

SOA Suite Setup for BPEL Process Flow
Oracle FLEXCUBE Investor Servicing
Release 14.1.0.0.0
[May] [2019]



Table of Contents

1. PREFACE	1-1
1.1 BACKGROUND	1-1
1.2 AUDIENCE	1-1
1.3 ORGANIZATION	1-1
1.4 ACRONYMS AND ABBREVIATIONS	1-1
2. INSTALLING THE JDK, WEBLOGIC, RCU, SOA AND DOMAIN CREATION.....	2
2.1 INTRODUCTION	2
2.2 LIST OF DOWNLOADED FILES	2
2.3 INSTALL JDK.....	3
2.4 INSTALLING WEBLOGIC SERVER SOFTWARE	4
2.5 INSTALLING ORACLE FUSION MIDDLEWARE 12C SOFTWARE.....	9
2.6 CREATING PRODUCT SCHEMAS IN ORACLE DATABASE.....	13
2.7 WEBLOGIC SERVER DOMAIN CONFIGURATION.....	21
2.8 REMOTE SETUP CONFIGURATION	30

1. Preface

1.1 Background

This document provides an overview of configuring SOA suite for Oracle FLEXCUBE Investor Servicing BPEL process deployment.

Refer to the Oracle documentation for HA and other configuration patterns.

1.2 Audience

The audience for this document will be the development groups of BPEL/BPM process flows Oracle FLEXCUBE Investor Servicing.

1.3 Organization

This manual is organized as follows:

- The document helps in download and installation of Oracle SOA 12c.

1.4 Acronyms and Abbreviations

Acronym/Abbreviation	Description
BPEL	Business Process Execution Language
HA	High Availability

2. Installing the JDK, WebLogic, RCU, SOA and Domain Creation

2.1 Introduction

The download of software can be done from the oracle edelivery portal

<https://edelivery.oracle.com>

Refer to the Oracle certification matrix for qualified databases.

2.2 List of downloaded files

Latest Oracle JDK 8 Update for Linux x86-64

Search: Oracle Fusion Middleware 12c Infrastructure 12.2.1.2.0 (**WebLogic Installation**)

V78156-01.zip– Oracle Fusion Middleware 12c (12.2.1.2.0) Infrastructure

Search: Oracle Business Process Management 12.2.1.0.0 (**BPM/BPEL**)

V78169-01.zip– Oracle Fusion Middleware 12c (12.2.1.2.0) SOA Suite and Business Process Management

List of platform which can be selected based on the installation platform

<input type="checkbox"/>	HP-UX Itanium
<input type="checkbox"/>	IBM AIX on POWER Systems (64-bit)
<input type="checkbox"/>	IBM z/OS on System z
<input type="checkbox"/>	IBM: Linux on System z
<input type="checkbox"/>	Linux x86-64
<input type="checkbox"/>	Microsoft Windows (32-bit)
<input type="checkbox"/>	Microsoft Windows x64 (64-bit)
<input type="checkbox"/>	Oracle Solaris on SPARC (32-bit)
<input type="checkbox"/>	Oracle Solaris on SPARC (64-bit)
<input type="checkbox"/>	Oracle Solaris on x86-64 (64-bit)

SelectCancel

Search by All Start typing... Select Platform

Download Queue

Continue

Selected Item	Platform
Release: Oracle SOA Suite 12.2.1.0.0	Linux x86-64
Release: Oracle Business Process Management 12.2.1.0.0	Linux x86-64

Remove All

Continue

NOTE (Doc ID 1904280.1): As part of the new Release of SOA 12c, you need to get WebLogic 12c through the Oracle Fusion Middleware Infrastructure installation, which contains all required components for SOA. The standard WebLogic 12.2.1.0.0 Installer i.e. fmw_12.2.1.0.0_wls.jar, does not have the required JRF templates.

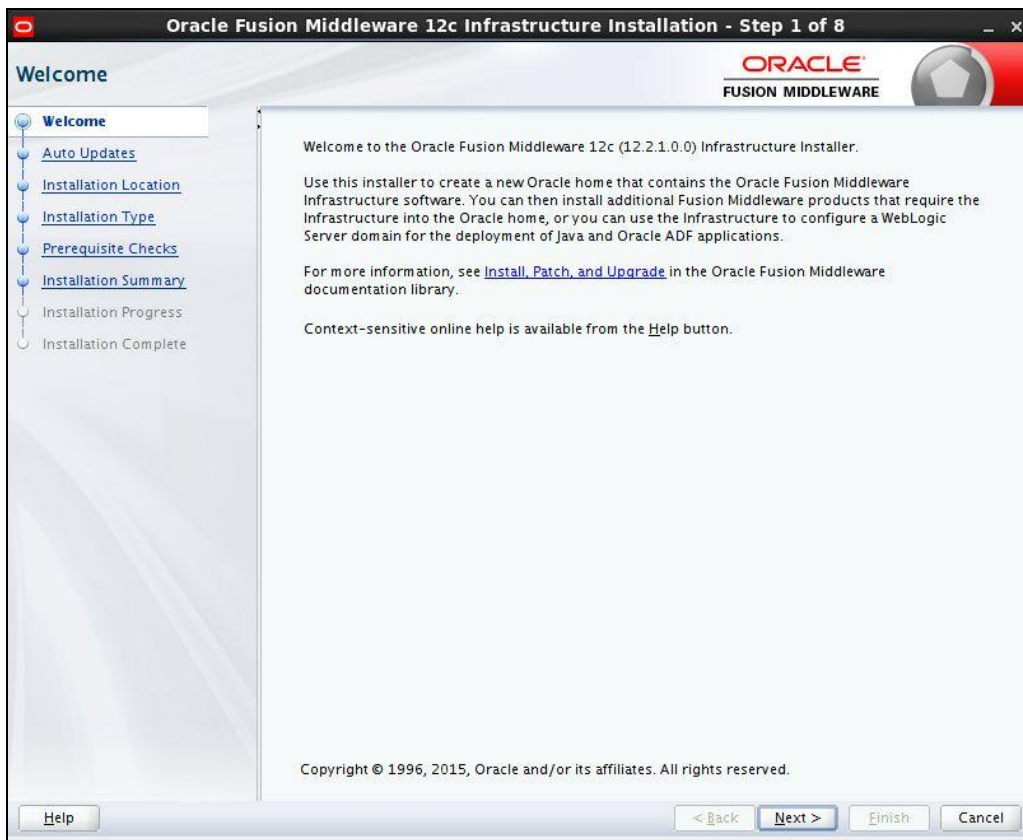
2.3 Install JDK

Login to WebLogic server host upload and install JDK package. Refer to the release certificate for the version of java JDK.

