instance connections; Versions:Any' as shown.



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

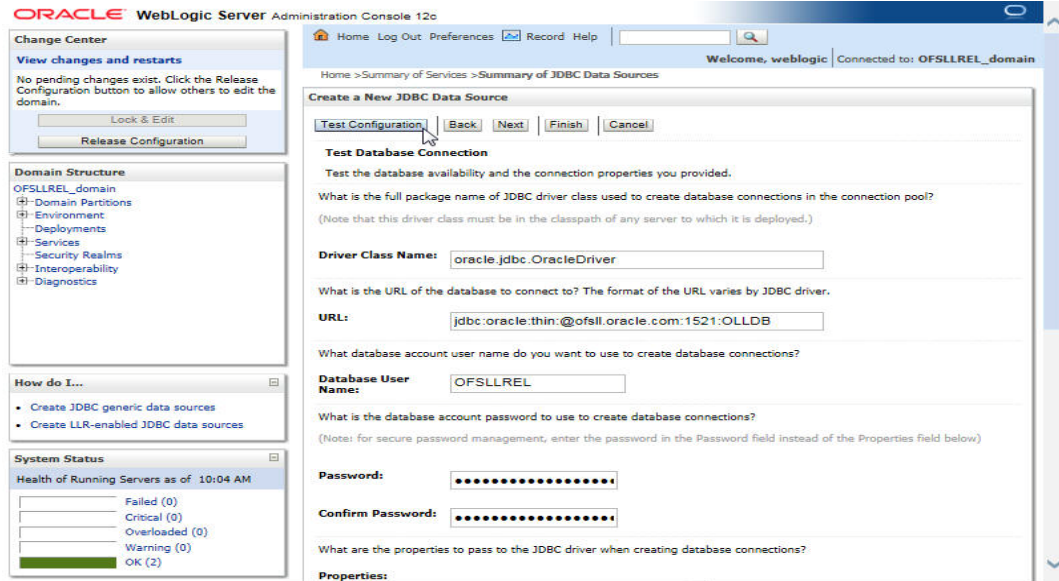
The screenshot shows the Oracle WebLogic Server Administration Console. The main window is titled "Create a New JDBC Data Source". On the left, there are three panels: "Change Center" (with "Release Configuration" button), "Domain Structure" (showing OFSLLREL_domain), and "System Status" (showing 2 OK servers). The main content area has a breadcrumb "Home > Summary of Services > Summary of JDBC Data Sources" and a "Welcome, weblogic" message. The "Create a New JDBC Data Source" wizard is in progress, showing "Transaction Options". The text says: "You have selected non-XA JDBC driver to create database connection in your new data source. Does this data source support global transactions? If yes, please choose the transaction protocol for this data source." There are three radio button options: "Supports Global Transactions" (checked), "Logging Last Resource", and "Emulate Two-Phase Commit". Below "Supports Global Transactions", it says: "Select this option if you want to enable non-XA JDBC connections from the data source to participate in global transactions using the Logging Last Resource (LLR) transaction optimization. Recommended in place of Emulate Two-Phase Commit." Below "Emulate Two-Phase Commit", it says: "Select this option if you want to enable non-XA JDBC connections from the data source to participate in global transactions using the one-phase commit transaction processing. With this option, no other resources can participate in the global transaction." At the bottom of the wizard, there are "Back", "Next", "Finish", and "Cancel" buttons.

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

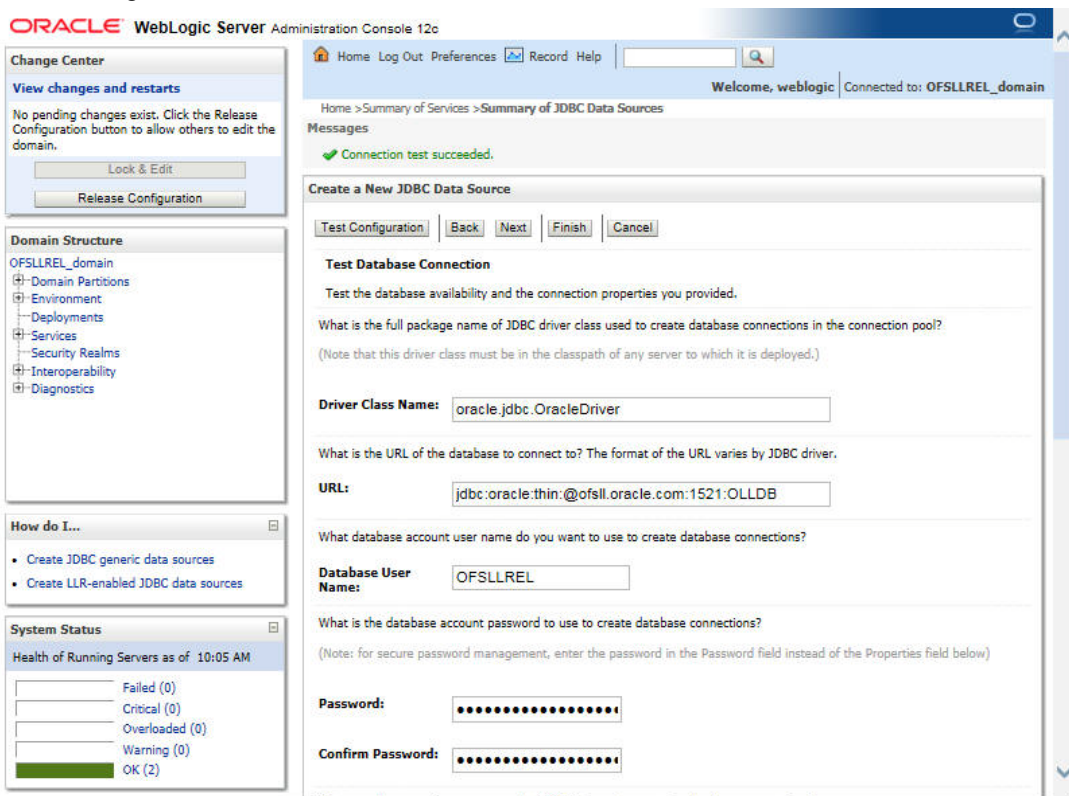
The screenshot shows the Oracle WebLogic Server Administration Console. The main window is titled "Create a New JDBC Data Source". On the left, there are three panels: "Change Center" (with "Release Configuration" button), "Domain Structure" (showing OFSLLREL_domain), and "System Status" (showing 2 OK servers). The main content area has a breadcrumb "Home > Summary of Services > Summary of JDBC Data Sources" and a "Welcome, weblogic" message. The "Create a New JDBC Data Source" wizard is in progress, showing "Connection Properties". The text says: "Define Connection Properties. What is the name of the database you would like to connect to?" The "Database Name" field contains "OLLDB". The text says: "What is the name or IP address of the database server?" The "Host Name" field contains "ofsl1.oracle.com". The text says: "What is the port on the database server used to connect to the database?" The "Port" field contains "1521". The text says: "What database account user name do you want to use to create database connections?" The "Database User Name" field contains "OFSLLREL". The text says: "What is the database account password to use to create database connections?" The "Password" field contains "*****" and the "Confirm Password" field contains "*****". Below these fields, there is an "Additional Connection Properties" section with a field for "oracle.jdbc.DRCPConnectionClass". At the bottom of the wizard, there are "Back", "Next", "Finish", and "Cancel" buttons.

10. Enter the Database details.

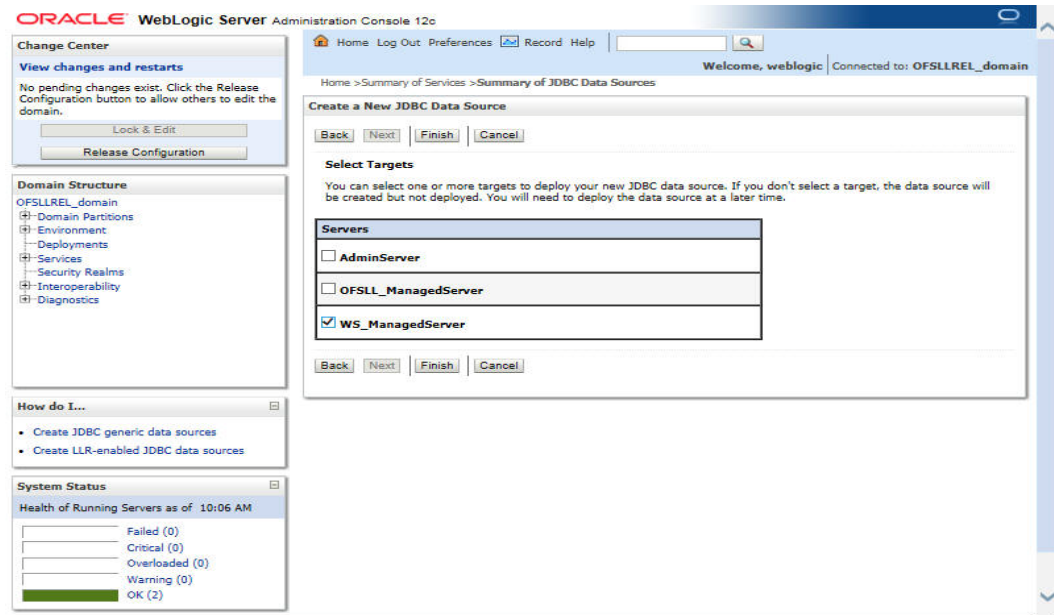
11. Click 'Next'. The following window is displayed.



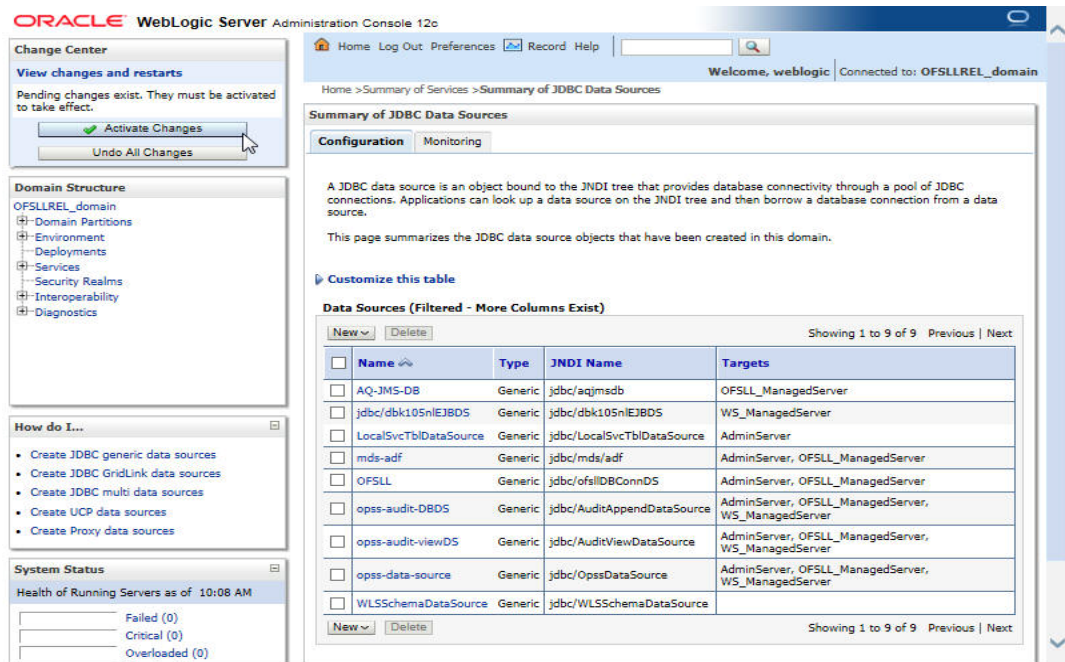
12. Click 'Test Configuration'. The following window is displayed indicating a confirmation message as 'Connection test succeeded'.



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



14. Select 'WS_ManagedServer' as the target Web service Server and click 'Finish'. The following window is displayed.



15. Click 'Activate Changes'.

Similarly follow the above steps to create the following data sources:

- jdbc/dbkwsDS

– jdbc/IN1HukWznG0b4esj

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area is titled "Summary of JDBC Data Sources" and includes a "Configuration" tab. Below the tab, there is a message: "All changes have been activated. No restarts are necessary." A table titled "Data Sources (Filtered - More Columns Exist)" is displayed, showing a list of data sources. The table has columns for Name, Type, JNDI Name, and Targets. The data sources listed are:

Name	Type	JNDI Name	Targets
AQ-JMS-DB	Generic	jdbc/aqjmsdb	OFSLL_ManagedServer
jdbc/dbk105n/EJBDS	Generic	jdbc/dbk105n/EJBDS	WS_ManagedServer
LocalSvcTblDataSource	Generic	jdbc/LocalSvcTblDataSource	AdminServer
mds-adf	Generic	jdbc/mds/adf	AdminServer, OFSLL_ManagedServer
OFSLL	Generic	jdbc/ofsslDBConnDS	AdminServer, OFSLL_ManagedServer
opss-audit-DBDS	Generic	jdbc/AuditAppendDataSource	AdminServer, OFSLL_ManagedServer, WS_ManagedServer
opss-audit-viewDS	Generic	jdbc/AuditViewDataSource	AdminServer, OFSLL_ManagedServer, WS_ManagedServer
opss-data-source	Generic	jdbc/OpssDataSource	AdminServer, OFSLL_ManagedServer, WS_ManagedServer

3.2 Working with SSL

It is not recommended to run OFSLL WebServices with the test certificates in production. You have to get:

1. Vendor public production key/certificates for SSL handshake. These have to be imported into weblogic truststore.
2. RO public production key/certificates to validate digital signature in the RO inputs. This has to be imported into dls_cacerts keystore mentioned in the configuration file.
3. Generate production grade public/private key signed by appropriate CA. The public key has to be shared with RO so that they can validate digital signature in OFSLL requests. The corresponding private key should not be shared, should be imported into dls_cacerts keystore mentioned in the configuration file and used to add the digital signature in RO requests.

Additional Notes

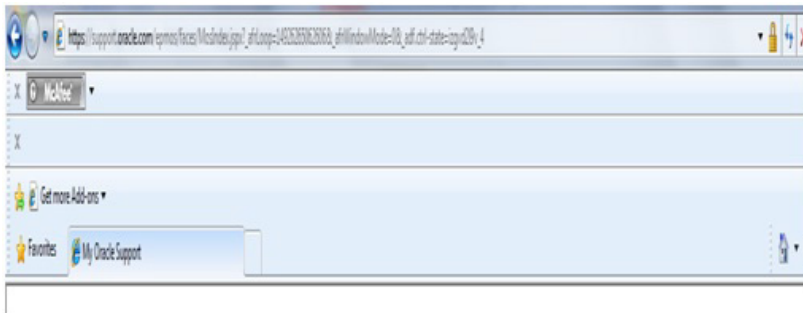
- While testing with the test certificates, you may get error: '**Signature verification failed because RSA key public exponent [3] is too small**'.
 - As a fix, you need to add the following in the start-up script: 'Dweblogic.security.SSL.allowSmallRSAExponent=true'
- You may encounter error: '**java.security.InvalidKeyException: Illegal key size or Cipher not initialize**'.
 - As a fix add the following in the start-up script: 'Dweblogic.security.SSL.nojce=true'
- You may encounter error: '**java.security.InvalidAlgorithmParameterException: the trustAnchors parameter must be non-empty**'.
 - As a fix remove the '-DUseSunHttpHandler=true' SSL option if any from the startup script.

3.2.1 Steps to Import Certificates to keystore

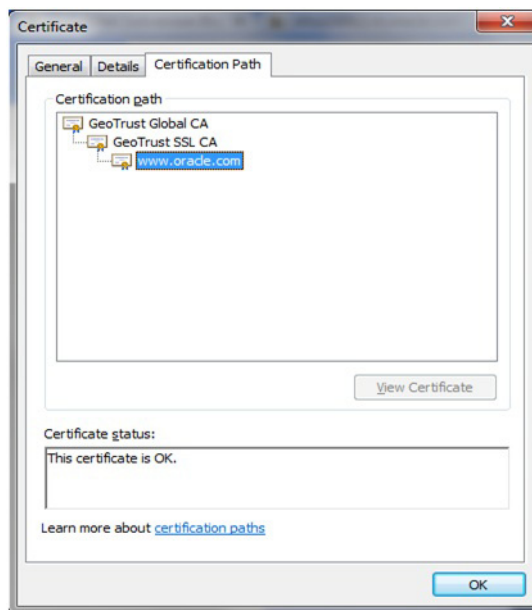
1. The JKS(dls_cacerts) should be available under /WEB-INF/classes/config.

2. Save all the certificates from the vendor website. Note to save the certificates in "Base-64 encoded X.509(.CER)" and with extn .cer. Steps for saving certificates from the vendor website:

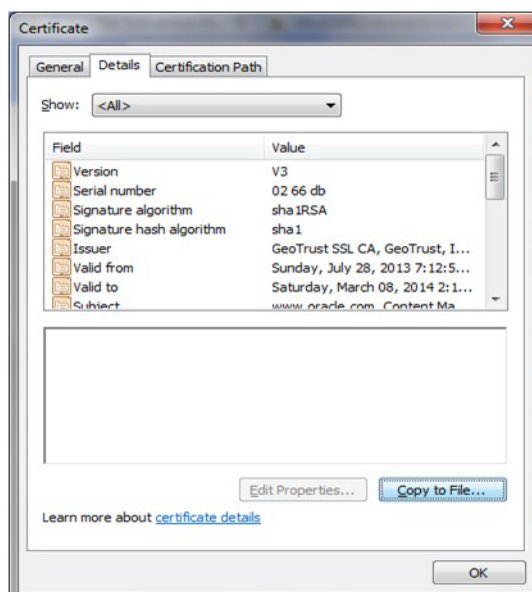
- Click on the padlock and choose 'View Certificates'.



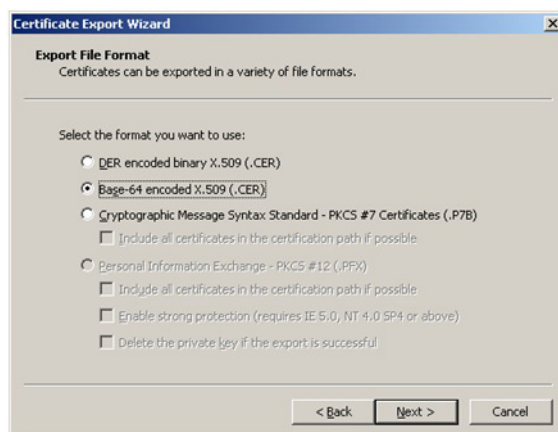
- Click on the Certification Path tab and select the certificate with the 'Name' and 'Issued To' the same as the user-defined ID.



- Go to the Details tab.



- Click on the 'Copy to File' button, and click 'Next'. Select 'Base-64 encoding' and save the file somewhere on your local computer.



3. Run following command to import certificate into JKS(dls_cacerts)
 - "keytool -keystore <Key store Path> /dls_cacerts -import -trustcacerts -file <Certificate location in file system>\xxx.cer -alias <alias as mentioned in config file>
4. Run following command to view details of certificate like expiration date of certificate etc.
 - "keytool -list -rfc -alias alias <alias as mentioned in config file> -keystore <Key store Path> /dls_cacerts
 - "keytool -list -v -alias alias <alias as mentioned in config file> -keystore <Key store Path> /dls_cacerts

For more details on keytool refer the link: <http://docs.oracle.com/javase/7/docs/technotes/tools/windows/keytool.html>

3.2.2 **Enable SSL Debugging**

SSL debugging can be enabled by adding the following to managed server start-up script: 'Dssl.debug=true'

3.2.3 **Connecting to service supporting only TLS protocol**

For WLS 12c by default (acting as a client) will send sslv2 hello for the SSL handshake to TLS service. The TLS service will not respond to SSLv2 hello and the connection will be dropped.

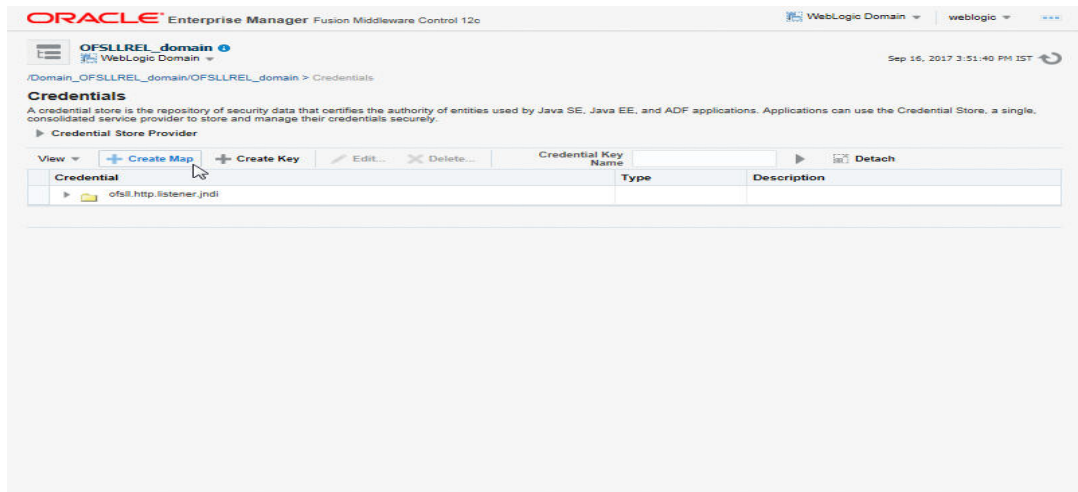
The fix for the problem is to set Dweblogic.security.SSL.protocolVersion=TLS1 at the Managed server level in which the WebServices have been deployed.

3.3 **Create RouteOne Credentials and System Policies**

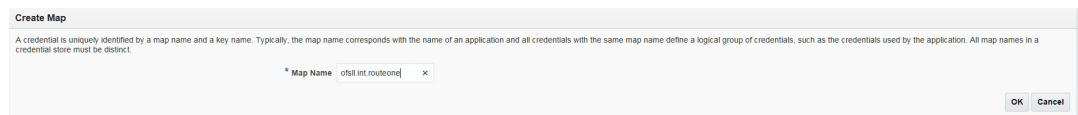
In order Configure RouteOne, you need to create credentials and system policies.

1. Login to Oracle Enterprise Manager 12c (<http://hostname:port/em>).

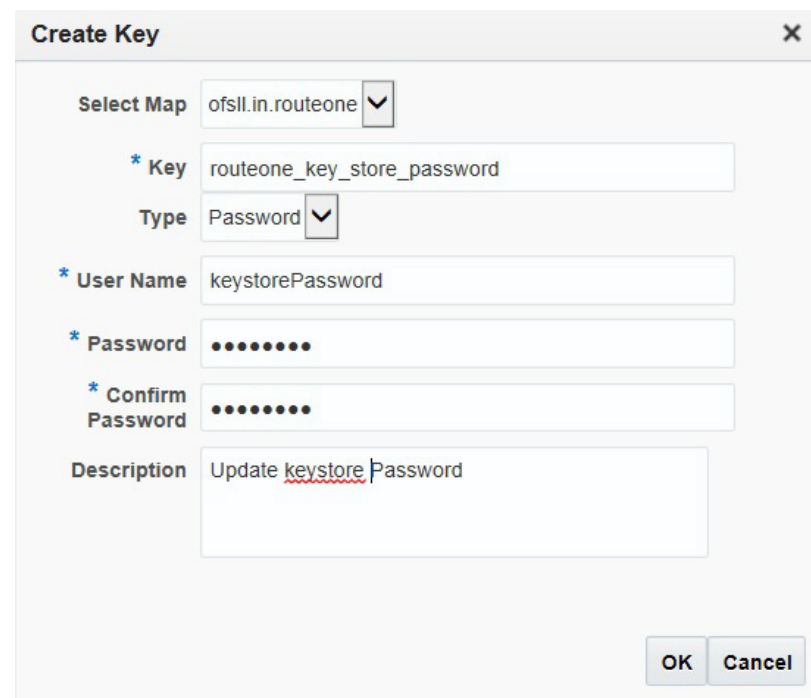
- On the left panel, right click on OFSLLREL_domain and select Security > System Policies > Credentials. The following window is displayed.



- Click 'Create Map'. The following window is displayed.



- Enter Map Name as 'ofssl.int.routeone' and click 'OK'.
- Click 'Create Key'. The following window is displayed.



- Click 'OK'.

Similarly you need to create the following Maps and corresponding keys as indicated in following table.

Maps	Key Name	Username	Password	Description
------	----------	----------	----------	-------------

ofssl.int.routeone	routeone_key_store_pd	keystore-Password	changeit	The keystore password
	routeone_key_alias	roKeyAlias	routeone_pub_tst	RouteOne's public key alias name. The public key is needed to verify the xml signature of the request.
	routeone_sscro_key_pd	sscroKeyAlias	ssc_routeone	OFSLL's private key alias name. The private key is used to sign xml response to RouteOne
	routeone_sscro_key_passsword	sscroKey-Password	demotestSSCR1	OFSLL's private key password

You need to provide access permission for the below mapping. For details on how to set the access permission, refer to section 'Create Credentials and System Policies' in Application Installation guide.

Permission Class	Resource Name	Permission Actions
oracle.security.jps.service.credstore.CredentialAccessPermission	context=SYSTEM,mapName=ofssl.int.routeone,keyName=*	read

3.4 Deploying Webservices

3.4.1 Deployment of WebServices in Enterprise Manager

1. Download and unzip the WebServices - ofsslxws.zip.
2. Following is a mapping of which EAR is needed for which service:

dbkls-xxws.ws.app-dt.ear	dbkls-xxws.ws.app-ds.ear	dbkls-xxws.ws.app-ro.ear
DT Interface: To receive loan application from dealer track	DS Interface: To receive edocs application update	RO Interface: To receive loan application from route one
DT Interface: To receive loan application/deal update from dealer track	DS Interface: To receive edocs comment update	RO Interface: To receive loan application/deal refresh from route one
DT Interface: To receive comments from dealer track	DS Interface: To receive edocs location update	RO Interface: To receive comments from route one
LOSPostStatusRequestService: To post comments to dealer track		LOSPostStatusRequestService: To post comments to route one
LOSPostStatusRequestService: To post application status to dealer track		LOSPostStatusRequestService: To post application status to route one

ILOSPostDealerDetailsService: To post dealer details to dealer track		ILOSPostDealerDetailsService: To post dealer details to dealer track
		LOSEContractService: To receive contract information from RouteOne

3. Unzip all the ear files present:

- dbkls-xxws.ws.app-dt.ear
- dbkls-xxws.ws.app-ro.ear
- dbkls-xxws.ws.app-ds.ear

4. Open each of the unzipped files and unzip the war file.

```
-bash-4.1$ unzip ofsl1xws.zip -d ofsl1xws
Archive:  ofsl1xws.zip
  inflating: ofsl1xws/dbkls-xxws.ws.app-ds.ear
  inflating: ofsl1xws/dbkls-xxws.ws.app-dt.ear
  inflating: ofsl1xws/dbkls-xxws.ws.app-ro.ear
-bash-4.1$ cd ofsl1xws
-bash-4.1$ ls
dbkls-xxws.ws.app-ds.ear  dbkls-xxws.ws.app-dt.ear  dbkls-xxws.ws.app-ro.ear
-bash-4.1$ unzip dbkls-xxws.ws.app-ds.ear -d dbkls-xxws.ws.app-ds
Archive:  dbkls-xxws.ws.app-ds.ear
  creating: dbkls-xxws.ws.app-ds/META-INF/
  inflating: dbkls-xxws.ws.app-ds/META-INF/application.xml
  inflating: dbkls-xxws.ws.app-ds/dbkls-xws-web-ds.war
-bash-4.1$ cd dbkls-xxws.ws.app-ds
-bash-4.1$ ls
dbkls-xws-web-ds.war  META-INF
-bash-4.1$ unzip dbkls-xws-web-ds.war -d dbkls-xws-web-ds
Archive:  dbkls-xws-web-ds.war
  creating: dbkls-xws-web-ds/WEB-INF/
  creating: dbkls-xws-web-ds/WEB-INF/classes/
  creating: dbkls-xws-web-ds/WEB-INF/classes/com/
  creating: dbkls-xws-web-ds/WEB-INF/classes/com/ofss/
  creating: dbkls-xws-web-ds/WEB-INF/classes/com/ofss/fll/
  creating: dbkls-xws-web-ds/WEB-INF/classes/com/ofss/fll/utills/
  creating: dbkls-xws-web-ds/WEB-INF/classes/com/ofss/fll/xws/
  creating: dbkls-xws-web-ds/WEB-INF/classes/com/ofss/fll/xws/dialerintegration/
  creating: dbkls-xws-web-ds/WEB-INF/classes/com/ofss/fll/xws/exception/
  creating: dbkls-xws-web-ds/WEB-INF/classes/com/ofss/fll/xws/lookup/
  creating: dbkls-xws-web-ds/WEB-INF/classes/com/ofss/fll/xws/xae/
  creating: dbkls-xws-web-ds/WEB-INF/classes/com/ofss/fll/xws/xcl/
  creating: dbkls-xws-web-ds/WEB-INF/classes/com/ofss/fll/xws/xcs/
```

5. It creates a WEB-INF file

```
-bash-4.1$ ls
dbkls-xws-web-ds.war  META-INF  WEB-INF
```

After unzipping the war file to directory, the directory will have the following structure

- / dbkls-xxws.ws.app-ds / dbkls-xxws.ws.app-dt / dbklsxxws.ws.app-ro

WEB-INF (directory)

---->classes (directory)

- config

- class files (in package folders)

-----> lib (directory)

- Ofsl1CommonCSF.jar

-----> wsdl (directory)

- *.wsdl

-----> *-java-wsdl-mapping.xml

-----> web.xml

-----> weblogic.xml

-----> weblogic-webservices.xml

-----> weblogic-webservices-policy.xml

-----> webservices.xml

6. To edit the web interface config files, navigate to the above WEB-INF > classes > config. Edit the following configuration files with the application url and port.

For complete details on configuration parameters, refer to [“Appendix - Configuration parameters”](#) section in Appendix chapter.

- ds_servlet_init.conf- This is the configuration file only for edocs servlet interface

```
#### XML schema to use when validating incoming application update
#### (comments) messages

#### URL for OFSLL eDocs web service

LOSApplicationRequestServiceURL = http://<localhost>:<port>/dbkls-xws-app-ds/LOSApplicationRequestService
LOSApplicationCommentUpdateServiceURL = http://<localhost>:<port>/dbkls-xws-app-ds/LOSApplicationCommentUpdateService
LOSApplicationLocationUpdateServiceURL = http://<localhost>:<port>/dbkls-xws-app-ds/LOSApplicationLocationUpdateService
#### URL for OFSLL application update web service
```

- dt_servlet_init.conf- This is the configuration file only for dealer track servlet interface

```
#### URL for OFSLL new application web service

LOSApplicationRequestServiceURL = http://<localhost>:<port>/dbkls-xws-app-dt/LOSApplicationRequestService

#### URL for OFSLL application update web service

LOSApplicationUpdateServiceURL = http://<localhost>:<port>/dbkls-xws-app-dt/LOSApplicationUpdateService
```

- ro_servlet_init.conf- This is the configuration file only for route one servlet interface

```
#### URL for OFSLL new application web service

LOSApplicationRequestServiceURL = http://<localhost>:<port>/dbkls-xws-app-ro/LOSApplicationRequestService

#### URL for OFSLL application update web service

LOSApplicationUpdateServiceURL = http://<localhost>:<port>/dbkls-xws-app-ro/LOSApplicationUpdateService

#### URL for OFSLL e contract web service

LOSContractWebServiceServiceURL = http://<localhost>:<port>/dbkls-xws-app-ro/LOSContractService
```

7. Login to Web Logic application server enterprise manager (e.g.: <http://hostname:port/em>)



Domain Domain_OFSSLREL_domain

* User Name

* Password

Login to Partition

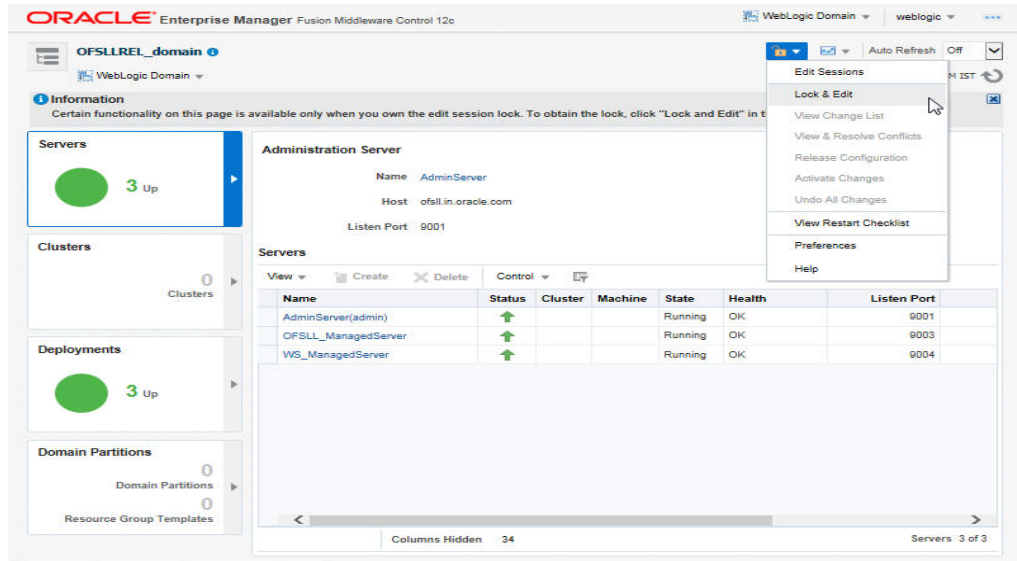


8. Enter valid login credentials. The following window is displayed.

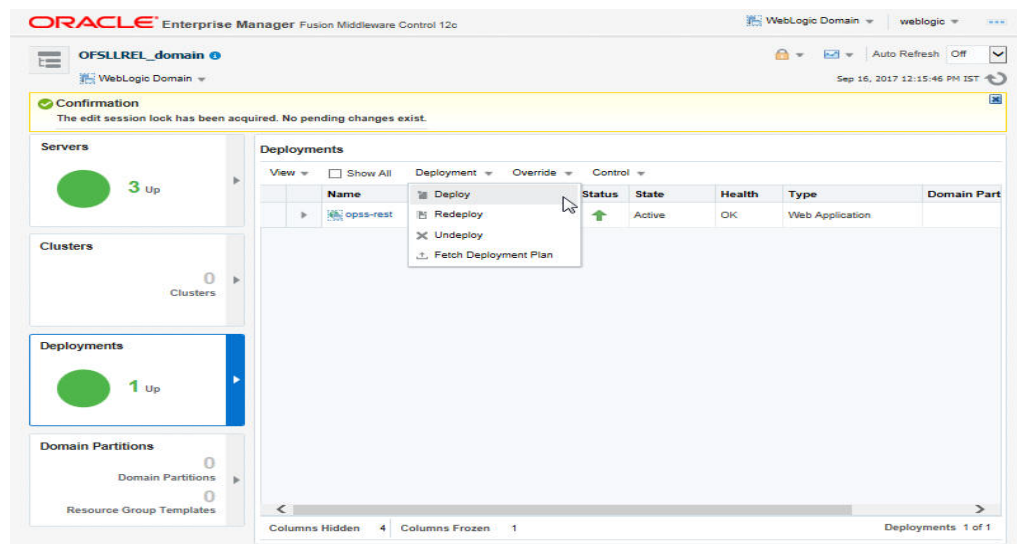
A screenshot of the Oracle Enterprise Manager console. The browser address bar shows "Enterprise Manager Fusion Middleware Control 12c" and "WebLogic Domain". The page title is "OFSSLREL_domain". On the left, there are navigation panels for "Servers" (3 Up), "Clusters" (0 Clusters), "Deployments" (3 Up), and "Domain Partitions" (0 Domain Partitions, 0 Resource Group Templates). The main content area shows "Administration Server" details: Name: AdminServer, Host: ofssl.in.oracle.com, Listen Port: 9001. Below this is a "Servers" table with columns: Name, Status, Cluster, Machine, State, Health, Listen Port. The table contains three rows: AdminServer(admin), OFSSL_ManagedServer, and WS_ManagedServer, all with a status of "Up" and "Running".

Name	Status	Cluster	Machine	State	Health	Listen Port
AdminServer(admin)	↑			Running	OK	9001
OFSSL_ManagedServer	↑			Running	OK	9003
WS_ManagedServer	↑			Running	OK	9004

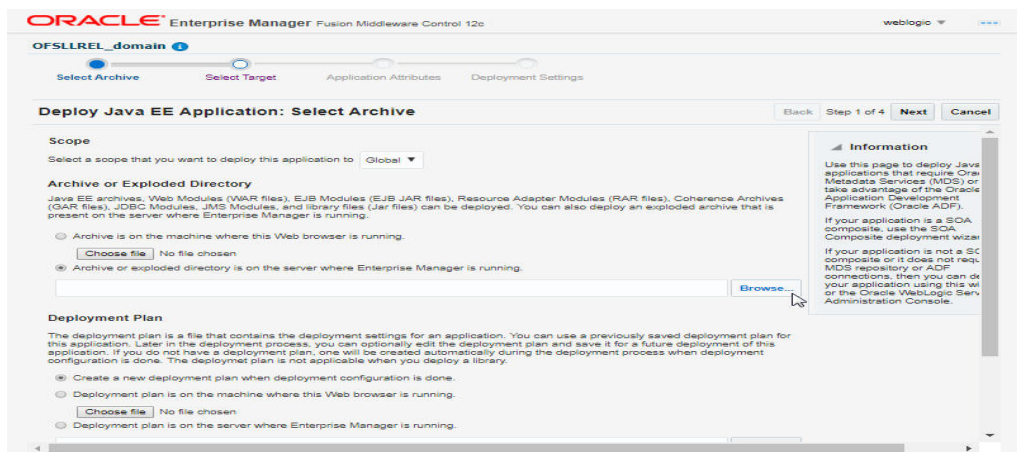
- Expand the weblogic domain present in the left pane. The following window is displayed.



- Right click on 'WS_ManagedServer' in left panel, select Application Deployment > Deploy.



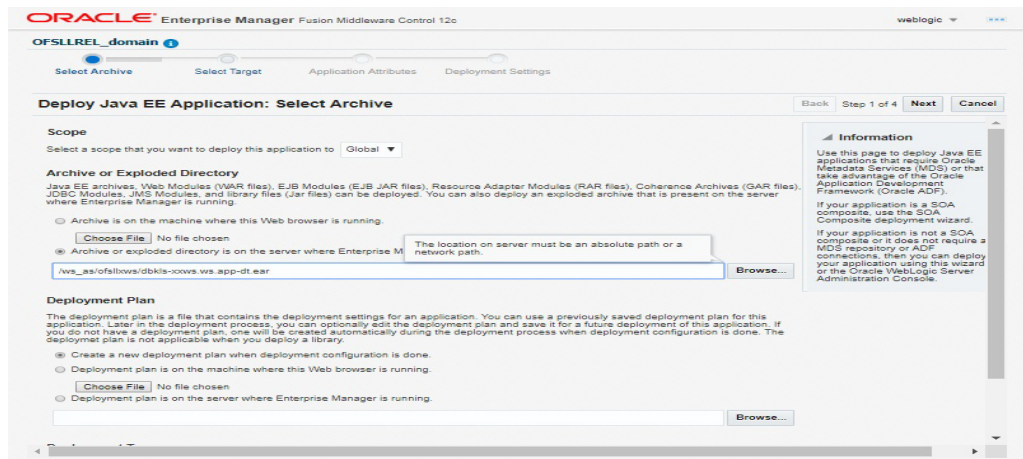
- The following window is displayed.