2.4 Installing WebLogic Server Software

```
[oracle@wls12c-node1 ~]$ cd /scratch/app/fmwTemp1221/  
[oracle@wls12c-node1 fmwTemp1221]$ unzip V78156-01.zip  
Archive: V78156-01.zip  
inflating: fmw_12.2.1_infrastructure.jar  
[oracle@wls12c-node1 fmwTemp1221]$ java -jar fmw_12.2.1 _infrastructure.jar
```

Step 1:



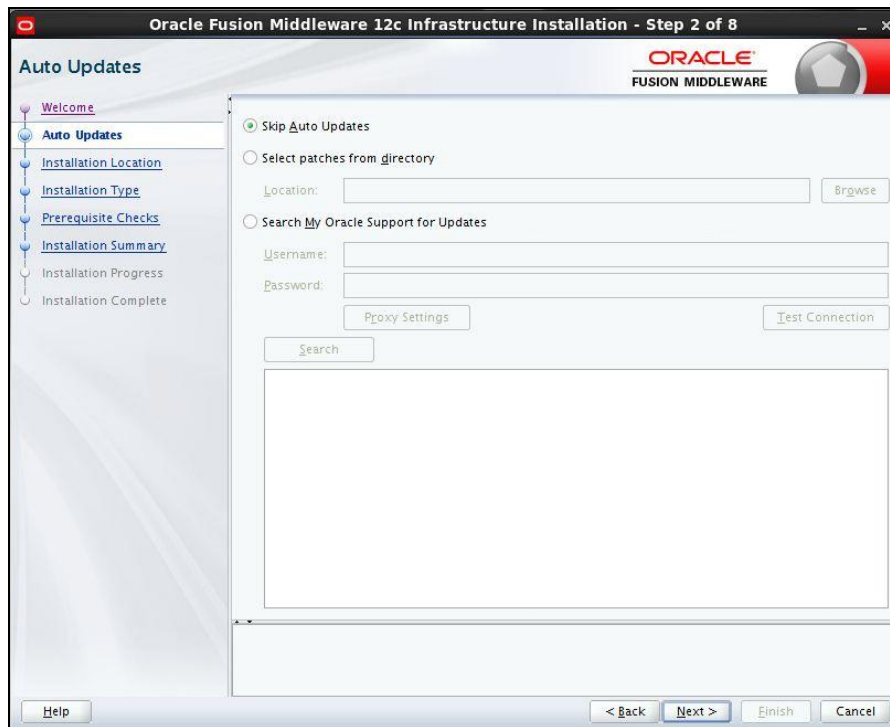
Step 2:

Option need to be selected based on the requirement:

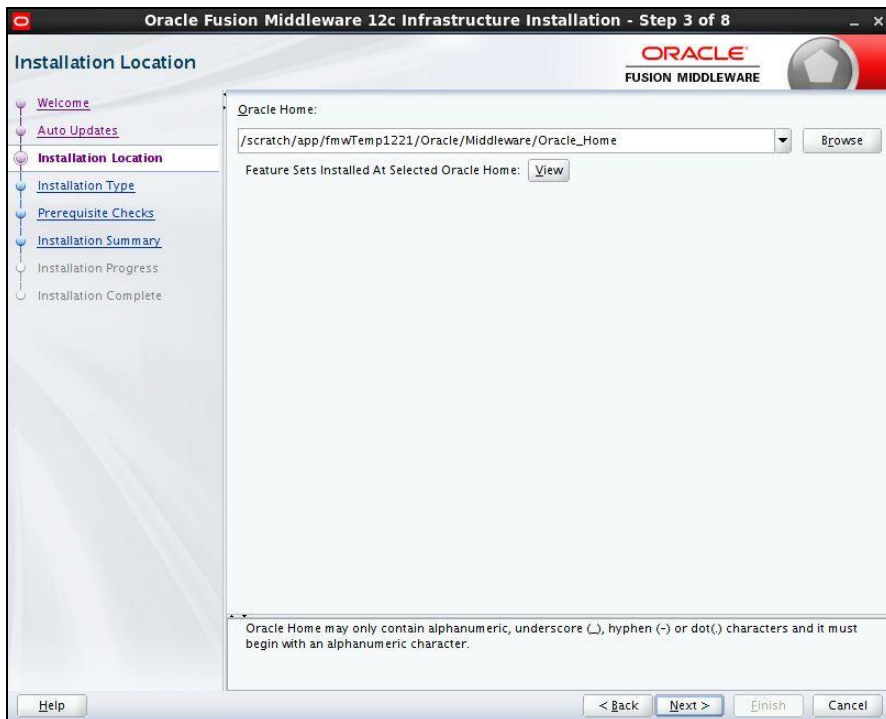
If you don't want the auto updates, select the first option.

If you are applying patches, select the second option.

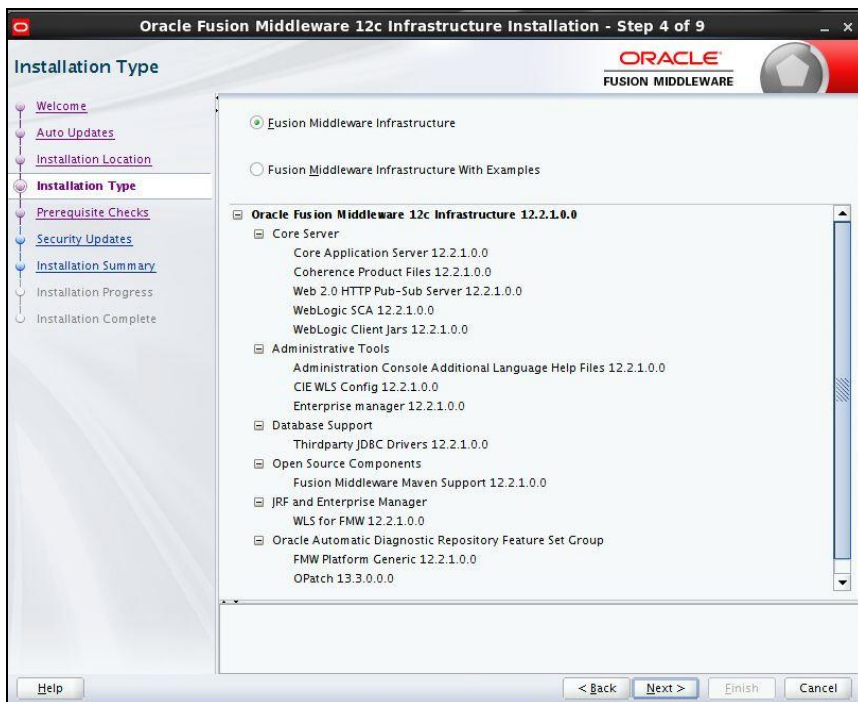
Please select the option based on the requirement:



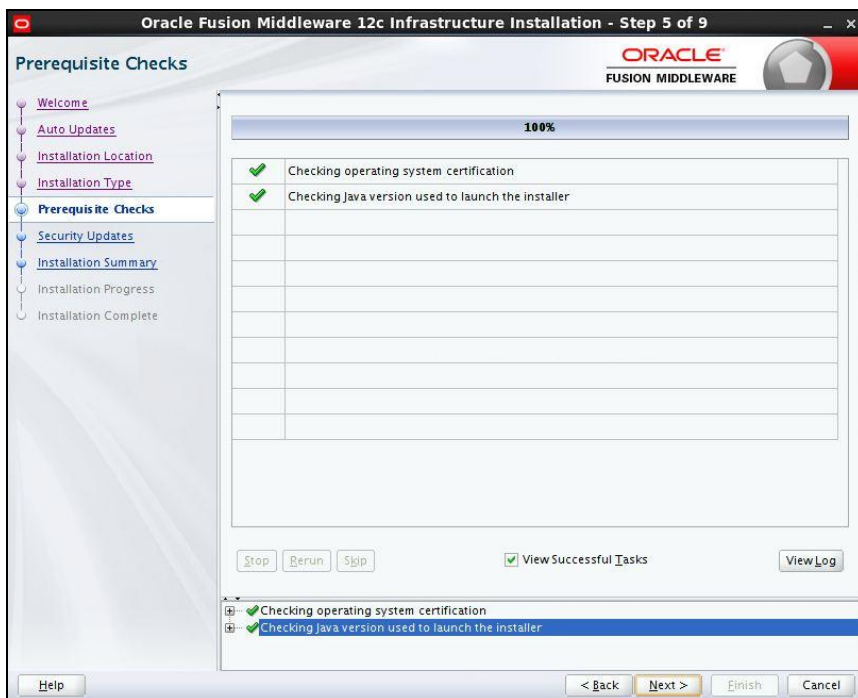
Step 3: Define the oracle home path



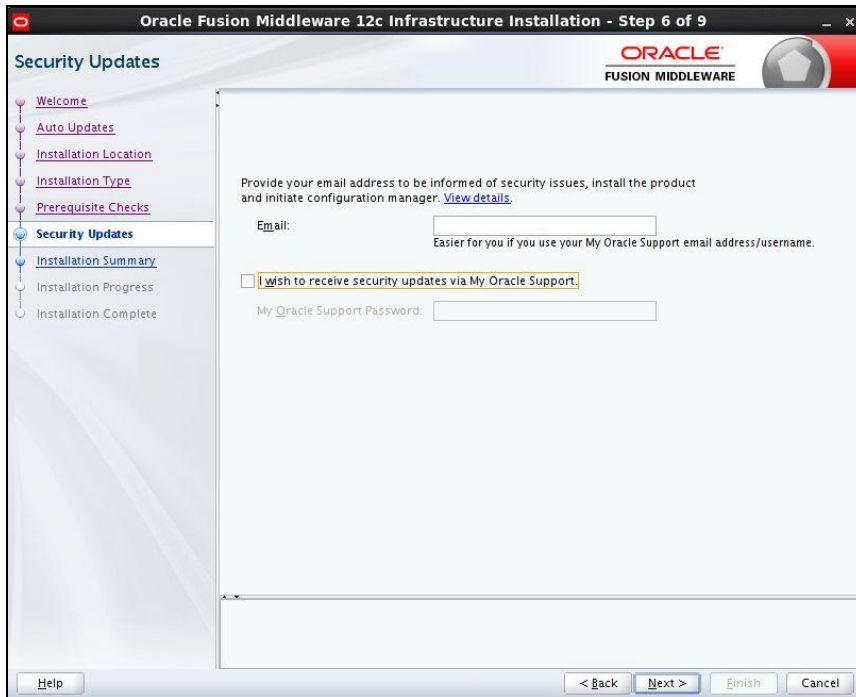
Step 4: Select fusion middleware infrastructure



Step 5:



Step 6: Optional based on installation requirement



Oracle Fusion Middleware 12c Infrastructure Installation - Step 6 of 9

Security Updates

Welcome
Auto Updates
Installation Location
Installation Type
Prerequisite Checks
Security Updates
Installation Summary
Installation Progress
Installation Complete

Provide your email address to be informed of security issues, install the product and initiate configuration manager. [View details.](#)

Email:

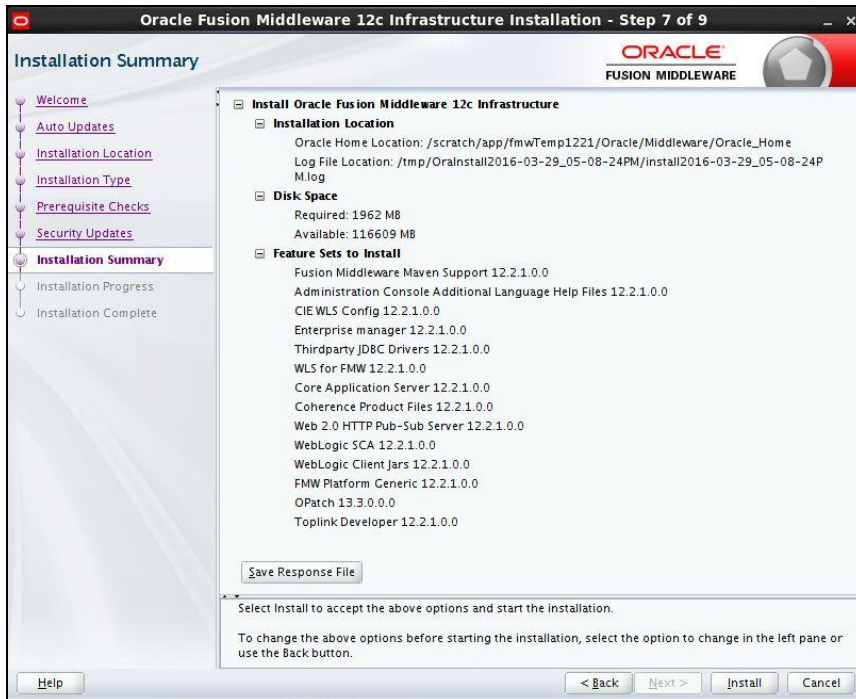
Easier for you if you use your My Oracle Support email address/username.