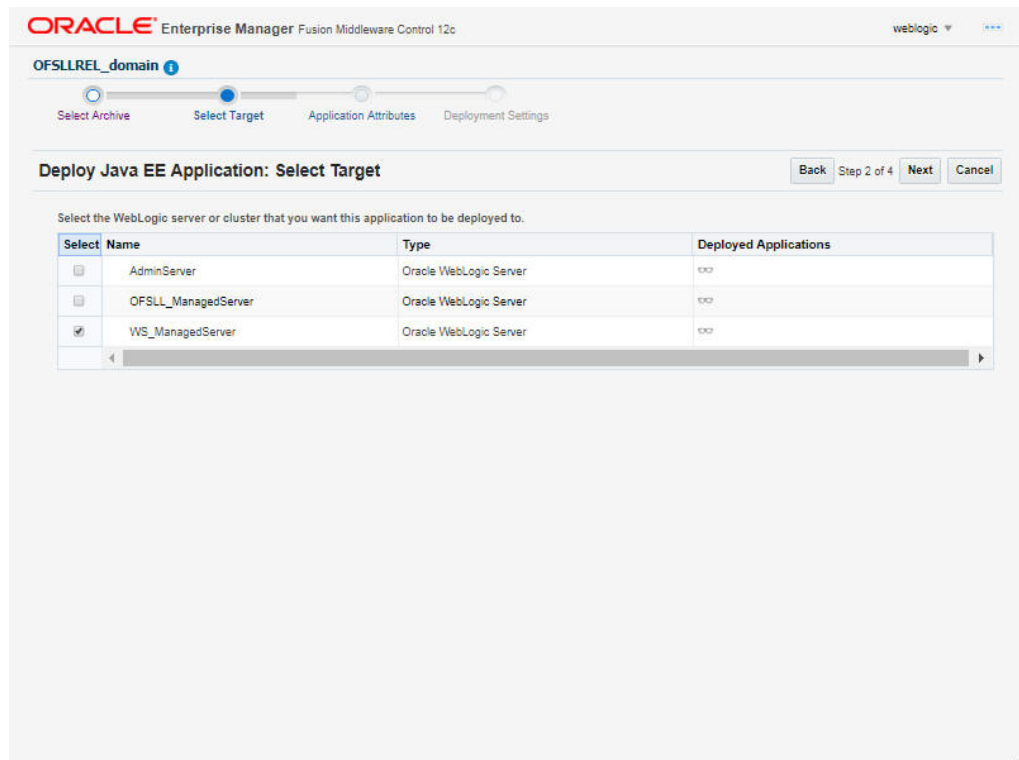
- Browse to the folder containing the WebService.

Eg: /ws-as/ofslxws/dbkls-xxws.ws.app

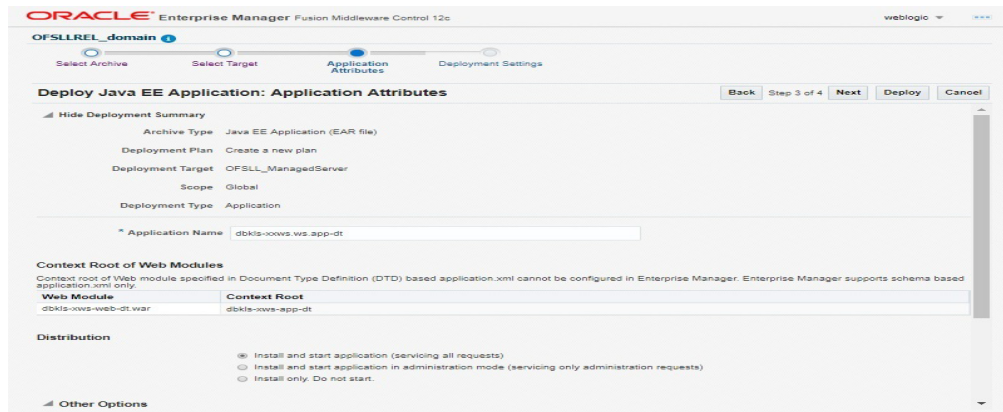
Click 'Next'.



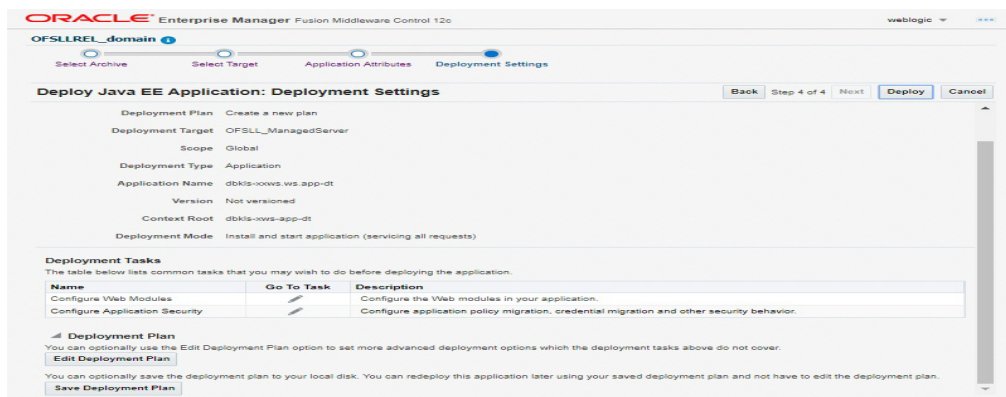
13. The following window is displayed. Select the server on which the WebService needs to be deployed. Click 'Next'.



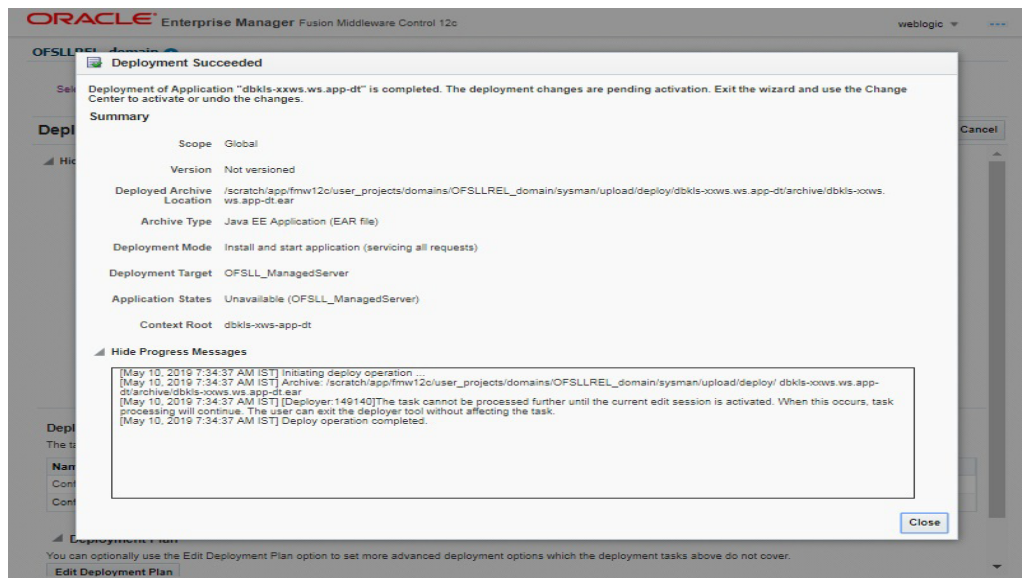
- The following window is displayed. Check the context root and select the Distribution option as 'Install and start application (servicing all requests)'. Click 'Next'.



- The following window is displayed. Click 'Deploy'.



- The following window is displayed. Click 'Close'.



- If required, similarly deploy rest of the WebServices.
- In case the context root has to be changed for the WebServices, it can be changed by editing the application.xml or through the console. To change through console, login to WebLogic Server 12c console (<http://hostname:port/console>).

19. Go to Deployments > <select the service deployment> > Configuration General and modify the context root to the recommended name as follows:

Service	Service EAR	Recommended Context	Remark
Edocs Interface	dbkls-xxws.ws.app-ds.ear	dbkls-xws-app-ds	If this the recommended context name is not used, then the Service URLs in the configuration files needs to be changed
Dealer Track Interface	dbkls-xxws.ws.app-ds.ear	dbkls-xws-app-dt	If this the recommended context name is not used, then the Service URLs in the configuration files needs to be changed
Route One Interface	dbkls-xxws.ws.app-ro.ear	dbkls-xws-app-ro	If this the recommended context name is not used, then the Service URLs in the configuration files needs to be changed

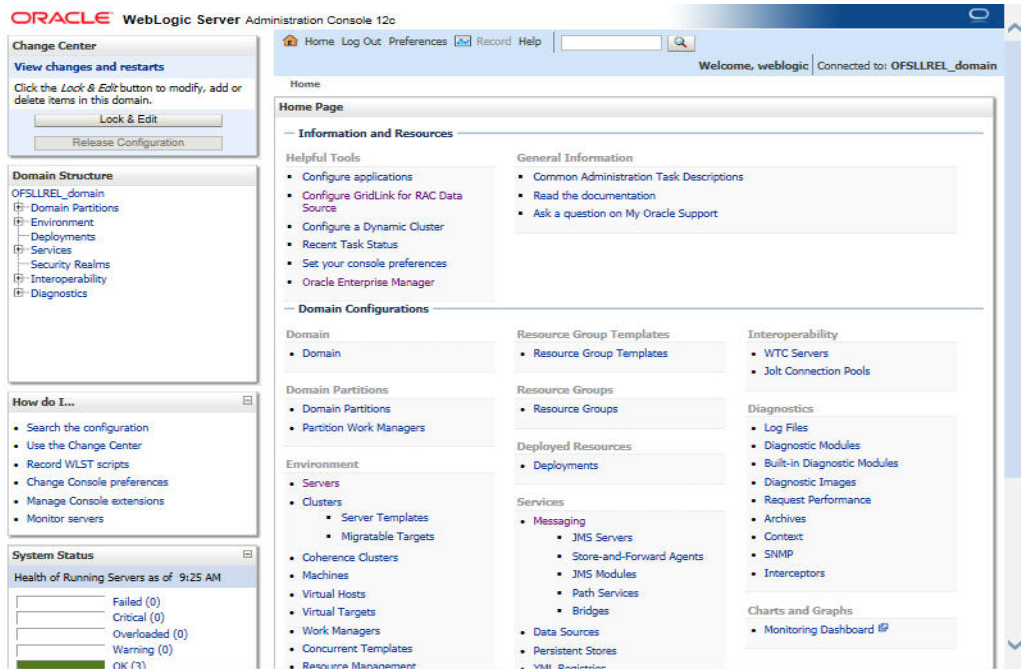
20. Ensure that the application status is 'Active'.

4. Configuring Weblogic Policy on WebServices

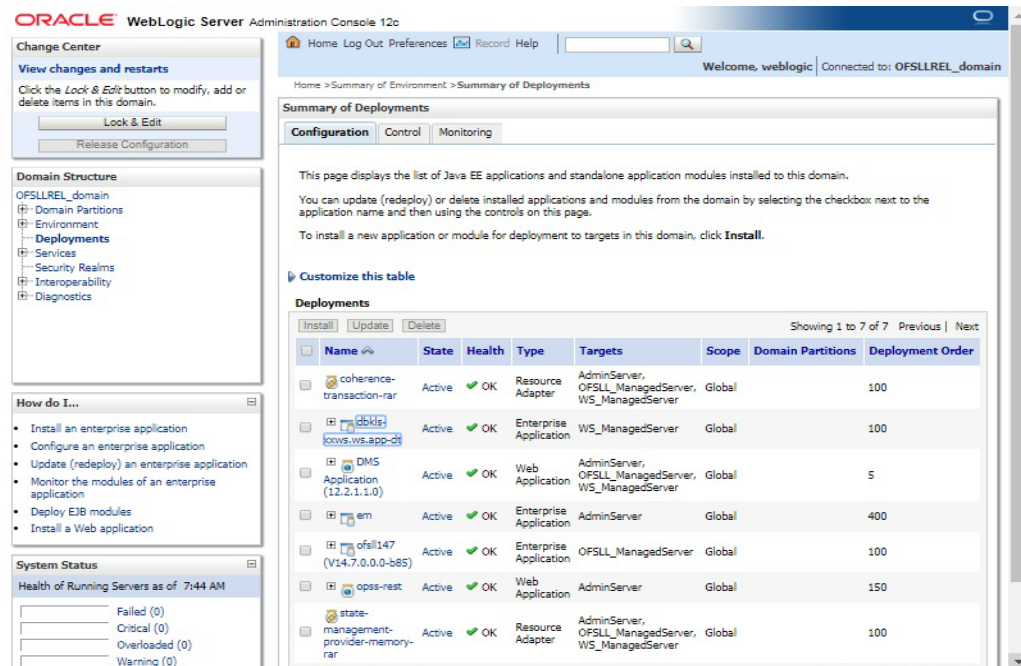
After deploying WebServices, you must configure Weblogic Policy on WebServices.

To configure Weblogic Policy on WebServices

1. Login to WebLogic application server console (http://hostname:port/console). The following window is displayed.



2. Click 'Deployments' which is available on both side panels as marked above. The following window is displayed.



- Click on application name dbkls-xxws.ws.app-dt on right side panel. The following window is displayed.

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area displays the configuration for the application 'dbkls-xxws.ws.app-dt'. The configuration is organized into several sections:

- Overview:** Contains a 'Save' button and a description: 'Use this page to view the general configuration of an enterprise application, such as its name, the physical path to the application files, the associated deployment plan, and so on. The table at the end of the page lists the modules (such as Web applications and EJBs) that are contained in the enterprise application. Click on the name of the module to view and update its configuration.'
- Configuration Table:** A table with columns for property name, value, and description.

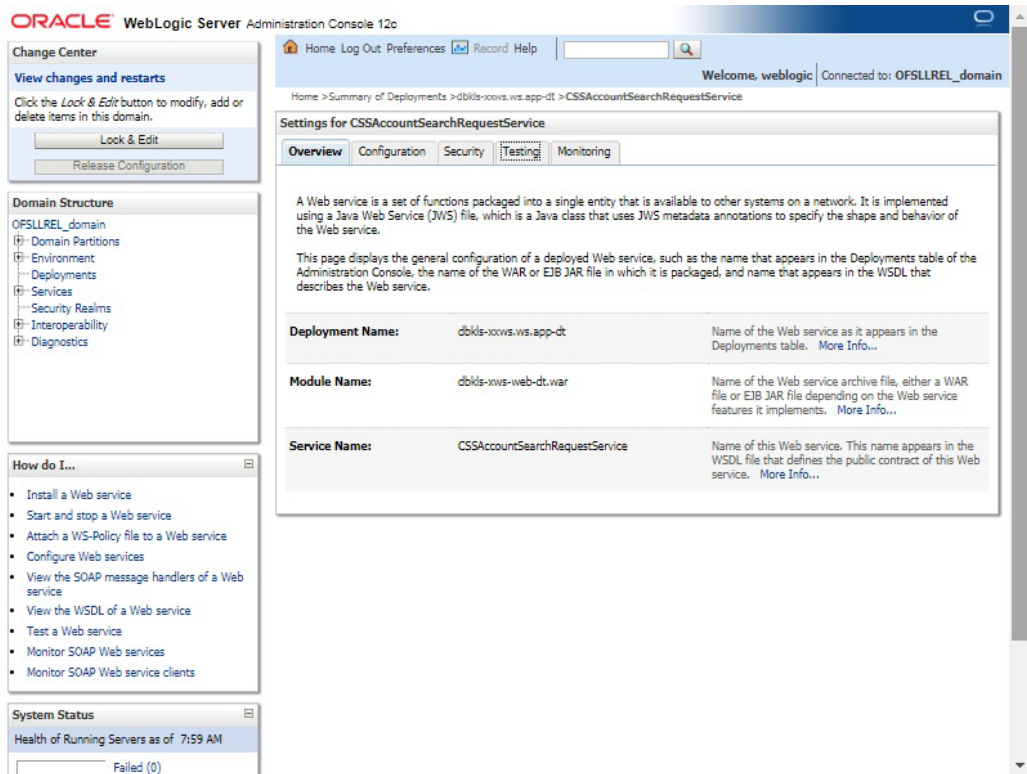
Name:	dbkls-xxws.ws.app-dt	The name of this enterprise application. More Info...
Scope:	Global	Specifies if this enterprise application is accessible within the domain, a partition, or a resource group template. More Info...
Path:	/scratch/app/fmw12c/user_projects/domains/OPFLLREL_domain/sysman/upload/ deploy/ dbkls-xxws.ws.app-dt/archive/dbkls-xxws.ws.app-dt.ear	The path to the source of the deployable unit on the Administration Server. More Info...
Deployment Plan:	(no plan specified)	The path to the deployment plan document on the Administration Server. More Info...
Staging Mode:	(not specified)	Specifies whether a deployment's files are copied from a source on the Administration Server to the Managed Server's staging area during application preparation. More Info...
Plan Staging Mode:	(not specified)	Specifies whether an application's deployment plan is copied from a source on the Administration Server to the Managed Server's staging area during application preparation. More Info...
Security Model:	DDOnly	The security model that is used to secure a deployed module. More Info...
Deployment	100	An integer value that indicates when this unit is deployed, relative to other deployable units on a

- Scroll down the page.

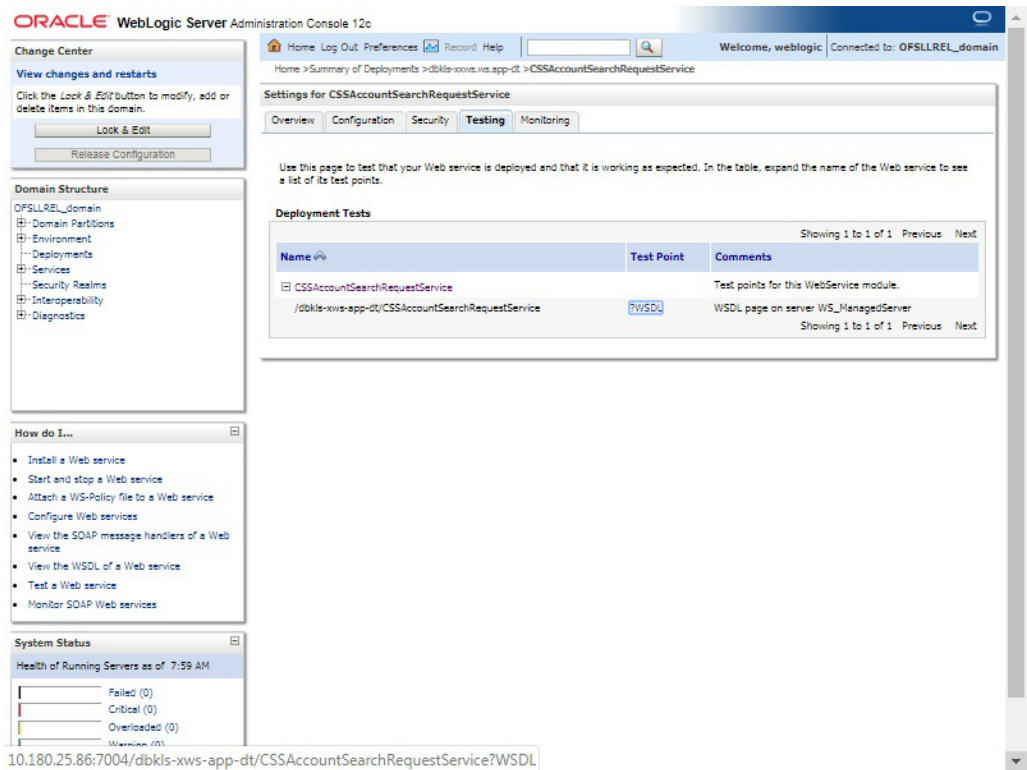
The screenshot shows the 'Modules and Components' section of the Oracle WebLogic Server Administration Console. It displays a list of modules for the application 'dbkls-xxws.ws.app-dt'. The list is organized into a tree structure:

- dbkls-xxws.ws.app-dt** (Enterprise Application)
 - EJBs
 - None to display
 - Modules
 - dbkls-xxws.app-dt (Web Application)
 - Web Services
 - CSBAccountDetailsRequestService (Web Service)
 - CSBAccountPayOffQuoteRequestService (Web Service)
 - CSBAccountSearchRequestService (Web Service)
 - CSBPostTransactionsRequestService (Web Service)
 - DialerIntegrator (Web Service)
 - LOSPostDealerDetailsService (Web Service)
 - LookupRequestService (Web Service)
 - LOSApplicationAccountWebService (Web Service)
 - LOSApplicationCommentUpdateService (Web Service)
 - LOSApplicationLocationUpdateService (Web Service)
 - LOSApplicationRequestService (Web Service)
 - LOSApplicationSearchRequestService (Web Service)
 - LOSApplicationUpdateService (Web Service)
 - LOSCalculatorsWebService (Web Service)
 - LOSCheckStatusRequestService (Web Service)
 - LOSApplicationRequestService (Web Service)
 - LOSContractService (Web Service)
 - LOSPostAccountUpdateService (Web Service)
 - LOSPostStatusRequestService (Web Service)

- Click 'WebServices CSSAccountSearchRequestService'. The following window is displayed.



- Select 'Testing' tab and click '?WSDL' link in Test Point column adjacent to the service name in the table.



- The following window is displayed. The WSDL will be accessible on http before applying WS-Policy.