☐ I wish to receive security updates via My Oracle Support.

My Oracle Support Password:

Help < Back Next > Finish Cancel

Step 7:



Oracle Fusion Middleware 12c Infrastructure Installation - Step 7 of 9

Installation Summary

Welcome
Auto Updates
Installation Location
Installation Type
Prerequisite Checks
Security Updates
Installation Summary
Installation Progress
Installation Complete

Install Oracle Fusion Middleware 12c Infrastructure

- Installation Location**
 - Oracle Home Location: /scratch/app/fmwTemp1221/Oracle/Middleware/Oracle_Home
 - Log File Location: /tmp/Orainstall2016-03-29_05-08-24PM/install2016-03-29_05-08-24PM.log
- Disk Space**
 - Required: 1962 MB
 - Available: 116609 MB
- Feature Sets to Install**
 - Fusion Middleware Maven Support 12.2.1.0.0
 - Administration Console Additional Language Help Files 12.2.1.0.0
 - CIE WLS Config 12.2.1.0.0
 - Enterprise manager 12.2.1.0.0
 - Thirdparty JDBC Drivers 12.2.1.0.0
 - WLS for FMW 12.2.1.0.0
 - Core Application Server 12.2.1.0.0
 - Coherence Product Files 12.2.1.0.0
 - Web 2.0 HTTP Pub-Sub Server 12.2.1.0.0
 - WebLogic SCA 12.2.1.0.0
 - WebLogic Client Jars 12.2.1.0.0
 - FMW Platform Generic 12.2.1.0.0
 - OPatch 13.3.0.0.0
 - Toplink Developer 12.2.1.0.0

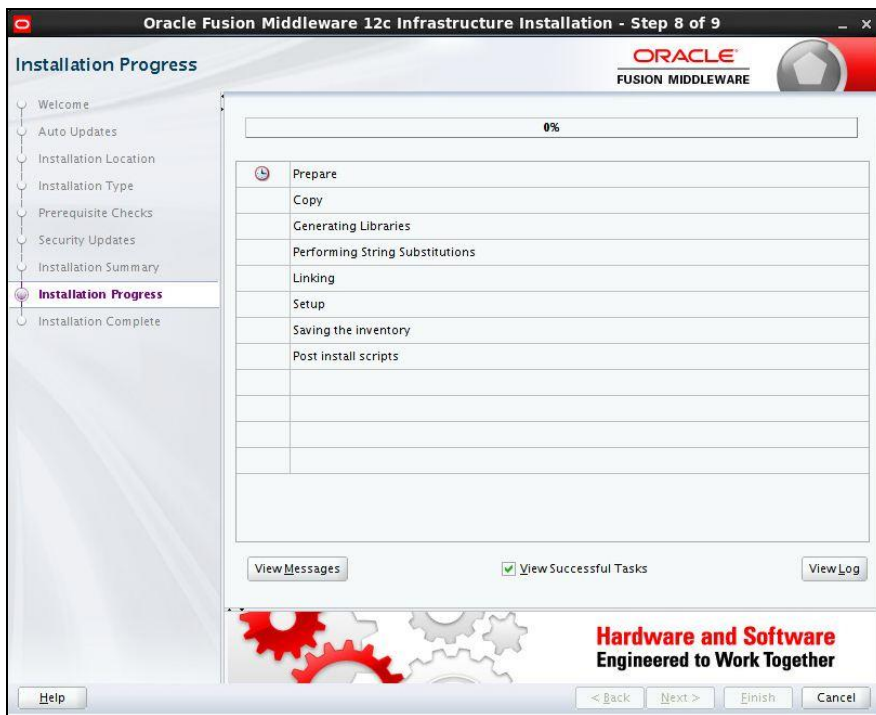
Save Response File

Select Install to accept the above options and start the installation.

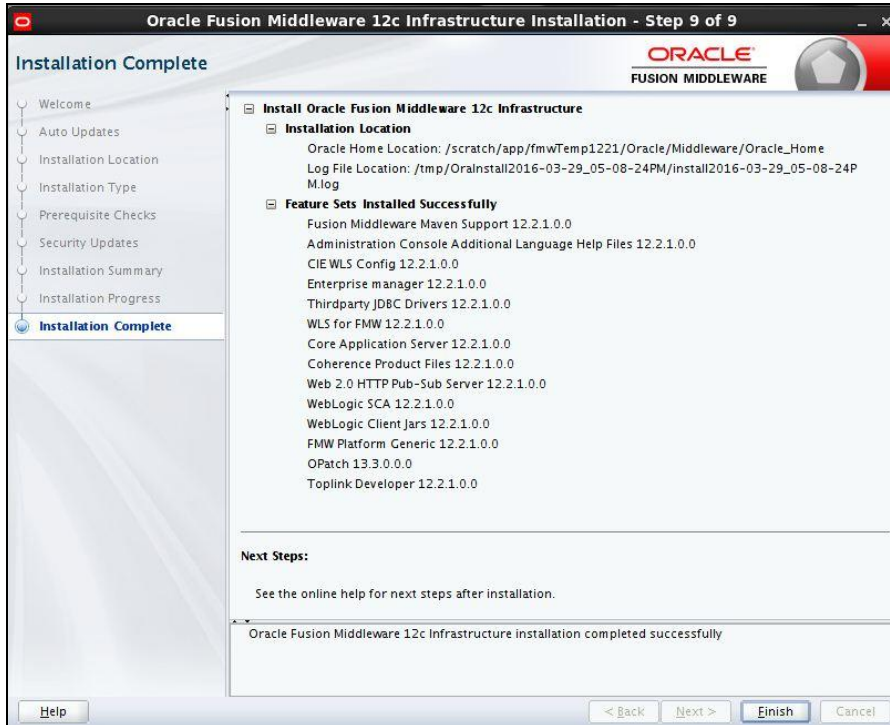
To change the above options before starting the installation, select the option to change in the left pane or use the Back button.

Help < Back Next > Install Cancel

Step 8:



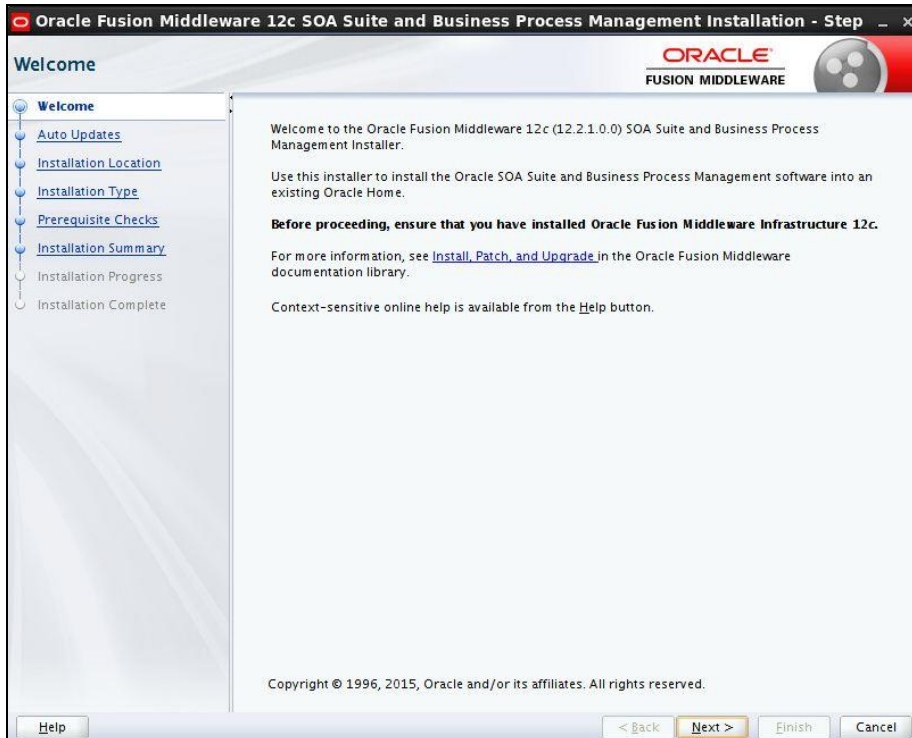
Step 9:



2.5 Installing Oracle Fusion Middleware 12c Software

```
[oracle@wls12c-node1 ~]$ cd /scratch/app/fmwTemp1221/  
[oracle@wls12c-node1 fmwTemp1221]$ unzip V78169-01.zip  
Archive: V78169-01.zip  
  inflating: fmw_12.2.1.0.0 _soa.jar  
  
[oracle@wls12c-node1 fmwTemp1221]$ java -jar fmw_12.2.1 _soa.jar
```

Step 1:

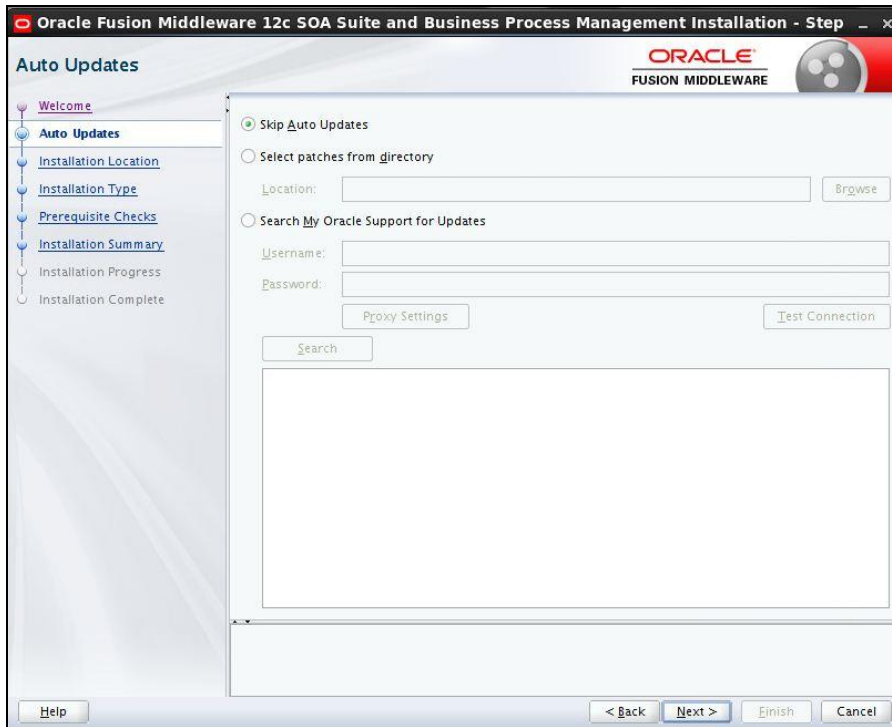


Step 2:

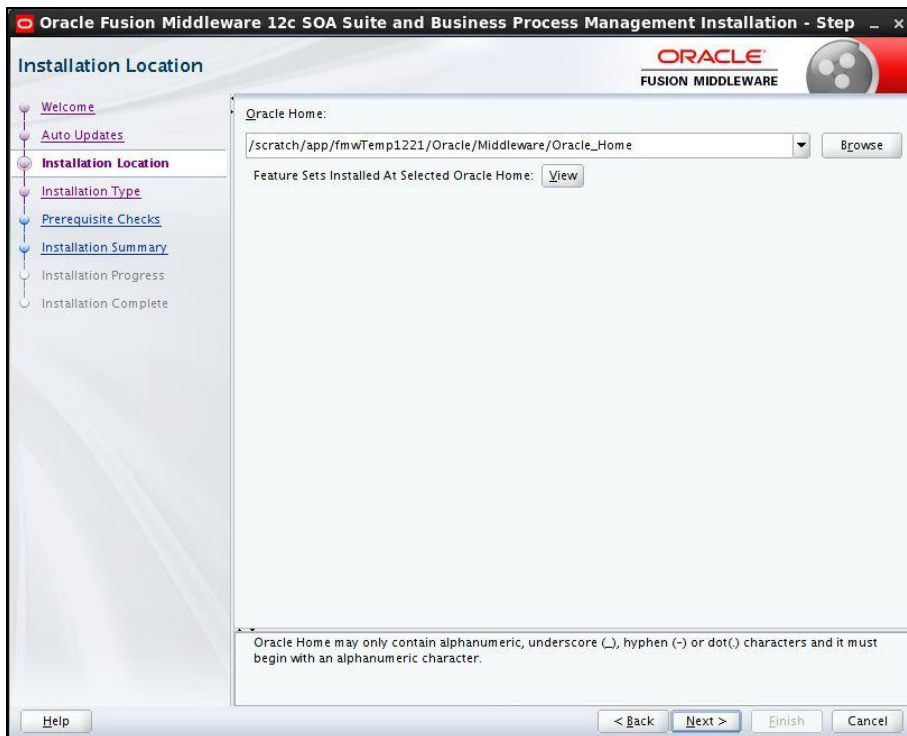
Option need to be selected based on the requirement:

- a) If you don't want the auto updates, select the first option.
- b) If you are applying patches, select the second option .