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```

<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<definitions xmlns="" xmlns:WL5G3N0="http://schemas.xmlsoap.org/wsdl/"
  xmlns:WL5G3N1="http://www.w3.org/2001/XMLSchema"
  xmlns:WL5G3N2="http://com.ofss.f11.xws.xcs/AccountSearch.wsdl"
  xmlns:WL5G3N3="http://schemas.xmlsoap.org/wsdl/soap/" name="CSSAccountSearchRequestService"
  targetNamespace="http://com.ofss.f11.xws.xcs/AccountSearch.wsdl">
  <types>
    <xsd:schema xmlns="http://www.w3.org/2001/XMLSchema" xmlns:SOAP-ENC="http://schemas.xmlsoap.org/soap/encoding/"
      xmlns:ns1="http://com.ofss.f11.xws.xcs/ICSSAccountSearchRequestService.xsd"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
      xmlns:tns="http://com.ofss.f11.xws.xcs/AccountSearch.wsdl" xmlns:xsd="http://www.w3.org/2001/XMLSchema"
      targetNamespace="http://com.ofss.f11.xws.xcs/ICSSAccountSearchRequestService.xsd"/>
  </types>
  <message name="doAccountSearchStr0Request">
    <part name="requestStr" type="WL5G3N1:string"/>
  </message>
  <message name="doAccountSearchStr0Response">
    <part name="return" type="WL5G3N1:string"/>
  </message>
  <portType name="AccountSearchRequestService">
    <operation name="doAccountSearch">
      <input message="WL5G3N2:doAccountSearchStr0Request" name="doAccountSearchStr0Request"/>
      <output message="WL5G3N2:doAccountSearchStr0Response" name="doAccountSearchStr0Response"/>
    </operation>
  </portType>
  <binding name="CSSAccountSearchRequestService" type="WL5G3N2:AccountSearchRequestService">
    <binding style="rpc" transport="http://schemas.xmlsoap.org/soap/http"/>
    <operation name="doAccountSearch">
      <operation style="rpc">
        <input name="doAccountSearchStr0Request">
          <body namespace="CSSAccountSearchRequestService" use="literal"/>
        </input>
        <output name="doAccountSearchStr0Response">
          <body namespace="CSSAccountSearchRequestService" use="literal"/>
        </output>
      </operation>
    </binding>
  </binding>
</definitions>

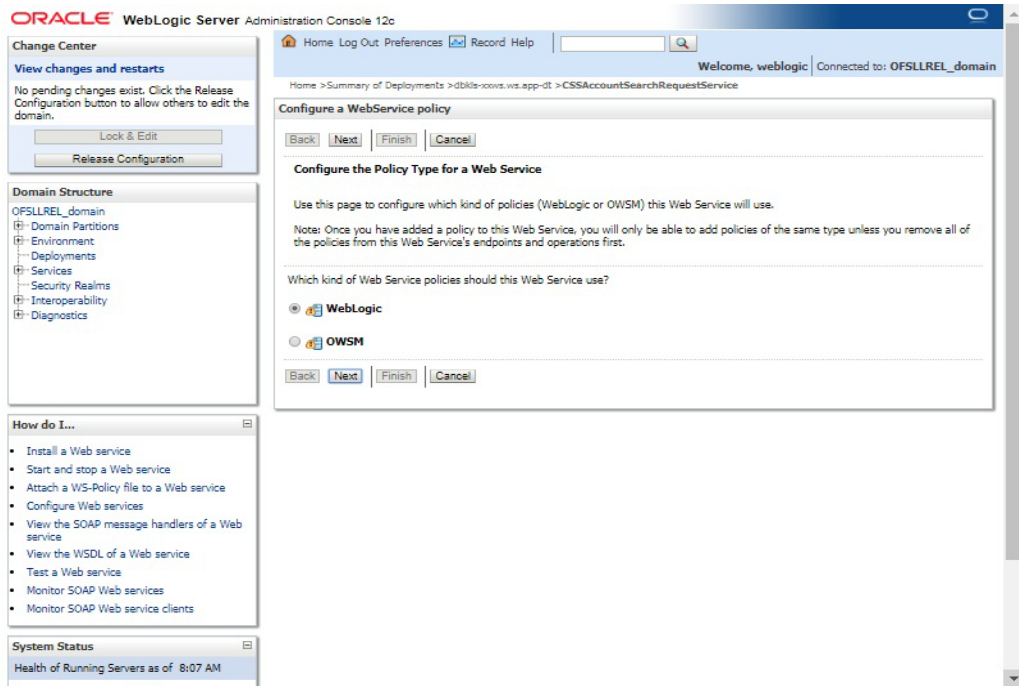
```

- Navigate to Configuration > WS-Policy tab.

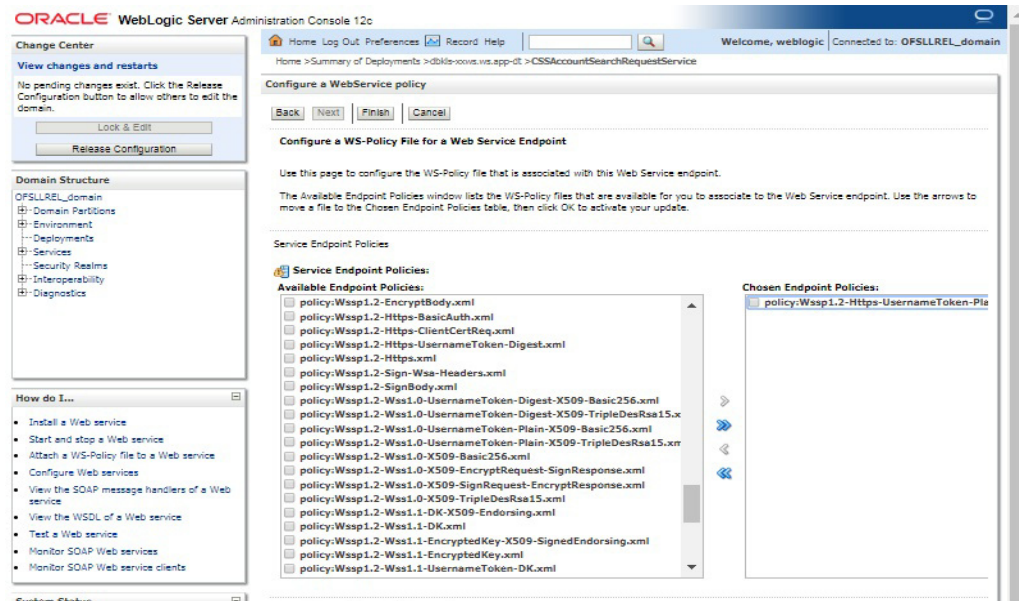
The screenshot shows the Oracle WebLogic Server Administration Console. The main content area displays the 'Settings for CSSAccountSearchRequestService' with the 'WS-Policy' tab selected. The page lists policy files attached to the endpoints and operations of this Web service. Below the main content, there is a table with two columns: 'Service Endpoints and Operations' and 'Policies'. The 'Service Endpoints and Operations' column contains one entry: 'CSSAccountSearchRequestService'. The 'Policies' column is currently empty. The table shows 'Showing 1 to 1 of 1' items.

- Click 'CSSAccountSearchRequestService'.

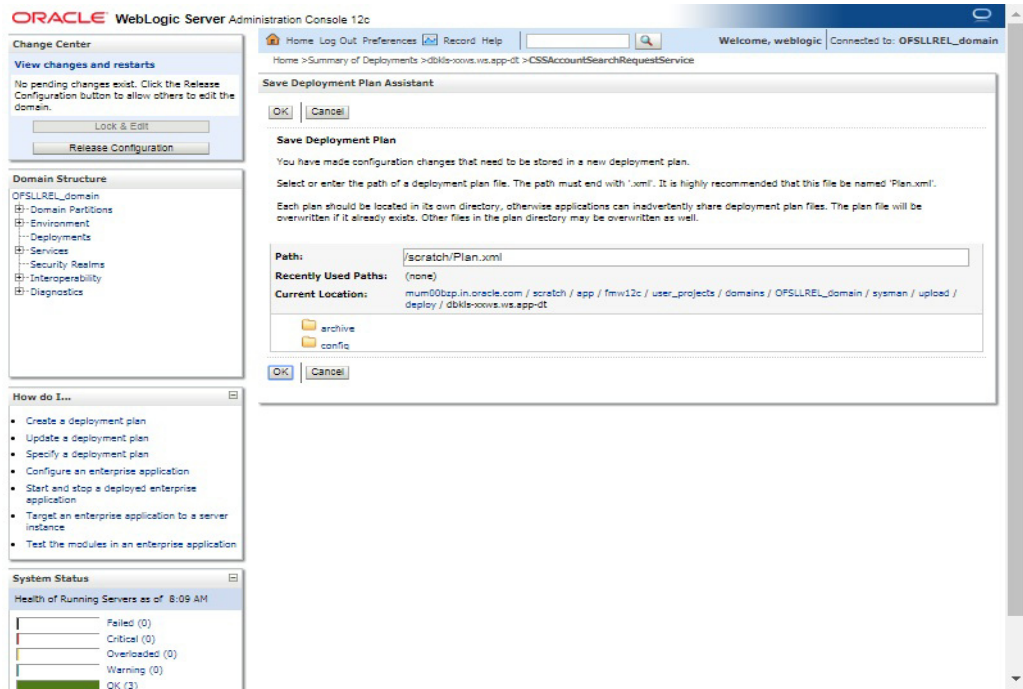
10. In the below window, select 'WebLogic' and click 'Next'.



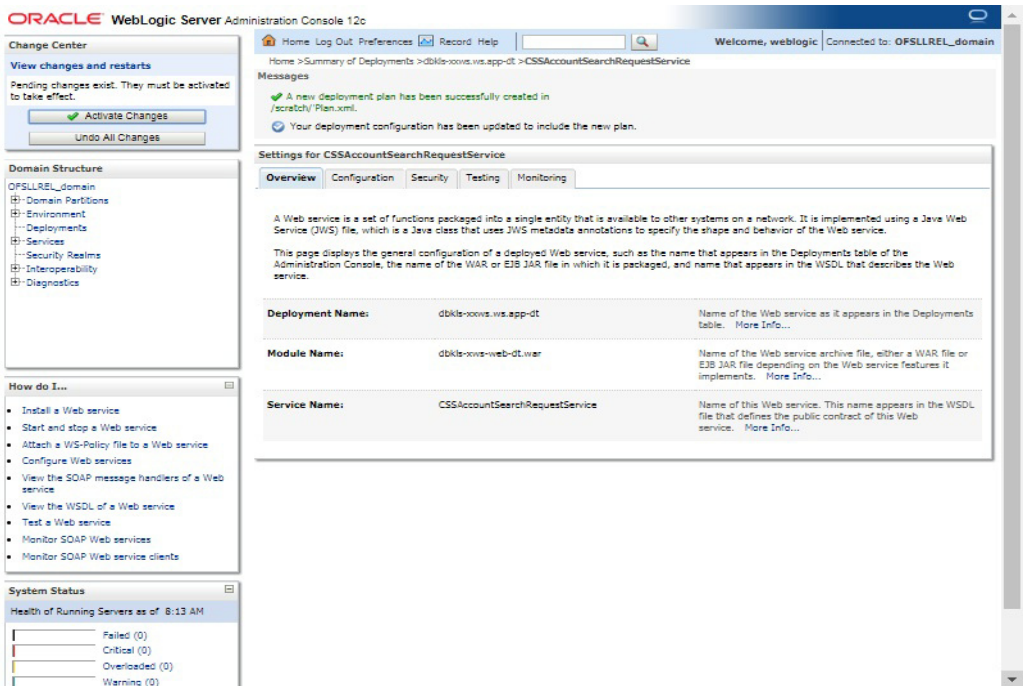
11. Select 'policy:Wssp1.2-Https-UsernameToken-Plain.xml' and click right arrow to move it to the selected policies list.



12. Click 'OK'.



13. Browse to any folder to save Deployment Plan and click 'OK'.



- Now you will be not able to access the WSDL on http port. Following message will be shown when you access with http URL.

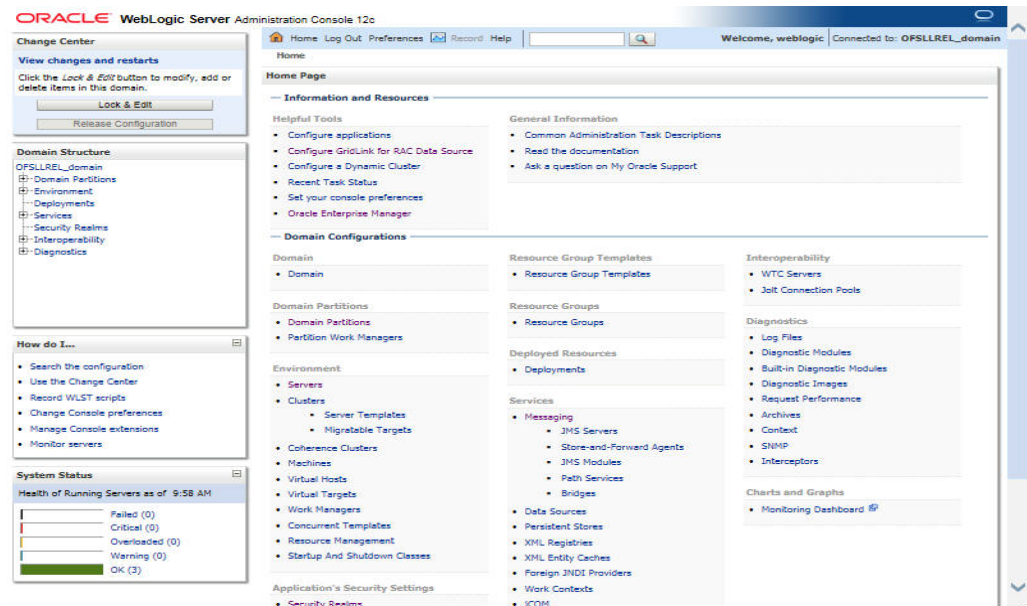
This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
<env:Envelope>
  <env:Header>
  <env:Body>
    <env:Fault>
      <faultcode>env:Client.Access</faultcode>
      <faultstring>SSL Required!</faultstring>
    </env:Fault>
  </env:Body>
</env:Envelope>
```

Note

For SSL communication, the vendor servers seek public certificates. Hence, you need to download the certificates from vendor website and import into your java keystore. You then need to configure Weblogic to present the certificates to vendor servers for successful handshake.

- Select the environment on the left pane. The following window is displayed.



16. Click 'Servers'.

ORACLE WebLogic Server Administration Console 12c

Home > Summary of Environment > Summary of Servers

Summary of Servers

A server is an instance of WebLogic Server that runs in its own Java Virtual Machine (JVM) and has its own configuration. This page summarizes each server that has been configured in the current WebLogic Server domain.

Servers (Filtered - More Columns Exist)

Click the **Lock & Edit** button in the Change Center to activate all the buttons on this page.

Name	Type	Cluster	Machine	State	Health	Listen Port
AdminServer(admin)	Configured			RUNNING	OK	9001
OFSLL_ManagedServer	Configured			RUNNING	OK	9003
WS_ManagedServer	Configured			RUNNING	OK	9004

17. Select the Server into which the WebServices are deployed.

ORACLE WebLogic Server Administration Console 12c

Home > Summary of Environment > Summary of Servers > WS_ManagedServer

Settings for WS_ManagedServer

Configuration Protocols Logging Debug Monitoring Control Deployments Services Security Notes

General Cluster Services **Keystores** SSL Federation Services Deployment Migration Tuning Overload

Concurrency Health Monitoring Server Start Web Services Coherence

Click the **Lock & Edit** button in the Change Center to modify the settings on this page.

Save

Keystores ensure the secure storage and management of private keys and trusted certificate authorities (CAs). This page lets you view and define various keystore configurations. These settings help you to manage the security of message transmissions.

Keystores: Demo Identity and Demo Trust **Change**

Which configuration rules should be used for finding the server's identity and trust keystores? [More Info...](#)

Identity

Demo Identity Keystore: kssi://system/demoidentity The location of the demo identity keystore. [More Info...](#)

Demo Identity Keystore Type: kss The type of the demo identity keystore. Generally, this is JKS or KSS. [More Info...](#)

Demo Identity Keystore Passphrase: [REDACTED] The demo identity keystore's encrypted passphrase. This is read-only and changes will not be applied. [More Info...](#)

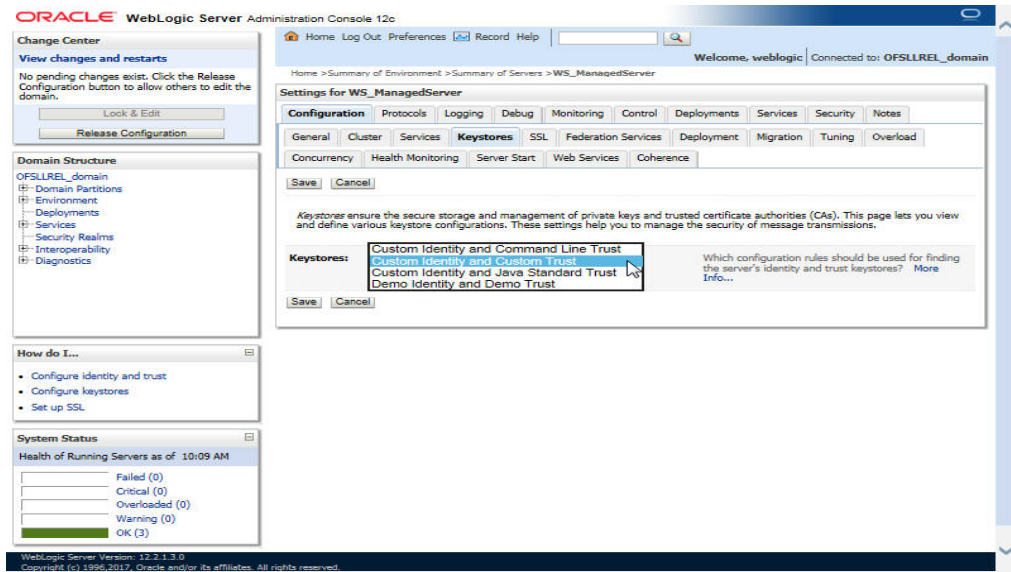
Trust

Demo Trust Keystore: kssi://system/trust The location of the demo trust keystore. [More Info...](#)

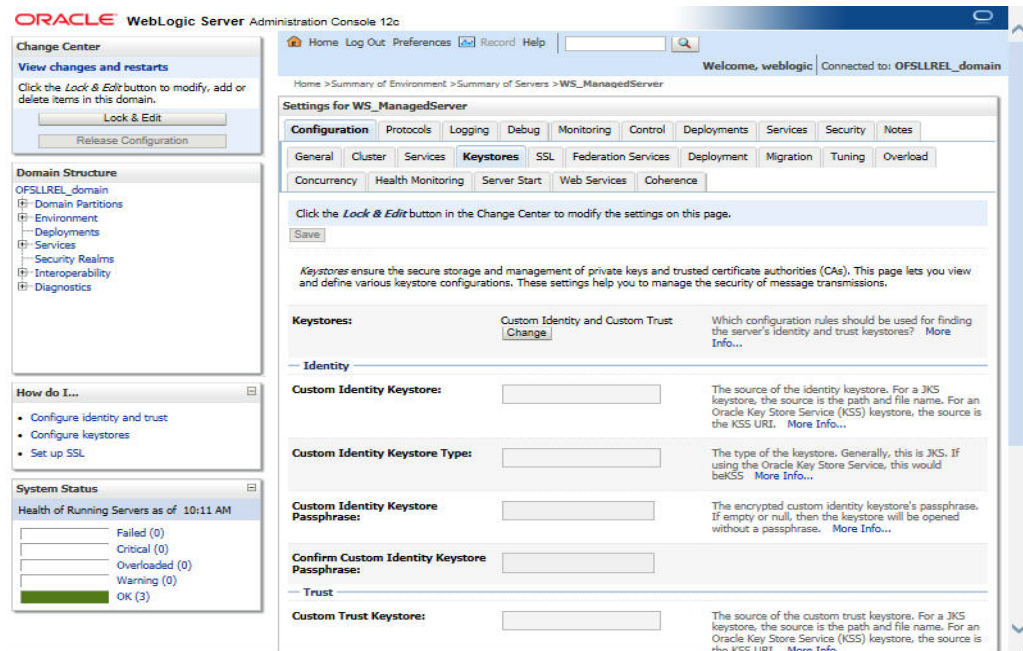
Demo Trust Keystore Type: kss The type of the demo trust keystore. Generally, this is JKS or KSS. [More Info...](#)