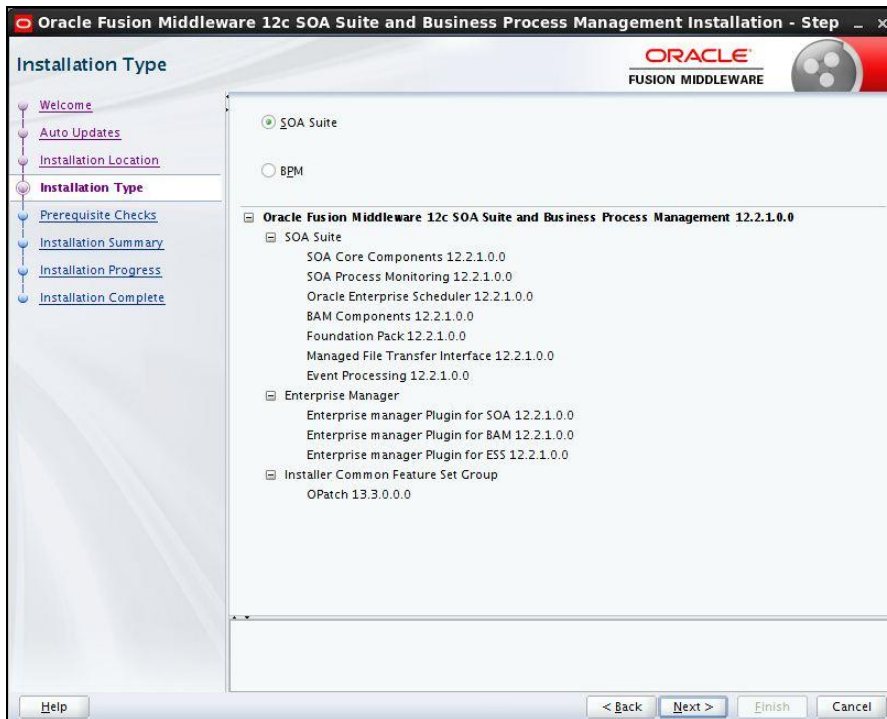
Please select the below option based on the requirement:



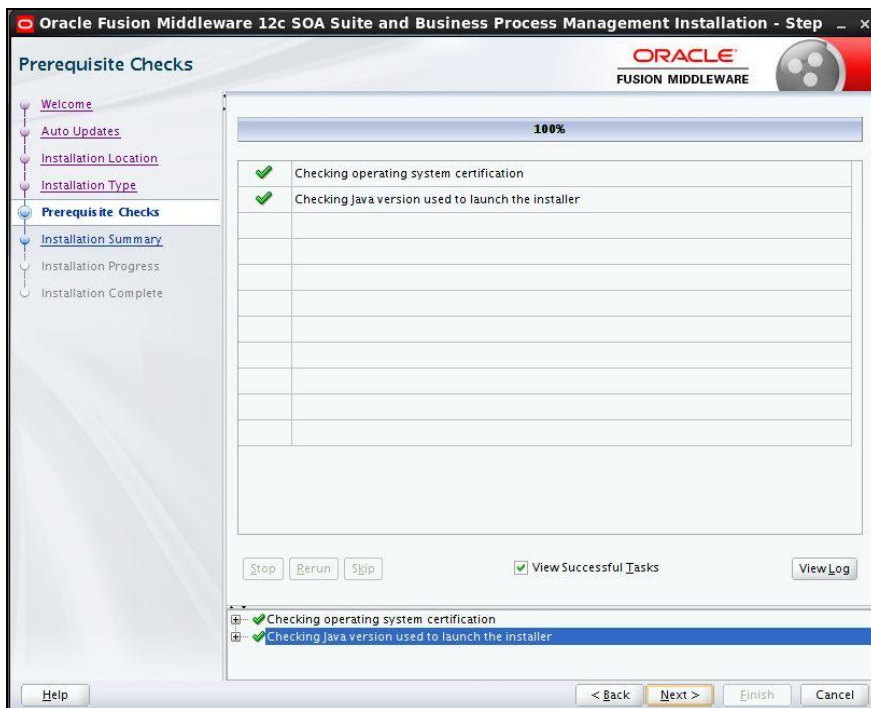
Step 3:



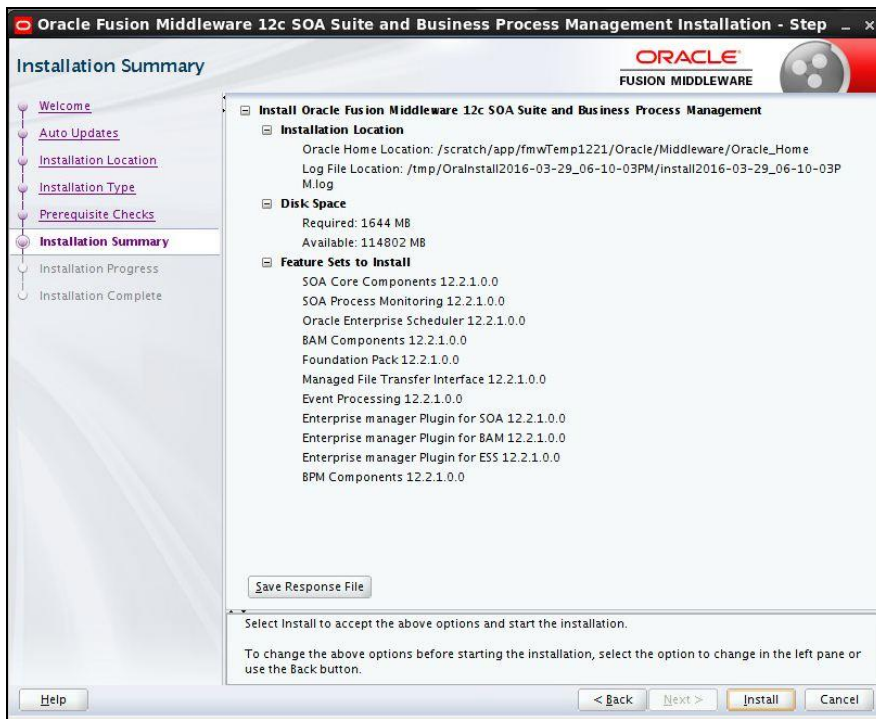
Step 4:  Please select BPM if the environment requires BPM process flow deployment



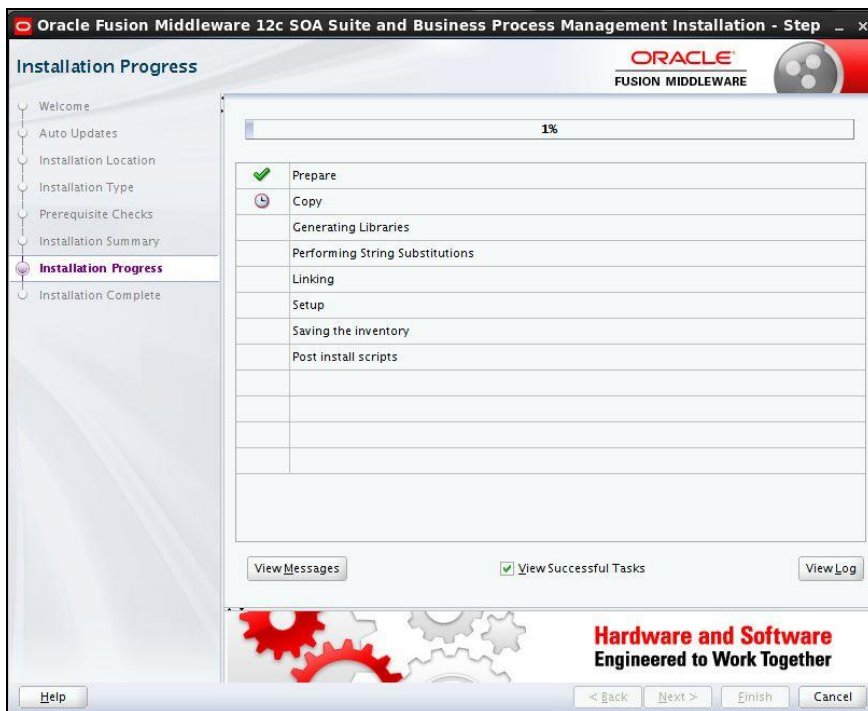
Step 5:



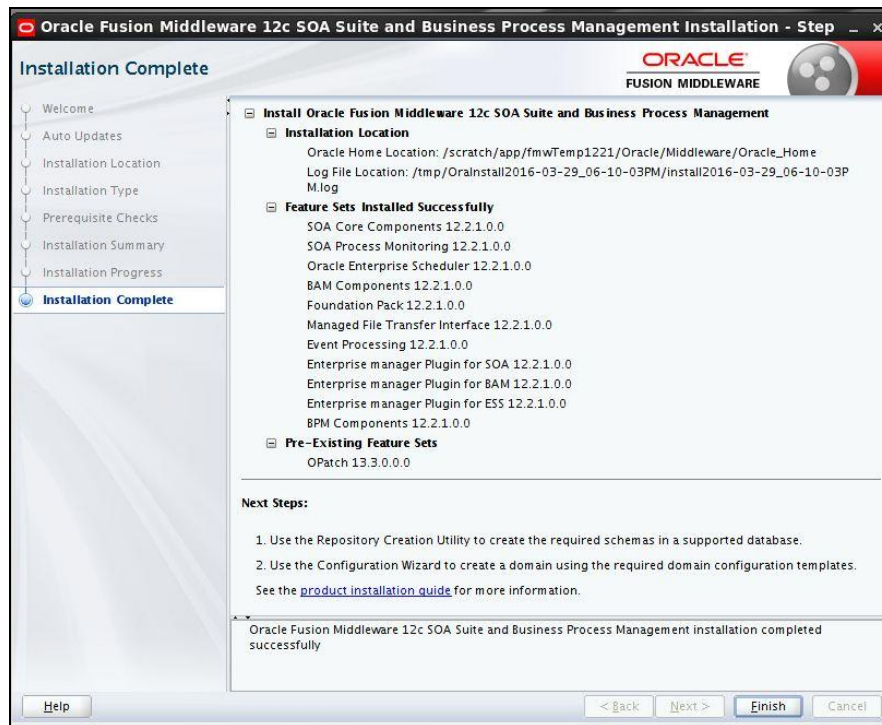
Step 6:



Step 7:



Step 8:



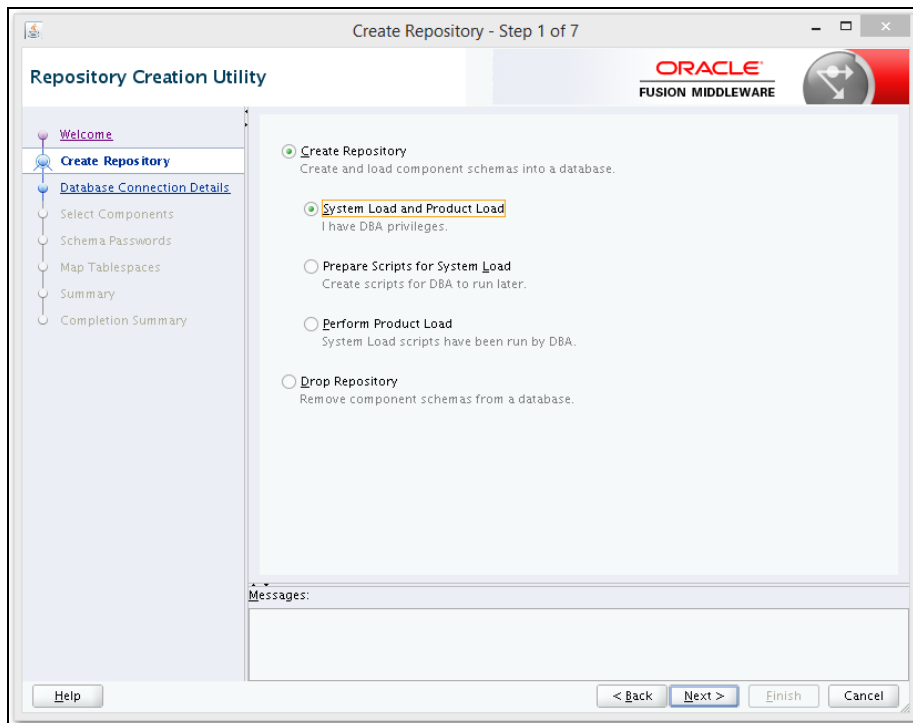
2.6 Creating Product Schemas in Oracle Database

The Repository Creation Utility (RCU) is the tool used to create schemas in a database. This tool is available once we've installed the Oracle Fusion Middleware Infrastructure software (Point 2).