Demo Trust Keystore Passphrase: [REDACTED] The demo trust keystore's encrypted passphrase. This is read only and changes will not be applied. [More Info...](#)

18. Select 'Keystores'.



19. Click 'Change' and select 'Custom Identity and Custom trust' from the drop-down list.



Specify

- Custom Identity Keystore: **Java keystore holding the certificates**
- Custom Trust Keystore: **Java keystore holding the certificates**
- Custom Identity Keystore Type: **jks**
- Custom Trust Keystore Type: **jks**
- %Keystore Passphrases: keystore password

20. Click **Save**. The WSDL can be accessed on https port as below. The WS-Policy will be shown in WSDL.

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
▼<wL5G3N0:definitions xmlns="" xmlns:wL5G3N0="http://schemas.xmlsoap.org/wsdl/"
xmlns:wL5G3N1="http://www.w3.org/2001/XMLSchema"
xmlns:wL5G3N2="http://com.ofss.f11.xws.xcs/AccountSearch.wsdl"
xmlns:wL5G3N3="http://schemas.xmlsoap.org/wsdl/soap/" name="CSSAccountSearchRequestService"
targetNamespace="http://com.ofss.f11.xws.xcs/AccountSearch.wsdl">
  ▼<wL5G3N0:types>
    <xsd:schema xmlns="http://www.w3.org/2001/XMLSchema" xmlns:SOAP-
ENC="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:ns1="http://com.ofss.f11.xws.xcs/ICSSAccountSearchRequestService.xsd"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:tns="http://com.ofss.f11.xws.xcs/AccountSearch.wsdl" xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://com.ofss.f11.xws.xcs/ICSSAccountSearchRequestService.xsd"/>
  </wL5G3N0:types>
  ▼<wL5G3N0:message name="doAccountSearchStr0Request">
    <wL5G3N0:part name="requestStr" type="wL5G3N1:string"/>
  </wL5G3N0:message>
  ▼<wL5G3N0:message name="doAccountSearchStr0Response">
    <wL5G3N0:part name="return" type="wL5G3N1:string"/>
  </wL5G3N0:message>
  ▼<wL5G3N0:portType name="AccountSearchRequestService">
    ▼<wL5G3N0:operation name="doAccountSearch">
      <wL5G3N0:input message="wL5G3N2:doAccountSearchStr0Request" name="doAccountSearchStr0Request"/>
      <wL5G3N0:output message="wL5G3N2:doAccountSearchStr0Response" name="doAccountSearchStr0Response"/>
    </wL5G3N0:operation>
  </wL5G3N0:portType>
  ▼<wL5G3N0:binding name="CSSAccountSearchRequestService" type="wL5G3N2:AccountSearchRequestService">
    <wL5G3N3:binding style="rpc" transport="http://schemas.xmlsoap.org/soap/http"/>
    ▼<wL5G3N0:operation name="doAccountSearch">
      <wL5G3N3:operation style="rpc"/>
      ▼<wL5G3N0:input name="doAccountSearchStr0Request">
        <wL5G3N3:body namespace="CSSAccountSearchRequestService" use="literal"/>
      </wL5G3N0:input>
      ▼<wL5G3N0:output name="doAccountSearchStr0Response">
        <wL5G3N3:body namespace="CSSAccountSearchRequestService" use="literal"/>
      </wL5G3N0:output>
    </wL5G3N0:operation>
  </wL5G3N0:binding>
</wL5G3N0:definitions>
```

Apply WS-Policy policy:Wssp1.2-Https-UsernameToken-Plain.xml to the following WebServices.

- CSSAccountDetailsRequestService
- CSSAccountPayOffQuoteRequestService
- CSSAccountSearchRequestService
- CSSPostTransactionsRequestService

5. Verifying Successful Installation

5.1 Steps to Verify Successful Webservices deployment:

1. Ensure that the state is ACTIVE and health is OK in the Weblogic
2. Accessing the WSDL using: `http://<hostname>:<port>/<context root>/CSSAccountDetailsRequestService?WSDL` and receiving error: "No valid XML found"

5.2 Steps to Verify Successful Interface (Route One) deployment:

1. Ensure that the state is ACTIVE and health is OK in the Weblogic
2. Accessing the interface URLs mentioned below from the browser and receiving error: "No valid XML found":
 - "`http://<hostname>:<port>/<context root>/postdt2xws?xaeprc`"
 - "`http://<hostname>:<port>/<context root>/postds2xws?xaeprc`"
 - "`http://<hostname>:<port>/<context root>/postro2xws?xaeprc`"

6. Enable Logging

6.1 Enabling WebService Log

It is not recommended to enable WebServices log while running in production environment. The logging should be enabled in production only for debugging purpose by following the below mentioned steps.

1. The log file path has to be specified in 'logging.properties' file.
2. The file is available inside config folder. Navigate to dbkls-xxws.ws.app-dt.ear/dbkls-xws-web-dt.war/WEB-INF/classes/config/
 - Edit the following with the log file path:
java.util.logging.FileHandler.pattern=<Path>/dbkls_xws_%g.log
3. Restart the managed server (in which services are deployed) with the following argument:

Type	Description
Argument	Djava.util.logging.config.file=<Path of the above logging.properties file>/logging.properties
Example	nohup ./startManagedWebLogic.sh - Djava.util.logging.config.file=<Path of the above logging.properties file>/logging.properties &

4. The login levels can be set through the logging.properties file. Un-comment the level required in the logging.properties file
 - #com.ofss.fll.xws.level=FINEST
 - #com.ofss.fll.xws.level=FINER
 - #com.ofss.fll.xws.level=FINE
 - #com.ofss.fll.xws.level=CONFIG
 - #com.ofss.fll.xws.level=INFO

6.2 Enabling SQL Log for WebServices Component

It is not recommended to enable WebServices SQL log while running in production environment. The logging should be enabled in production only for debugging purpose by following the below mentioned steps:

1. The CMN_DEBUG_LEVEL system parameter should be enabled and set to appropriate non-zero value.
2. The CMN_DEBUG_METHOD system parameter should be enabled and set to appropriate non-zero value.

3. The respective package debug level for the webservice should be enabled and set to appropriate non-zero value in system parameter. Please refer the below table to for the service and debug level mapping.

Service			
DialerIntegrator: xcsadi_em_100_01	To receive loan application from dealer track: XAEPRC_EM_100_01	To receive edocs application update : XAE-EDS_EM_100_01	To receive loan application from route one: XAE-PRC_EM_100_01
CSSAccountDetailsRequestService: XCSPRC_EM_100_01	To receive loan application/deal update from dealer track: XAEUPD_EM_100_01	To receive edocs comment update : XAE-EDS_EM_100_01	To receive loan application/deal refresh from route one : XAEUPD_EM_100_01
CSSAccountSearchRequestService: XCSACS_EM_100_01	To receive comments from dealer track : XAEPRC_EM_100_01	To receive edocs location update : XAE-EDS_EM_100_01	To receive comments from route one: XEAUPD_EM_100_01
CSSPostTransactionsRequestService: XCSUPD_EM_100_01	To post comments to dealer track: XAECHK_EM_100_01		To post comments to route one: XAECHK_EM_100_01
CSSAccountPayOffQuoteRequestService: N/A	To post application status to dealer track: XAECHK_EM_100_01		To post application status to route one: XAECHK_EM_100_01
LOSeApplicationRequestService: XAE-EDS_EM_100_01	To post dealer details to dealer track: XPR-PRC_EM_100_01		To post dealer details to dealer track: XPR-PRC_EM_100_01
LOSApplicationRequestService: XAE-PRC_EM_100_01			
LOSApplicationSearchRequestService: XAE-QUE_EM_100_01			
LOSApplicationLocationUpdateService: XAE-EDS_EM_100_01			

Service			
LOSApplication-CommentUpdate-Service: XAE-EDS_EM_100_01			
LOSPostStatusRequestService: XAECH-K_EM_100_01			
LOSApplicationUpdateService: XAEUP-D_EM_100_01			
LOSCheckStatusRequestService: XAECH-K_EM_100_01			
LOSEcontractService: XACPRC_EM_100_01			

7. Configuring RESTful WebService

Follow the below steps to configure RESTful WebService.

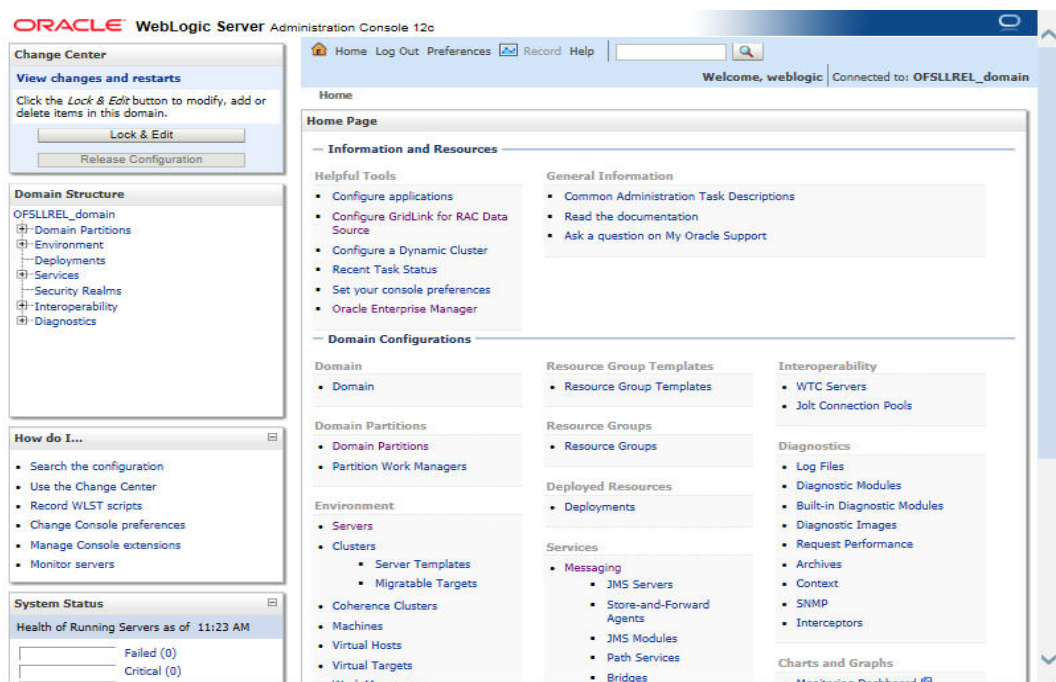
- [Create Data Sources for RESTful WebService](#)
- [OAuth Implementation](#)
- [Deploy RESTful WebService](#)
- [Deploy RESTful Credit Bureau WebService](#)

7.1 Create Data Sources for RESTful WebService

1. Login to Oracle Weblogic 12c console (<http://hostname:port/console>).



2. On successful login, the following window is displayed.



3. Click Domain Name > Services > Data Sources. The following window is displayed.

ORACLE WebLogic Server Administration Console 12c

Home > Summary of JDBC Data Sources

Welcome, weblogic | Connected to: OFSLLREL_domain

Summary of JDBC Data Sources

Configuration | Monitoring

A JDBC data source is an object bound to the JNDI tree that provides database connectivity through a pool of JDBC connections. Applications can look up a data source on the JNDI tree and then borrow a database connection from a data source.

This page summarizes the JDBC data source objects that have been created in this domain.

Customize this table

Data Sources (Filtered - More Columns Exist)

Click the **Lock & Edit** button in the Change Center to activate all the buttons on this page.

New | Delete | Showing 1 to 9 of 9 | Previous | Next

Name	Type	JNDI Name	Targets
AQ-JMS-DB	Generic	jdbc/aqjmsdb	OFSLL_ManagedServer
jdbc/dbk105nIEJBDS	Generic	jdbc/dbk105nIEJBDS	WS_ManagedServer
LocalSvcTbDataSource	Generic	jdbc/LocalSvcTbDataSource	AdminServer
mds-adf	Generic	jdbc/mds/adf	AdminServer, OFSLL_ManagedServer
OFSLL	Generic	jdbc/ofslIDBConnDS	AdminServer, OFSLL_ManagedServer
opss-audit-DBDS	Generic	jdbc/AuditAppendDataSource	AdminServer, OFSLL_ManagedServer, WS_ManagedServer
opss-audit-viewDS	Generic	jdbc/AuditViewDataSource	AdminServer, OFSLL_ManagedServer, WS_ManagedServer
opss-data-source	Generic	jdbc/OpssDataSource	AdminServer, OFSLL_ManagedServer, WS_ManagedServer
WLSSchemaDataSource	Generic	jdbc/WLSSchemaDataSource	AdminServer, OFSLL_ManagedServer, WS_ManagedServer

New | Delete | Showing 1 to 9 of 9 | Previous | Next

4. Click 'Lock & Edit' button on the left panel. Click 'New' on right panel and select 'Generic Data Source'.

ORACLE WebLogic Server Administration Console 12c

Home > Summary of JDBC Data Sources

Welcome, weblogic | Connected to: OFSLLREL_domain

Summary of JDBC Data Sources

Configuration | Monitoring

A JDBC data source is an object bound to the JNDI tree that provides database connectivity through a pool of JDBC connections. Applications can look up a data source on the JNDI tree and then borrow a database connection from a data source.

This page summarizes the JDBC data source objects that have been created in this domain.

Customize this table

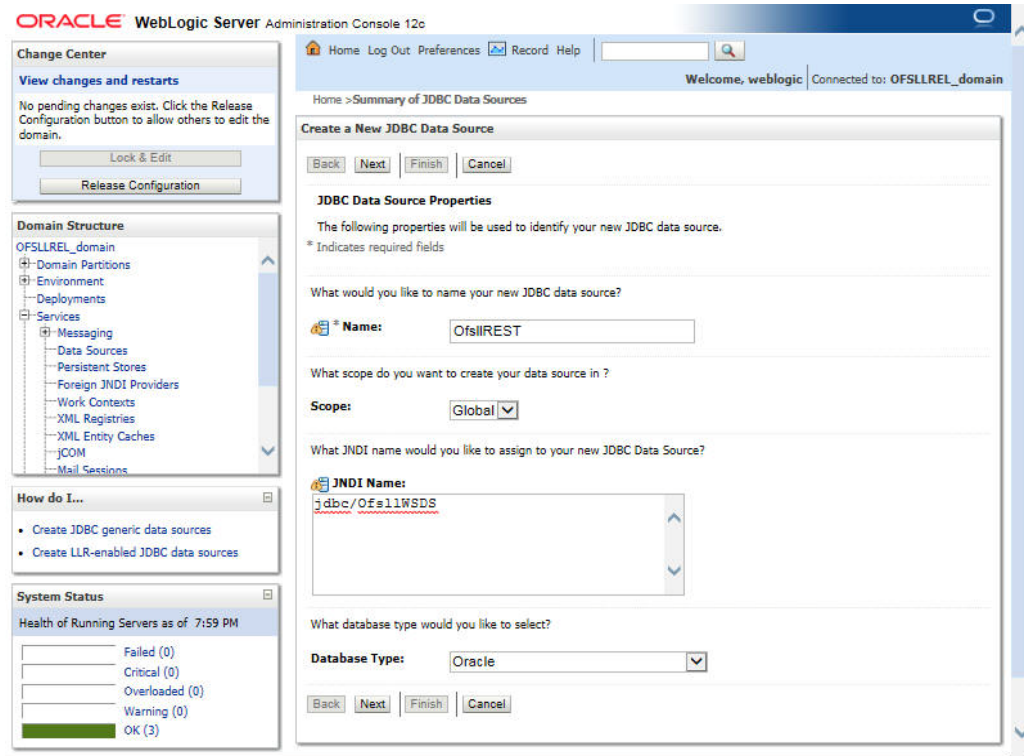
Data Sources (Filtered - More Columns Exist)

New | Delete | Showing 1 to 9 of 9 | Previous | Next

Name	Type	JNDI Name	Targets
Generic Data Source			
GridLink Data Source			
Multi Data Source	Generic	jdbc/aqjmsdb	OFSLL_ManagedServer
Proxy Data Source	Generic	jdbc/dbk105nIEJBDS	WS_ManagedServer
UCP Data Source	Generic	jdbc/LocalSvcTbDataSource	AdminServer
mds-adf	Generic	jdbc/mds/adf	AdminServer, OFSLL_ManagedServer
OFSLL	Generic	jdbc/ofslIDBConnDS	AdminServer, OFSLL_ManagedServer
opss-audit-DBDS	Generic	jdbc/AuditAppendDataSource	AdminServer, OFSLL_ManagedServer, WS_ManagedServer
opss-audit-viewDS	Generic	jdbc/AuditViewDataSource	AdminServer, OFSLL_ManagedServer, WS_ManagedServer
opss-data-source	Generic	jdbc/OpssDataSource	AdminServer, OFSLL_ManagedServer, WS_ManagedServer
WLSSchemaDataSource	Generic	jdbc/WLSSchemaDataSource	AdminServer, OFSLL_ManagedServer, WS_ManagedServer

New | Delete | Showing 1 to 9 of 9 | Previous | Next

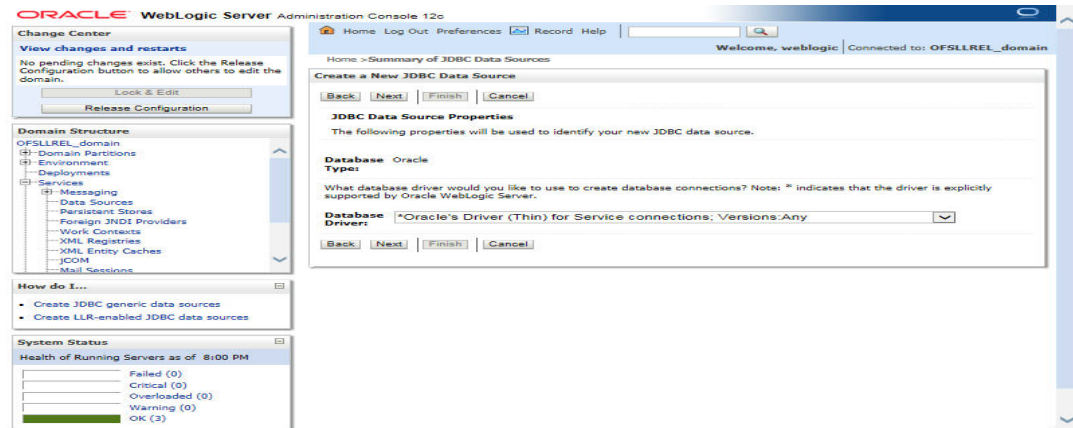
5. The following window is displayed.



6. Specify the following details:

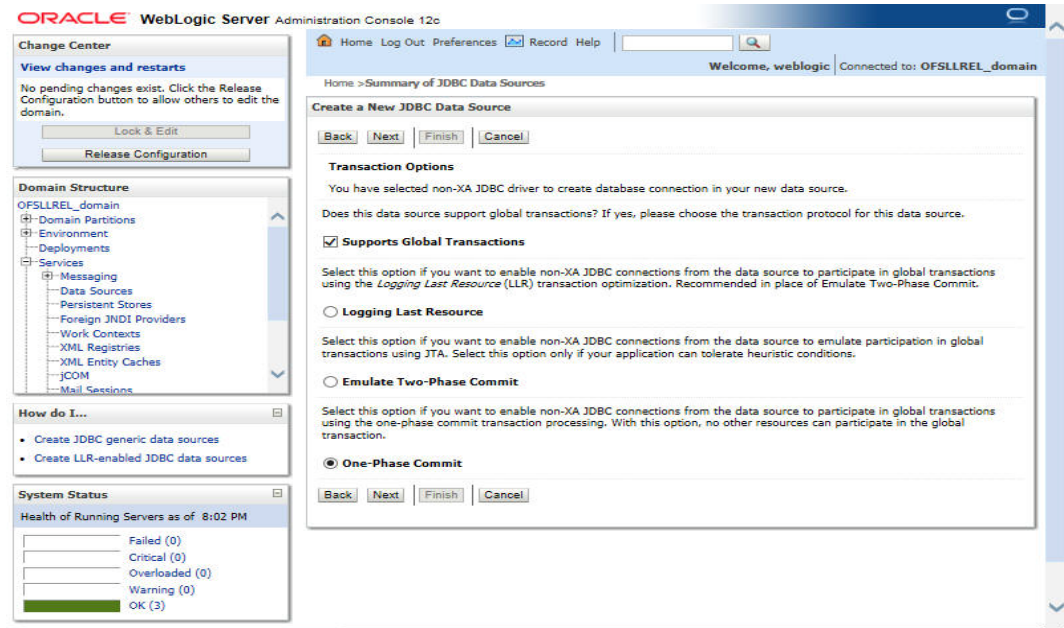
- Enter Data source Name
- Enter the JNDI Name as 'jdbc/OfsIIWSDS'.
- Select 'Oracle' as Database Type.

7. Click 'Next'. The following window is displayed.

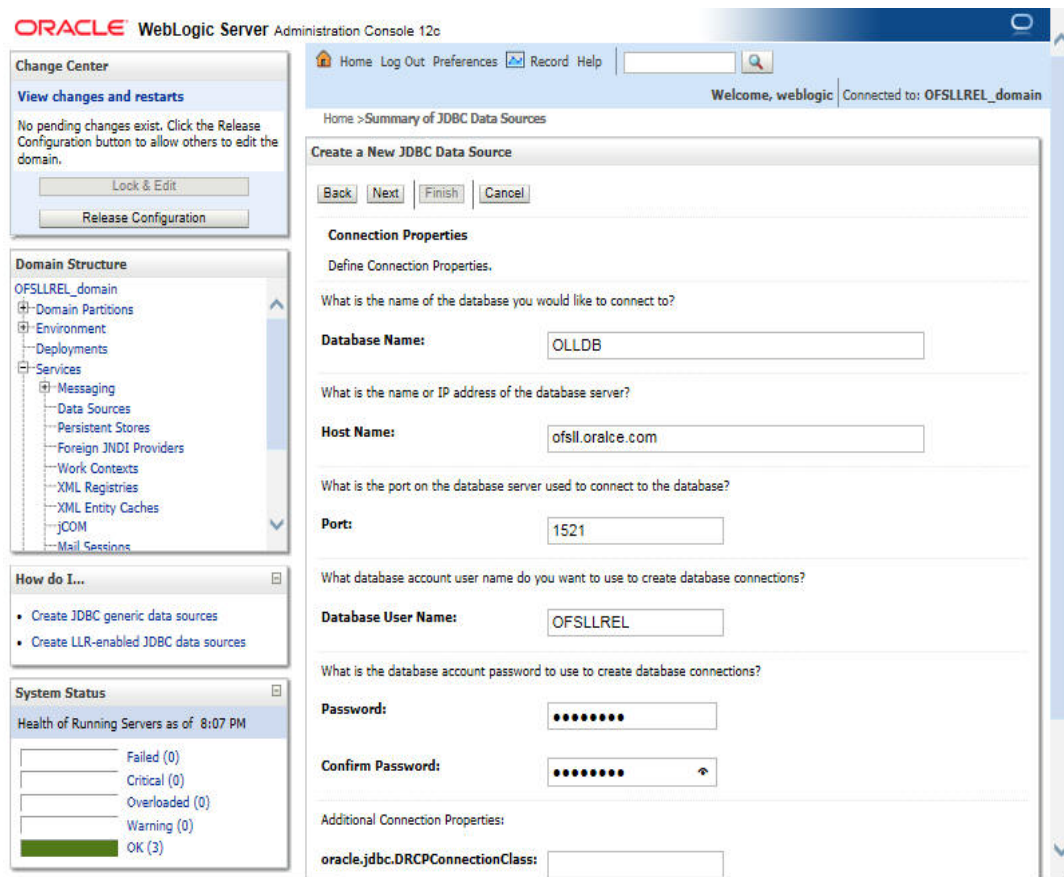


8. Select the Database Driver 'Oracle's Driver(Thin) for Services connections;Versions:Any'.

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



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



11. Enter the Database details.

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

The screenshot shows the Oracle WebLogic Server Administration Console. The main window is titled 'Create a New JDBC Data Source' and is in the 'Test Database Connection' step. The 'Test Configuration' button is highlighted. The 'Driver Class Name' field contains 'oracle.jdbc.OracleDriver'. The 'URL' field contains 'jdbc:oracle:thin:@//ofssl.oracle.com:1521/OLLDB'. The 'Database User Name' field contains 'OFSSLREL'. The 'Password' field is masked with dots. The 'Confirm Password' field is also masked with dots. The 'Properties' field is empty. On the left side, there are three panels: 'Change Center', 'Domain Structure', and 'System Status'. The 'Domain Structure' panel shows a tree view with 'OFSSLREL_domain' expanded to 'Services' > 'Data Sources'. The 'System Status' panel shows the health of running servers as of 8:07 PM, with 3 servers in 'OK' status.

13. Click 'Test Configuration'. On completion, displays a confirmation message as 'Connection test succeeded'.

14. Click 'Next'. The following window is displayed.

The screenshot shows the Oracle WebLogic Server Administration Console. The main window is titled 'Create a New JDBC Data Source' and is in the 'Select Targets' step. The 'Select Targets' section has a sub-header 'Servers' and a list of servers with checkboxes: 'AdminServer' (unchecked), 'OFSSL_ManagedServer' (unchecked), and 'WS_ManagedServer' (checked). The 'Next' button is highlighted. On the left side, there are three panels: 'Change Center', 'Domain Structure', and 'System Status'. The 'Domain Structure' panel shows a tree view with 'OFSSLREL_domain' expanded to 'Services' > 'Data Sources'. The 'System Status' panel shows the health of running servers as of 8:11 PM, with 3 servers in 'OK' status.

15. Select target Server as 'WS_ManagedServer'.

16. Click Advanced button and update the 'Inactive Connection Timeout' to 300 seconds.

17. Click 'Finish' to activate the changes.

7.2 OAuth Implementation

(Optional) To extend OFSLL SaaS, OAuth2 can be used for securing OFSLL web services user access Authentication.

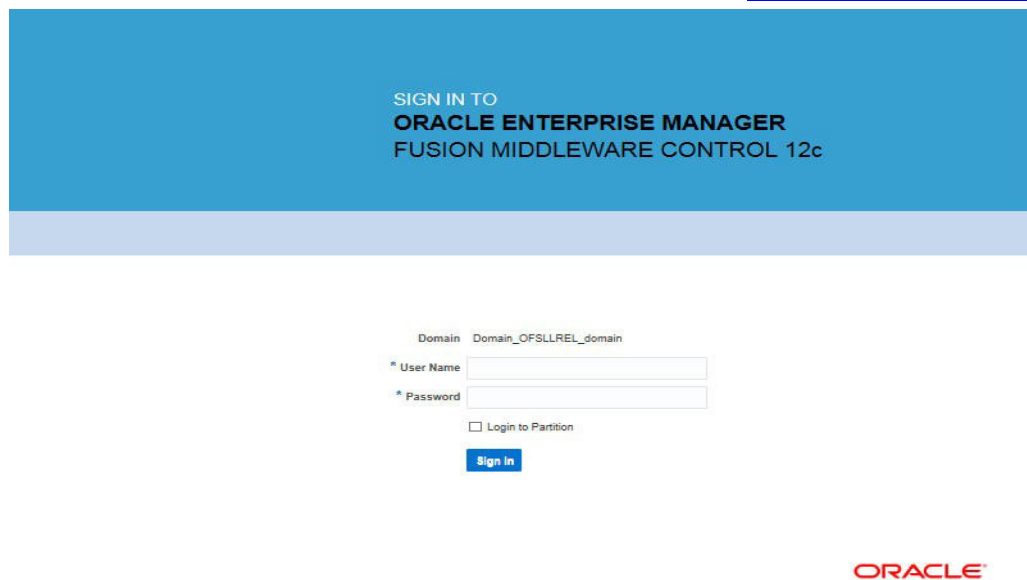
Web services authentication using OAuth2 is one of the best approach for securing user authentication to extend OFSLL SaaS. This uses Oracle / Non-Oracle PaaS to authenticate service access request from an external partner application without sharing OFSLL environment access credentials (UID / Password) and leverages the built-in support for OAuth 2.0.

OAuth 2.0 is an open standard token-exchange technology for verifying a user's identity across multiple systems and domains without risking the exposure of a password.

For detailed information, refer to the OAuth Implementation guide shared in OTN library: https://docs.oracle.com/cd/F22291_01/references.htm.

7.3 Deploy RESTful WebService

1. Login to Web Logic application server enterprise manager (e.g.:<http://hostname:port/em>)



SIGN IN TO
ORACLE ENTERPRISE MANAGER
FUSION MIDDLEWARE CONTROL 12c

Domain Domain_OFSSLREL_domain

* User Name

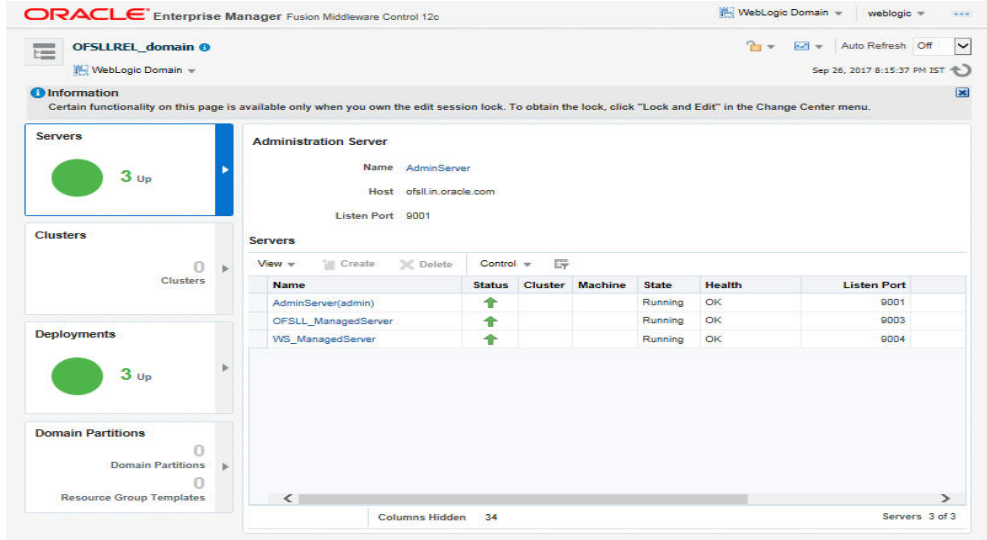
* Password

Login to Partition

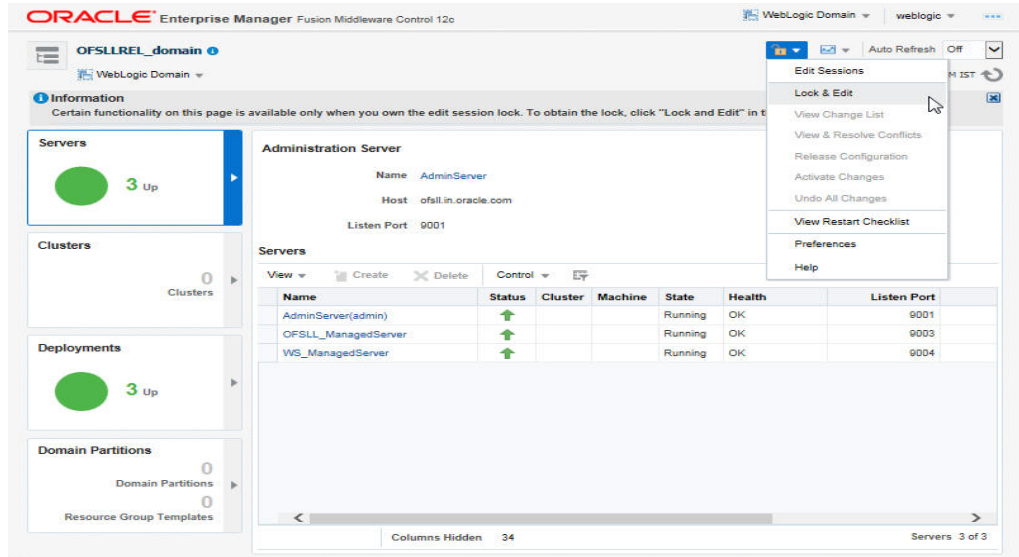
Sign In

ORACLE®

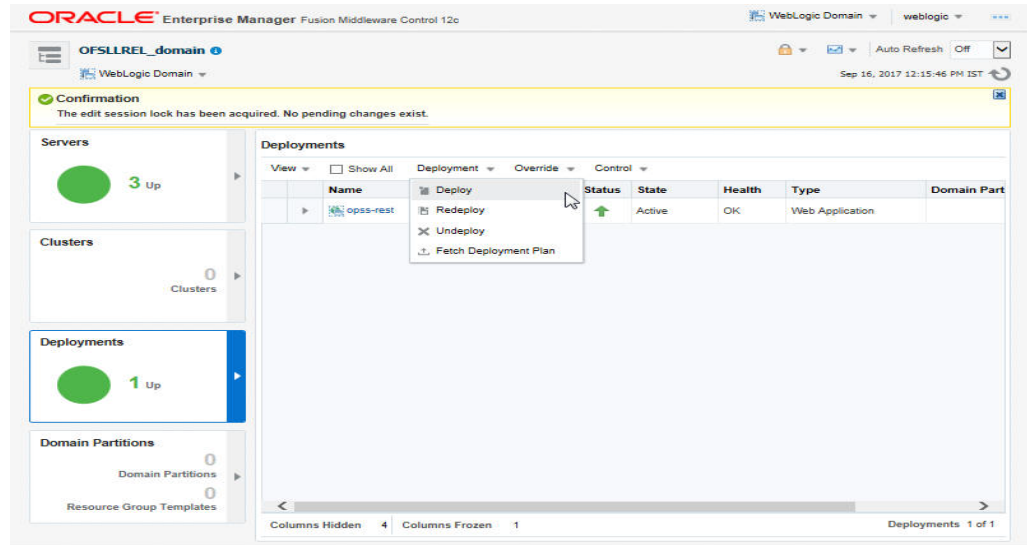
2. Enter valid login credentials. The following window is displayed.



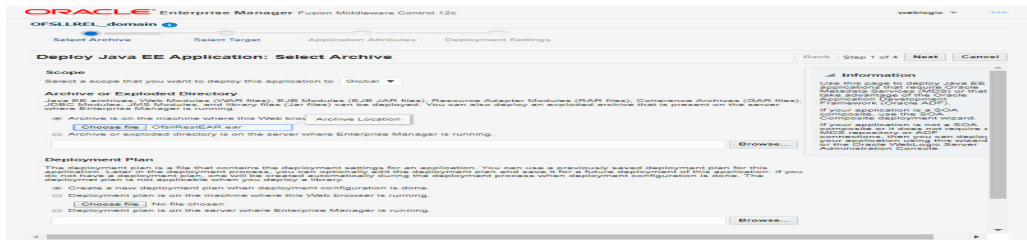
3. Select 'Lock & Edit' option in the lock drop-down list available in the header.
4. Click 'Deployment' in the left panel. The following window is displayed.



5. Select 'Deploy' from the Deployment drop-down list. The following window is displayed.

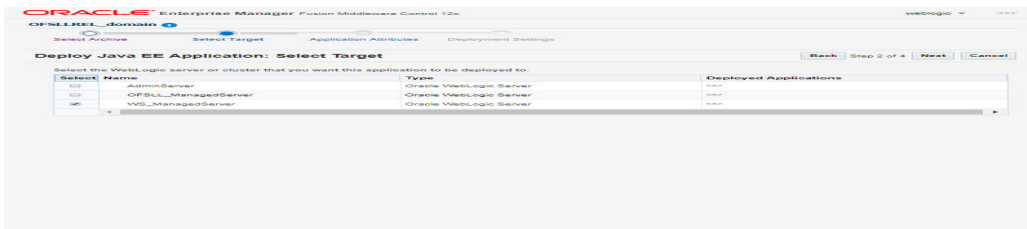


6. The following window is displayed.



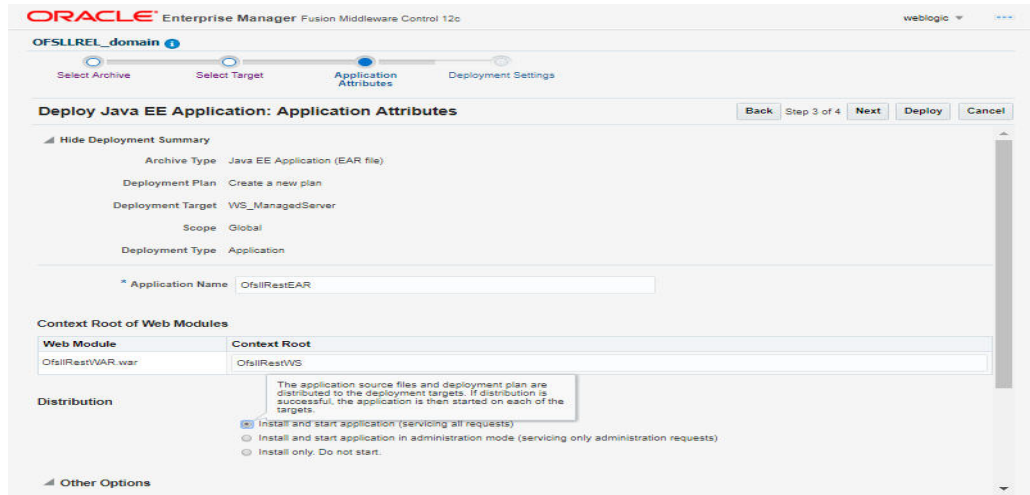
7. Browse to the folder containing the WebService. Eg: C:/OfsIIRestEAR.ear

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



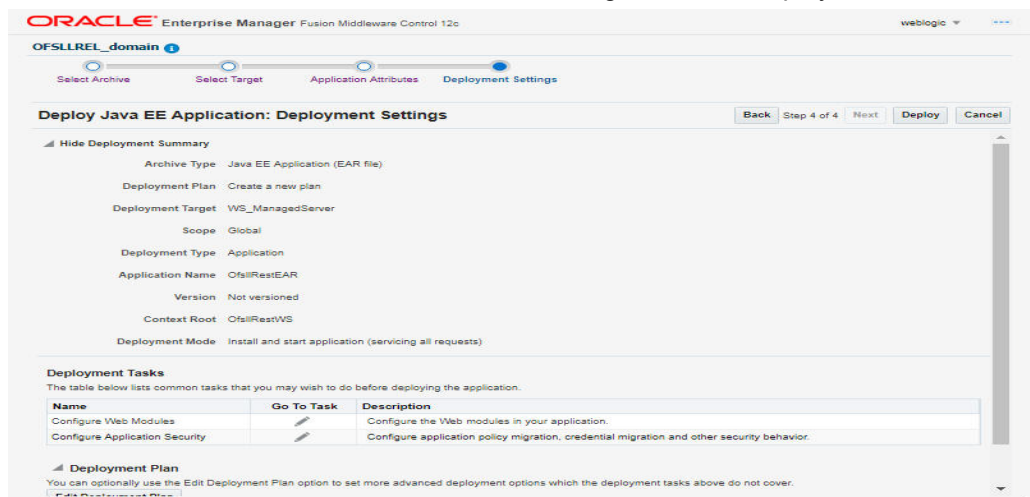
9. Select the server on which the WebService needs to be deployed.

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

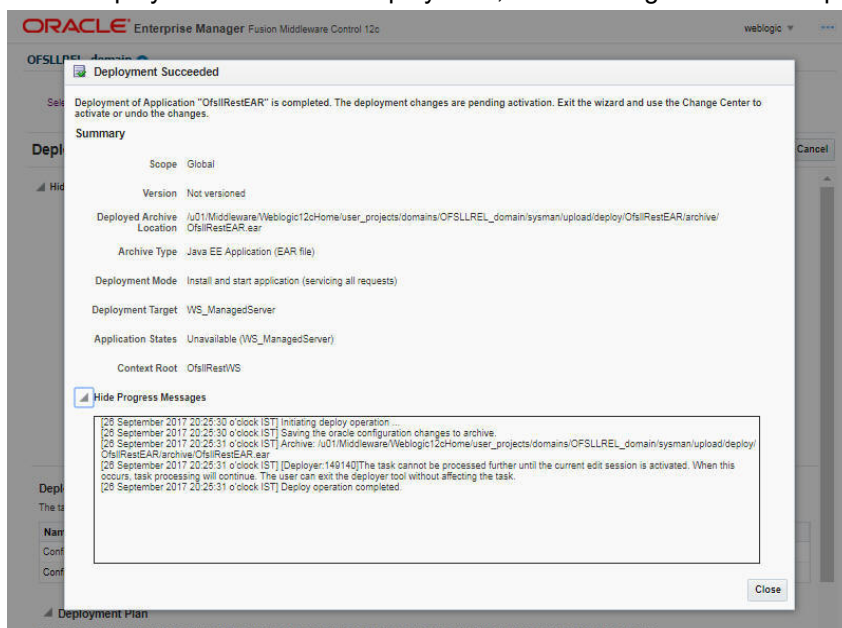


11. Select the option 'Install and start application (servicing all requests)'.

12. Check the context root and click 'Next'. The following window is displayed.



13. Click 'Deploy'. On successful deployment, the following window is displayed.



- Click 'Close'. Post deployment, you need to activate the changes by selecting 'Active Changes' option from 'Edit Session' drop-down list as indicated in step 4 above.

To Identify the RESTful Webservice URL

- Login to WebLogic Server 12c console (<http://hostname:port/console>).
- Click 'Deployments' Under Configuration tab and select 'OfsllRestEAR' services. The following window is displayed.

Summary of Deployments

Configuration Control Monitoring

This page displays the list of Java EE applications and standalone application modules installed to this domain.

You can update (redeploy) or delete installed applications and modules from the domain by selecting the checkbox next to the application name and then using the controls on this page.

To install a new application or module for deployment to targets in this domain, click **Install**.

Customize this table

Deployments

Install Update Delete Showing 31 to 40 of 61 Previous Next

<input type="checkbox"/>	Name	State	Health	Type	Targets	Scope	Domain Partitions	Deployment Order
<input type="checkbox"/>	odl.clickhistory (1.0,12.2.1)	Active		Library	AdminServer, OFSLL_ManagedServer, WS_ManagedServer	Global		100
<input type="checkbox"/>	odl.clickhistory.webapp (1.0,12.2.1)	Active		Library	AdminServer, OFSLL_ManagedServer, WS_ManagedServer	Global		100
<input type="checkbox"/>	OfsllQueueMDB	Active	OK	EJB	OFSLL_ManagedServer,	Global		100
<input type="checkbox"/>	OfsllRestEAR	Active	OK	Enterprise Application	WS_ManagedServer	Global		100

- Click 'Testing' tab and expand 'OfsllRestWS'. The following window is displayed.

Settings for OfsllRestEAR

Overview Deployment Plan Configuration Security Targets Control **Testing** Monitoring Notes

Some deployment types support test points you can use to verify that a deployment was successful and that the module is ready for use.

The following table includes all of the test points available for this application or module.

Deployment Tests

Showing 1 to 1 of 1 Previous Next

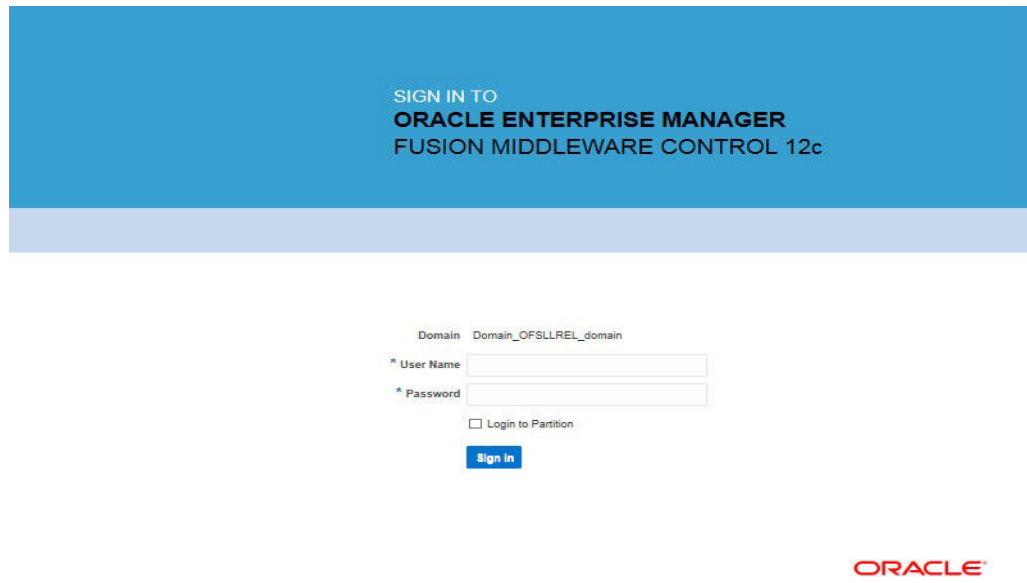
Name	Test Point	Comments
<input type="checkbox"/> OfsllRestEAR		
<input type="checkbox"/> OfsllRestWS		
/OfsllRestWS/rest	/application.wadl	WADL page on server WS_ManagedServer
/OfsllRestWS/service/api/resources	/application.wadl	WADL page on server WS_ManagedServer
default	http://10.184.132.155:8315/OfsllRestWS	Default url on server WS_ManagedServer

Showing 1 to 1 of 1 Previous Next

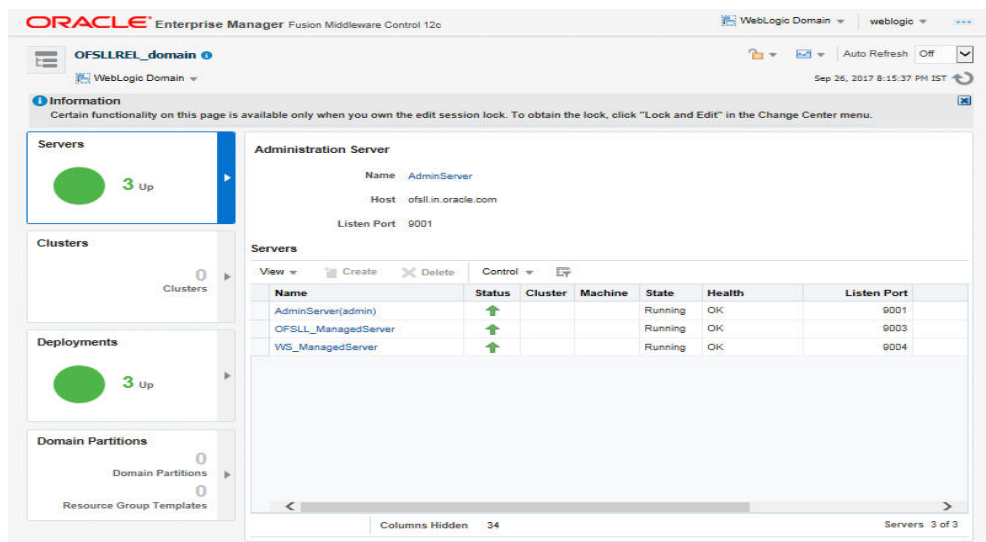
- You can view the 'OfsllRestful' Services URL as shown.
- Swagger documentation for RESTful web services can be accessed using the following URL type - `http://<server_name>;<port>/<Application_context>/swagger.json`

7.4 Deploy RESTful Credit Bureau WebService

1. Login to Web Logic application server enterprise manager (e.g.:<http://hostname:port/em>)

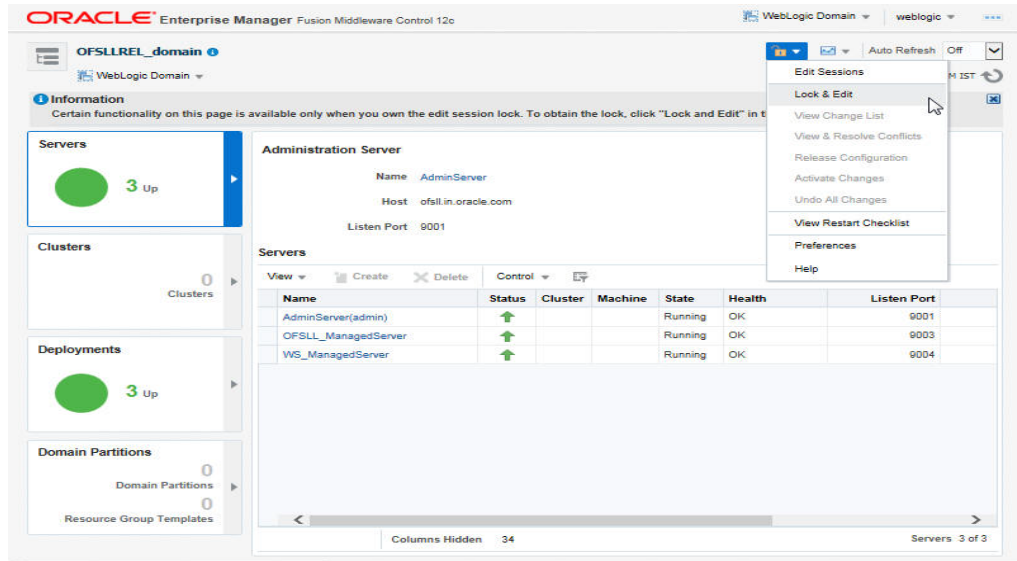


2. Enter valid login credentials. The following window is displayed.

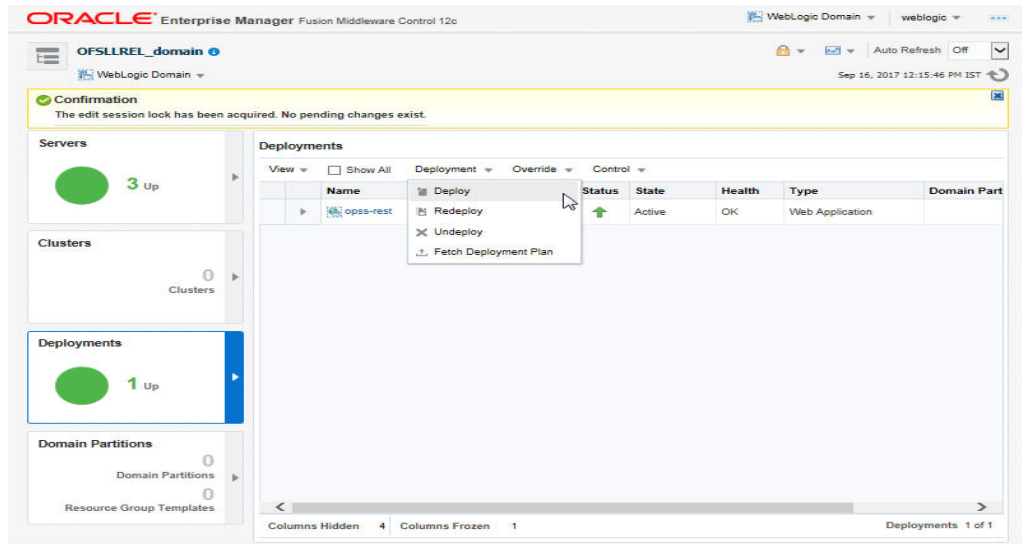


3. Select 'Lock & Edit' option in the lock drop-down list available in the header.

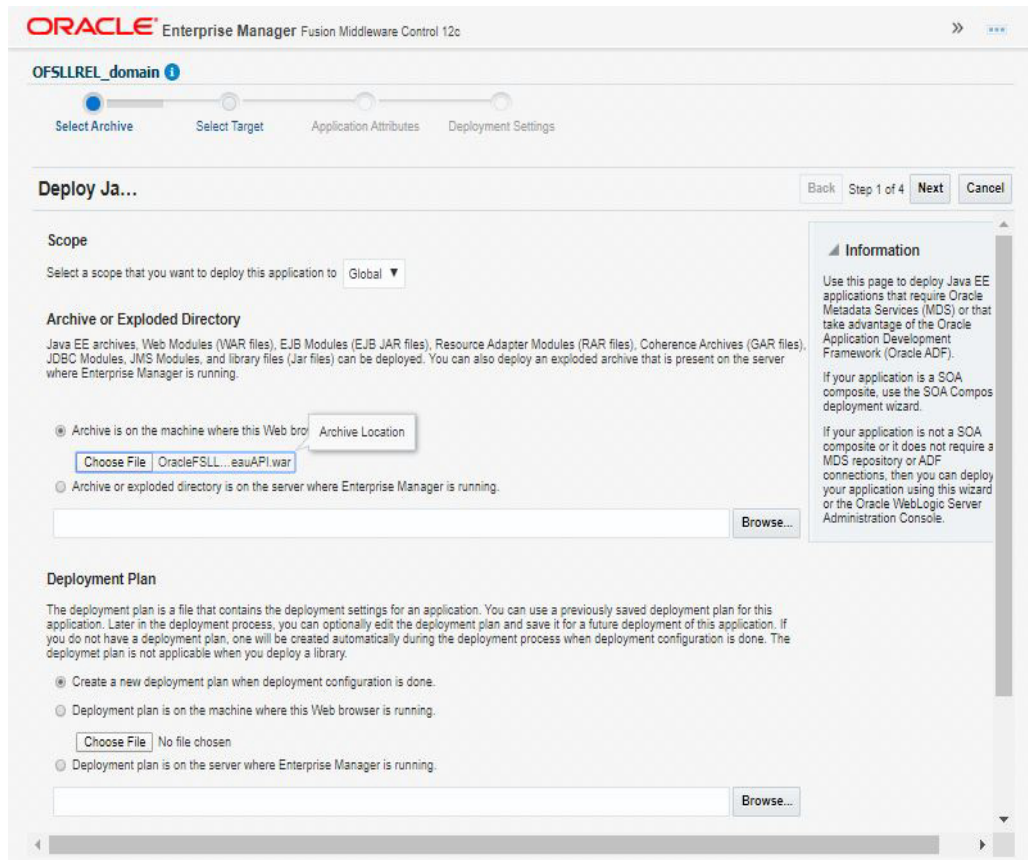
- Click 'Deployment' in the left panel. The following window is displayed.



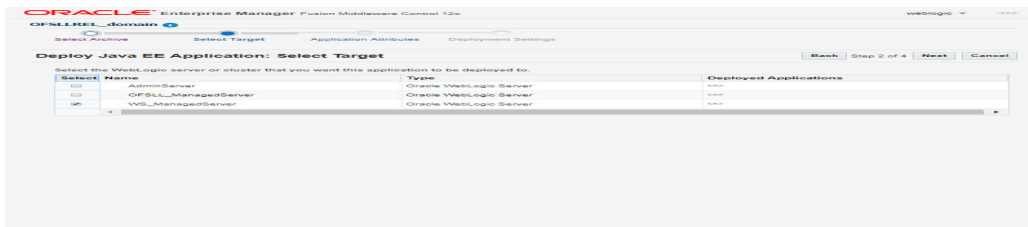
- Select 'Deploy' from the Deployment drop-down list. The following window is displayed.



- The following window is displayed.



- Browse to the folder containing the Credit Bureau WebService. For example: C:/OracleFSSLBureauAPI.war
- Click 'Next'. The following window is displayed.



- Select the server on which the WebService needs to be deployed.

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

ORACLE® Enterprise Manager Fusion Middleware Control 12c

OFSSLREL_domain

Select Archive Select Target **Application Attributes** Deployment Settings

Deploy Java... Back Step 3 of 4 Next Deploy Cancel

Hide Deployment Summary

Archive Type: Web Module (WAR file)

Deployment Plan: Create a new plan

Deployment Target: WS_ManagedServer

Scope: Global

Deployment Type: Application

* Application Name: OracleFSLLBureauAPI

Context Root of Web Modules

Web Module	Context Root
OracleFSLLBureauAPI.war	OracleFSLLBureauAPI

Distribution

The application source files and deployment plan are distributed to the deployment targets. If distribution is successful, the application is then started on each of the targets.

Install and start application (servicing all requests)

Install and start application in administration mode (servicing only administration requests)

Install only. Do not start.

Other Options

Application Use the defaults defined by the deployment's targets. Recommended selection.

11. Select the option 'Install and start application (servicing all requests)'.

12. Check the context root and click 'Next'. The following window is displayed.

ORACLE® Enterprise Manager Fusion Middleware Control 12c

OFSSLREL_domain

Select Archive Select Target Application Attributes **Deployment Settings**

Deploy Java... Back Step 4 of 4 Next Deploy Cancel

Hide Deployment Summary

Archive Type: Web Module (WAR file)

Deployment Plan: Create a new plan

Deployment Target: WS_ManagedServer

Scope: Global

Deployment Type: Application

Application Name: OracleFSLLBureauAPI

Version: Not versioned

Context Root: OracleFSLLBureauAPI

Deployment Mode: Install and start application (servicing all requests)

Deployment Tasks

The table below lists common tasks that you may wish to do before deploying the application.

Name	Go To Task	Description
Configure Application Security		Configure application policy migration, credential migration and other security behavior.

Deployment Plan

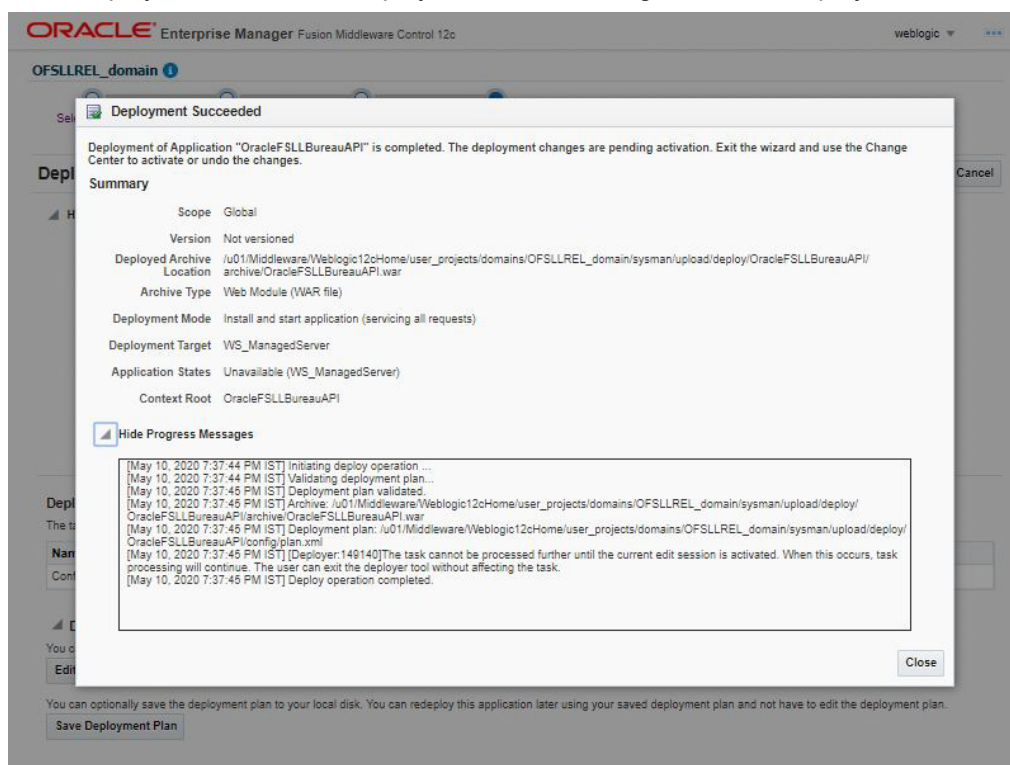
You can optionally use the Edit Deployment Plan option to set more advanced deployment options which the deployment tasks above do not cover.

[Edit Deployment Plan](#)

You can optionally save the deployment plan to your local disk. You can redeploy this application later using your saved deployment plan and not have to edit the deployment plan.

[Save Deployment Plan](#)

13. Click 'Deploy'. On successful deployment, the following window is displayed.



14. Click 'Close'. Post deployment, you need to activate the changes by selecting 'Active Changes' option from 'Edit Session' drop-down list as indicated in step 4 above.

7.4.1 Create Credentials and System Policies for Credit Bureau Interface

In order to Configure Credit Bureau interface, you need to create credentials and system policies. The credentials are accessed through CSF framework which is managed by Oracle Weblogic Server. The keys are managed by Maps and Maps need to be given with Permissions.

Create the following Maps and corresponding keys as indicated in following table.

Maps	Keys	Description
ofssl.int.bureau	creditbureau_auth_mode_adapter	There are two modes: BASIC - On selecting this option, you need to define User Name and Password to authenticate. OAUTH2.0 - On selecting this option, you need to define additional enabled fields such as Grant Type, Client Id, Client Secret, Identity Domain, Token and Header Key.
	creditbureau_adapter	If Authentication mode is selected as BASIC, specify the Basic Authentication User Name and Password.
	creditbureau_serviceurl_adapter	BureauApi or Third party RestAPI end point url.
	ProxyAuthenticationEnabled	Indicator used to validate proxy.

Maps	Keys	Description
	ProxyEnabled	Indicator is for whether Proxy server info need to be set or not.
	ProxyPort	Port to which ProxyServer is running.
	ProxyServer	Name of the proxyServer to be configured
	<Bureau_name>_cert_path	The location of certificate file which contains the valid certificate for Credit Bureau.
	<Bureau_name>_cert_password	The password that requires to read the valid certificate for the Credit Bureau.
	<Bureau Name>_consumer_code	Consumer credentials to be configured for request creation of third party.
	<Bureau Name>_token_indicator	Indicator used for whether third party token request needs to be create or not.
	<Bureau Name>_cert_check_indicator	Indicator used for whether certificate validation is required or not.

Note

For certificate creation, please refer to 'Interface_Certificate_Configuration.pdf' document available in the release bundle.

A. Appendix - Configuration parameters

Refer to the following section for details on configuration parameters.

Modifying Configuration Files

Route One Configuration

Property Name	Property Value	Description	Remarks
Configuration File: ro_servlet_init.conf			
LOSApplicationRequestServiceURL	http://<HOST NAME>:<PORT>/<CONTEXT ROOT>/LOSApplicationRequestService	URL for OFSLL New application WebService	Refer the recommended context root table for CONTEXT ROOT. Sample URL: http://host-name:port/dbkls-xws-app-ro/LOSApplicationRequestService
LOSApplicationUpdateServiceURL	http://<HOST NAME>:<PORT>/<CONTEXT ROOT>/LOSApplicationUpdateService	URL for OFSLL application update WebService	Refer the recommended context root table for CONTEXT ROOT. Sample URL: http://host-name:port/dbkls-xws-app-ro/LOSApplicationUpdateService
LOSEContractWebServiceURL	http://<local-host>:<port>/dbkls-xws-app-ro/LOSEContractService	URL to validate and receive the contract information	Refer the recommended context root table for CONTEXT ROOT. Sample URL: http://host-name:port/dbkls-xws-app-ro/LOSEContractService
keystoreLocation	config/dls_cacerts	Parameter to set keystore location	The keystore location should not be changed and keystore should be available in this location
postURL	https://messaging.itl.routeone.net/IF1_ITL/CASSB-MessagingReceiver	URL for posting acknowledgement message to Route one	Verify the URL with Route One
fileLocation	/tmp	temporary file directory	The directory for temporary files. Make sure that such directory exists on the deployment server
postTimeout	10	Parameter to set timeout value to post XML message to third party.	Timeout value should be specified in number of seconds.

Property Name	Property Value	Description	Remarks
useProxy	0	Parameter to switch on/off proxy use. By default use of proxy is switched off. To use proxy setup value to "1", else setup value as "0"	
proxyHost	abc.com	Parameter to set proxy host. This is required if useProxy is set to 1.	
proxyPort	80	Parameter to set proxy port. This is required if useProxy is set to 1.	
Configuration File: dbkws_xae_init.conf			
lenderId	SOME-LENDER_ID	The finance source identifier used in the dealer file	SOMELENDER_ID is a sample value
lenderName	SOME_LENDER_NAME	The finance source name used in the dealer file	SOME_LENDER_NAME is a sample value
application-Source	ROUTEONE	Parameter to set application source	Don't modify this value
dealerElementName	DEALER_DETAILS	Name of XML element used for the dealer details used in the dealer file	DEALER_DETAILS is a sample value
fileLocation	/tmp		The directory for temporary files. Make sure that such directory exists on the deployment server
fileDelimiter	,	Delimiter used in dealer header file	Needed only for Route-One
jndiLookupDataSource	jdbc/IN1Huk-WznG0b4esj	Parameter that defines the JNDI look up for the applicaton datasource	Don't modify the value
keystoreLocation	config/dls_cacerts	Parameter to set location for public/private key store for HTTPS posting and for XML Digital Signature	The keystore location should not be changed and keystore should be available in this location

Property Name	Property Value	Description	Remarks
postTimeout	10	Parameter to set timeout value to post XML message to third party.	Timeout value should be specified in number of seconds.
useProxy	0	Parameter to switch on/off proxy use. By default use of proxy is switched off. To use proxy setup value to "1", else setup value as "0"	
proxyHost	abc.com	Parameter to set proxy host. This is required if useProxy is set to 1.	
proxyPort	80	Parameter to set proxy port. This is required if useProxy is set to 1.	
Configuration File: dbkws_xec_init.conf			
jndiLookupDataSource	jdbc/IN1Huk-WznG0b4esj	Parameter that defines the JNDI look up for the applicaton datasource	Don't modify the value
Configuration File: dbkws_xcl_init.conf			
lenderId	SOME-LENDER_ID	The finance source identifier used in the dealer file	SOMELENDER_ID is a sample value
lenderName	SOME_LENDER_NAME	The finance source name used in the dealer file	SOME_LENDER_NAME is a sample value
dealerElementName	DEALER_DETAILS	Name of XML element used for the dealer details used in the dealer file	DEALER_DETAILS is a sample value
fileLocation	/tmp		The directory for temporary files. Make sure that such directory exists on the deployment server
fileDelimiter	,	Delimiter used in dealer header file	

Property Name	Property Value	Description	Remarks
jndiLookupDataSource	jdbc/dbk105nE-JBDS	Parameter that defines the JNDI look up for the applicaton datasource	Don't modify the value
keystoreLocation	config/dls_cacerts	Parameter to set location for public/private key store for HTTPS posting and for XML Digital Signature	The keystore location should not be changed and keystore should be available in this location
keystorePassword	changeit	The keystore password	The deafult password is "changeit". Modify the property in case the password is different for the keystore.
sscroKeyAlias	ofss_routone	OFSLL's private key alias name. The private key is used to sign xml response to RouteOne	You may import the private key with alias "ofss_routone" else modify the property value to alias used while importing the private key into keystore.
sscroKeyPassword	demotestSSCR1	OFSLL's private key password	demotestSSCR1 is a sample value
Configuration File: Logging.properties			
handlers	java.util.logging.FileHandler, java.util.logging.ConsoleHandler		
java.util.logging.FileHandler.level	ALL		
java.util.logging.FileHandler.pattern	/somewhere/logs/dbkls_xws_%g.log		
java.util.logging.FileHandler.limit	1000000		
java.util.logging.FileHandler.count	4		

Property Name	Property Value	Description	Remarks
java.util.logging.FileHandler.append	true		
java.util.logging.FileHandler.formatter	java.util.logging.SimpleFormatter		
java.util.logging.ConsoleHandler.level	WARNING		
java.util.logging.ConsoleHandler.formatter	java.util.logging.SimpleFormatter		
com.ofss.fll.xws.level	FINER	set the logging level for the application	Other Level values -- FINEST,FINE,CONFIG and INFO

Dealer Track

Property Name	Property Value	Description	Remarks
Configuration File: dt_servlet_init.conf			
LOSApplicationRequestServiceURL	http://<HOST NAME>:<PORT>/<CONTEXT ROOT>/LOSApplicationRequestService	URL for OFSLL New application WebService	Refer the recommended context root table for CONTEXT ROOT. Sample URL: http://host-name:port/dbkls-xws-app-dt/LOSApplicationRequestService
LOSApplicationUpdateServiceURL	http://<HOST NAME>:<PORT>/<CONTEXT ROOT>/LOSApplicationUpdateService	URL for OFSLL application update WebService	Refer the recommended context root table for CONTEXT ROOT. Sample URL: http://host-name:port/dbkls-xws-app-dt/LOSApplicationUpdateService
postTimeout	10	Parameter to set timeout value to post XML message to third party.	Timeout value should be specified in number of seconds.
useProxy	0	Parameter to switch on/off proxy use. By default use of proxy is switched off. To use proxy setup value to "1", else setup value as "0"	
proxyHost	abc.com	Parameter to set proxy host. This is required if useProxy is set to 1.	
proxyPort	80	Parameter to set proxy port. This is required if useProxy is set to 1.	
Configuration File: dbkws_xae_init.conf			
lenderId	SOME-LENDER_ID	The finance source identifier used in the dealer file	SOMELENDER_ID is a sample value
lender-Name	SOME_LENDER_NAME	The finance source name used in the dealer file	SOME_LENDER_NAME is a sample value
application-Source	DEALERTRACK	Parameter to set application source	Don't modify this value

Property Name	Property Value	Description	Remarks
dealerElement-Name	DEALER_DETAILS	Name of XML element used for the dealer details used in the dealer file	DEALER_DETAILS is a sample value
fileLocation	/tmp		The directory for temporary files. Make sure that such directory exists on the deployment server
jndi-Lookup-DataSource	jdbc/IN1Huk-WznG0b4esj	Parameter that defines the JNDI look up for the applicaton datasource	Don't modify the value
keystore-Location	config/dls_cacerts	Parameter to set location for public/private key store for HTTPS posting and for XML Digital Signature	The keystore location should not be changed and keystore should be available in this location
keystore-Password	changeit	The keystore password	The deafult password is "changeit". Modify the property in case the password is different for the keystore.
postTimeout	10	Parameter to set timeout value to post XML message to third party.	Timeout value should be specified in number of seconds.
useProxy	0	Parameter to switch on/off proxy use. By default use of proxy is switched off. To use proxy setup value to "1", else setup value as "0"	
proxyHost	abc.com	Parameter to set proxy host. This is required if useProxy is set to 1.	
proxyPort	80	Parameter to set proxy port. This is required if useProxy is set to 1.	
Configuration File: dbkws_xcl_init.conf			
lenderId	SOME_LENDER_ID	The finance source identifier used in the dealer file	SOMELENDER_ID is a sample value
lender-Name	SOME_LENDER_NAME	The finance source name used in the dealer file	SOME_LENDER_NAME is a sample value

Property Name	Property Value	Description	Remarks
dealerElement-Name	DEALER_DETAILS	Name of XML element used for the dealer details used in the dealer file	DEALER_DETAILS is a sample value
fileLocation	/tmp		The directory for temporary files. Make sure that such directory exists on the deployment server
fileDelimiter	,	Delimiter used in dealer header file	Needed only for RouteOne
jndi-Lookup-DataSource	jdbc/dbk105nIE-JBDS	Parameter that defines the JNDI look up for the application datasource	Don't modify the value
keystore-Location	config/dls_cacerts	Parameter to set location for public/private key store for HTTPS posting and for XML Digital Signature	The keystore location should not be changed and keystore should be available in this location
keystore-Password	changeit	The keystore password	The default password is "changeit". Modify the property in case the password is different for the keystore.
sscroKey Alias	ofss_routeone	OFSLL's private key alias name. The private key is used to sign xml response to RouteOne	You may import the private key with alias "ofss_routeone" else modify the property value to alias used while importing the private key into keystore.
sscroKey-Password	demotestSSCR1	OFSLL's private key password	demotestSSCR1 is a sample value
Configuration File: Logging.properties			
handlers	java.util.logging.FileHandler, java.util.logging.ConsoleHandler		
java.util.logging.FileHandler.level	ALL		

Property Name	Property Value	Description	Remarks
java.util.logging.FileHandler.pattern	/somewhere/logs/dbkls_xws_%g.log		
java.util.logging.FileHandler.limit	1000000		
java.util.logging.FileHandler.count	4		
java.util.logging.FileHandler.append	true		
java.util.logging.FileHandler.formatter	java.util.logging.SimpleFormatter		
java.util.logging.ConsoleHandler.level	WARNING		
java.util.logging.ConsoleHandler.formatter	java.util.logging.SimpleFormatter		
com.ofss.fll.xws.level	FINER	set the logging level for the application	Other Level values -- FINEST,FINE,CONFIG and INFO

EDOCS

Property Name	Property Value	Description	Remarks
Configuration File: ds_servlet_init.conf			
LOSeApplication-RequestServiceURL	http://<HOST NAME>:<PORT>/<CONTEXT ROOT>/LOSeApplicationRequestService	URL for OFSLL eDocs Create/update application WebService	Refer the recommended context root table for CONTEXT ROOT. Sample URL: http://hostname:port/dbkls-xws-apps/LOSeApplicationRequestService
LOSAApplication-CommentUpdateServiceURL	http://<HOST NAME>:<PORT>/<CONTEXT ROOT>/LOSAApplicationCommentUpdateService	URL for OFSLL eDocs comment update WebService	Refer the recommended context root table for CONTEXT ROOT. Sample URL: http://hostname:port/dbkls-xws-apps/LOSAApplicationCommentUpdateService
LOSAApplication-LocationUpdateServiceURL	http://<HOST NAME>:<PORT>/<CONTEXT ROOT>/LOSAApplicationLocationUpdateService	URL for OFSLL eDocs location update WebService	Refer the recommended context root table for CONTEXT ROOT. Sample URL: http://hostname:port/dbkls-xws-apps/LOSAApplicationLocationUpdateService
postTimeout	10	Parameter to set timeout value to post XML message to third party.	Timeout value should be specified in number of seconds.
useProxy	0	Parameter to switch on/off proxy use. By default use of proxy is switched off. To use proxy setup value to "1", else setup value as "0"	
proxyHost	abc.com	Parameter to set proxy host. This is required if useProxy is set to 1.	
proxyPort	80	Parameter to set proxy port. This is required if useProxy is set to 1.	

Property Name	Property Value	Description	Remarks
Configuration File: dbkws_xae_init.conf			
lenderId	SOME-LENDER_ID	The finance source identifier used in the dealer file	SOMELENDER_ID is a sample value
lenderName	SOME_LENDER_NAME	The finance source name used in the dealer file	SOME_LENDER_NAME is a sample value
applicationSource	EDOCS	Parameter to set application source	Don't modify this value
dealerElement-Name	DEALER_DETAILS	Name of XML element used for the dealer details used in the dealer file	DEALER_DETAILS is a sample value
fileLocation	/tmp		The directory for temporary files. Make sure that such directory exists on the deployment server
jndiLookupData-Source	jdbc/IN1Huk-WznG0b4esj	Parameter that defines the JNDI look up for the applicaton data-source	Don't modify the value
keystoreLocation	config/dls_cacerts	Parameter to set location for public/private key store for HTTPS posting and for XML Digital Signature	The keystore location should not be changed and keystore should be available in this location
keystorePassword	changeit	The keystore password	The default password is "changeit". Modify the property in case the password is different for the keystore.
postTimeout	10	Parameter to set timeout value to post XML message to third party.	Timeout value should be specified in number of seconds.

Property Name	Property Value	Description	Remarks
useProxy	0	Parameter to switch on/off proxy use. By default use of proxy is switched off. To use proxy setup value to "1", else setup value as "0"	
proxyHost	abc.com	Parameter to set proxy host. This is required if useProxy is set to 1.	
proxyPort	80	Parameter to set proxy port. This is required if useProxy is set to 1.	
Configuration File: dbkws_xcl_init.conf			
lenderId	SOME-LENDER_ID	The finance source identifier used in the dealer file	SOMELENDER_ID is a sample value
lenderName	SOME_LENDER_NAME	The finance source name used in the dealer file	SOME_LENDER_NAME is a sample value
dealerElement-Name	DEALER_DETAILS	Name of XML element used for the dealer details used in the dealer file	DEALER_DETAILS is a sample value
fileLocation	/tmp		The directory for temporary files. Make sure that such directory exists on the deployment server
fileDelimiter	,	Delimiter used in dealer header file	
jndiLookupData-Source	jdbc/dbk105nIE-JBDS	Parameter that defines the JNDI look up for the applicaton data-source	Don't modify the value

Property Name	Property Value	Description	Remarks
keystoreLocation	config/dls_cacerts	Parameter to set location for public/private key store for HTTPS posting and for XML Digital Signature	The keystore location should not be changed and keystore should be available in this location
keystorePassword	changeit	The keystore password	The default password is "changeit". Modify the property in case the password is different for the keystore.
sscroKeyAlias	ofss_routeone	OFSLL's private key alias name. The private key is used to sign xml response to RouteOne	You may import the private key with alias "ofss_routeone" else modify the property value to alias used while importing the private key into keystore.
sscroKeyPassword	demotestSSCR1	OFSLL's private key password	demotestSSCR1 is a sample value
Configuration File: Logging.properties			
handlers	java.util.logging.FileHandler, java.util.logging.ConsoleHandler		
java.util.logging.FileHandler.level	ALL		
java.util.logging.FileHandler.pattern	/somewhere/logs/dbkls_xws_%g.log		
java.util.logging.FileHandler.limit	1000000		
java.util.logging.FileHandler.count	4		
java.util.logging.FileHandler.append	true		
java.util.logging.FileHandler.formatter	java.util.logging.SimpleFormatter		

Property Name	Property Value	Description	Remarks
java.util.logging.ConsoleHandler.level	WARNING		
java.util.logging.ConsoleHandler.formatter	java.util.logging.SimpleFormatter		
com.ofss.fl.xws.level	FINER	set the logging level for the application	Other Level values -- FINEST,FINE,CONFIG and INFO

Others

- Verify that latest XWS SQL Types, Views and Packages are installed.
- Required Java permissions have been granted
- Verify that System parameters for WebServices URLs as well as Post Response URLs are set. Please see the table below for details
- System parameter CMN_WALLET_PATH and CMN_WALLET_PASSWORD is setup
- Verify lenderId, lendername in config(dbkws_xae_init.conf) file and also set lenderId in all response xsl in element "A:TargetId".
- For DealerTrack access, user name/pwd should be setup in file ".htpasswd" under config dir

System Parameters to be configured:

System Parameter Name	System Parameter Desc
XWS_XAE_DLR_TRACK_RESP_PWD	DEALERTRACK APPLICATION RESPONSE BASIC AUTH PASSWORD
XWS_XAE_DLR_TRACK_RESP_URL	DEALERTRACK APPLICATION RESPONSE URL
XWS_XAE_DLR_TRACK_RESP_USER	DEALERTRACK APPLICATION RESPONSE BASIC AUTH USER
XWS_XAE_DLR_TRACK_WS_URL	OFSSL WEBSERVICE URL TO POST APPLICATION RESPONSE TO DEALERTRACK
XWS_XAE_ROUTEONE_RESP_PWD	ROUTE ONE APPLICATION RESPONSE BASIC AUTH PASSWORD
XWS_XAE_ROUTEONE_RESP_URL	ROUTE ONE APPLICATION RESPONSE URL
XWS_XAE_ROUTEONE_RESP_USER	ROUTE ONE APPLICATION RESPONSE BASIC AUTH USER
XWS_XAE_ROUTEONE_WS_URL	OFSSL WEBSERVICE URL TO POST APPLICATION RESPONSE TO ROUTE ONE
XWS_XAE_EDOC_RESP_URL	EDOCS APPLICATION RESPONSE BASIC AUTH PASSWORD

System Parameter Name	System Parameter Desc
XWS_XAE_EDOC_WS_URL	EDOCS APPLICATION RESPONSE URL
XWS_XAE_EDOC_RESP_USER	EDOCS APPLICATION RESPONSE BASIC AUTH USER
XWS_XAE_EDOC_RESP_PWD	OFSSL WEBSERVICE URL TO POST APPLICATION RESPONSE TO EDOCS
XWS_XPR_DLR_TRACK_RESP_PWD	DEALER TRACK DEALER LOAD PASSWORD
XWS_XPR_DLR_TRACK_RESP_URL	DEALER TRACK DEALER LOAD RESPONSE URL
XWS_XPR_DLR_TRACK_RESP_USER	DEALER TRACK DEALER LOAD USER ID
XWS_XPR_DLR_TRACK_WS_URL	OFSSL WEBSERVICE URL TO POST DEALER DETAILS TO DEALER TRACK
XWS_XPR_INCLUDE_TEMP	INCLUDE TEMP PRODUCERS
XWS_XPR_ROUTEONE_RESP_PWD	ROUTE ONE DEALER LOAD PASSWORD
XWS_XPR_ROUTEONE_RESP_URL	ROUTE ONE DEALER LOAD RESPONSE URL
XWS_XPR_ROUTEONE_RESP_USER	ROUTE ONE DEALER LOAD USER ID
XWS_XPR_ROUTEONE_WS_URL	OFSSL WEBSERVICE URL TO POST DEALER DETAILS TO ROUTE ONE
XWS_XAE_DLR_TRACK_LENDERID	DEALERTRACK LENDER ID
XWS_XAE_ROUTEONE_LENDERID	ROUTEONE LENDER ID
XWS_XAE_DLR_TRACK_LENDER_NAME	DEALERTRACK LENDER NAME
XWS_XAE_ROUTEONE_LENDER_NAME	ROUTEONE LENDER NAME
XWS_XAE_ECON_ROUTEONE_RESP_URL	Route One E-contract response URL