Refer to [Oracle Fusion Middleware Creating Schemas with the Repository Creation Utility](#) for more information about the Repository Creation Utility.

- [oracle@wls12c-node1 fmwTemp1221]\$ cd /scratch/app/fmwTemp1221/Oracle/Middleware/Oracle_Home/bin/
- [oracle@wls12c-node1 bin]\$./rcu

Step 1:



Step 2: Define the host name port username and password for creating the RCU schemas in the database. The sys user required to create the rcu schemas.

Database Connection Details - Step 2 of 7

Repository Creation Utility

Database Type: Oracle Database

Host Name:

Port: 1522

Service Name: ORDSVC

Username: sys
User with DBA or SYSDBA privileges. Example: sys

Password:

Role: SYSDBA
One or more components may require SYSDBA role for the operation to succeed.

Messages:

Help < Back Next > Finish Cancel

Database Connection Details - Step 2 of 7

Repository Creation Utility

Database Type: Oracle Database

Host Name:

Port: 1522

Service Name:

Username:

Password:

Role:

Messages:

Help < Back Next > Finish Cancel

Repository Creation Utility - Checking Prerequisites

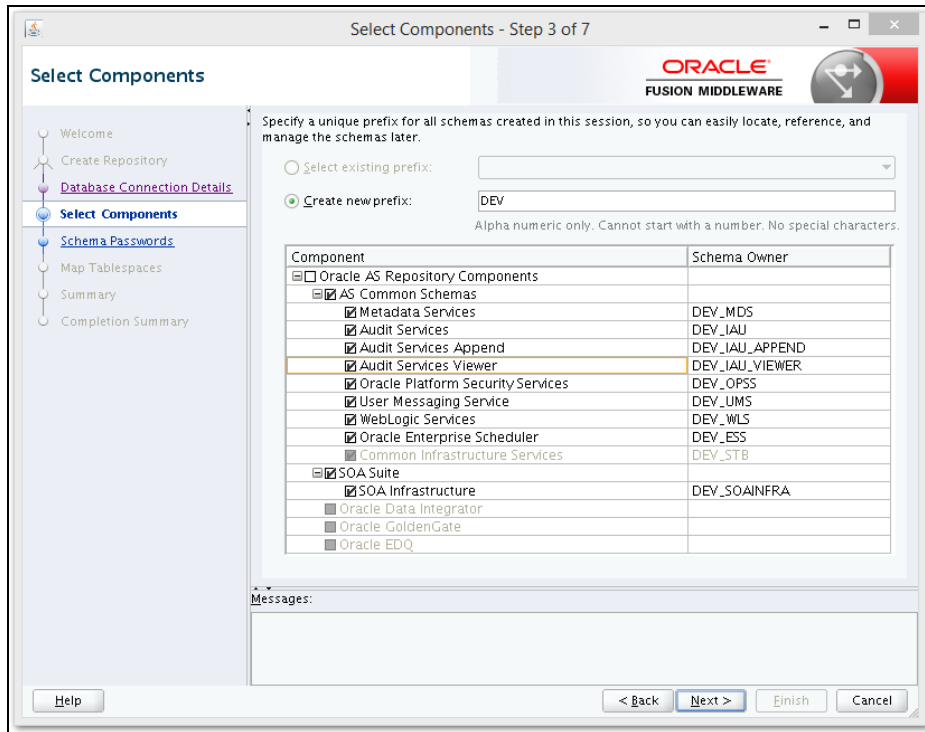
Checking Global Prerequisites

✓ Initializing repository configuration metadata	00:01.215(sec)
✓ Obtain properties of the specified database	00:00.102(ms)
✓ Check requirement for specified database	00:01.625(sec)

Operation completed. Click OK to continue to next page.

OK

Step 3: Define the prefix to be used for the schemas



Select Components - Step 3 of 7

Specify a unique prefix for all schemas created in this session, so you can easily locate, reference, and manage the schemas later.

☐ Select existing prefix:

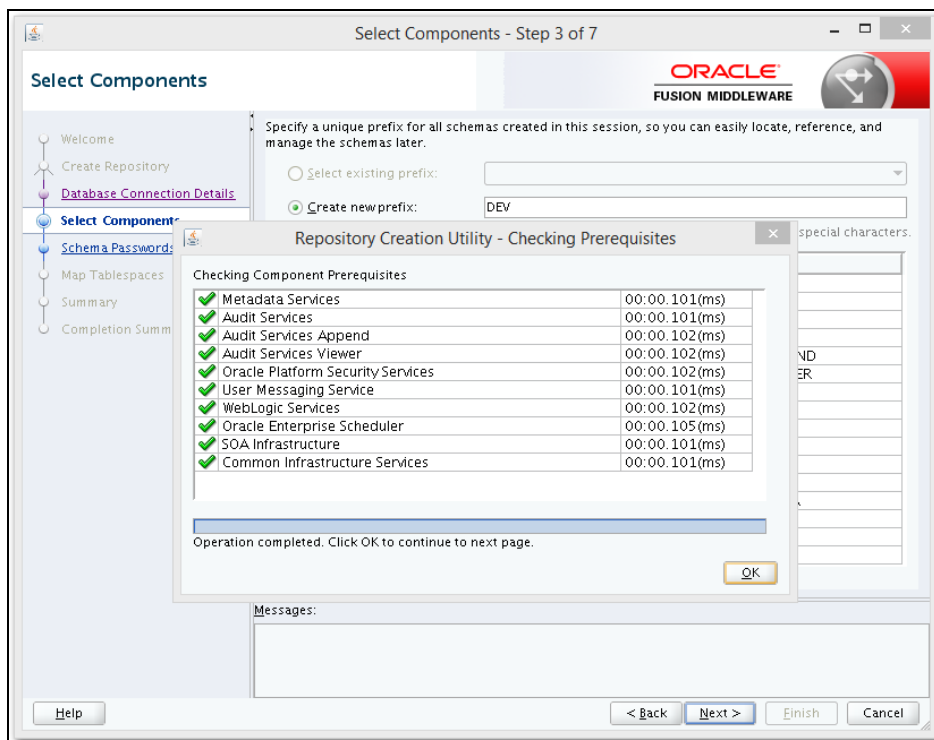
☒ Create new prefix:

Alpha numeric only. Cannot start with a number. No special characters.

Component	Schema Owner
<input type="checkbox"/> Oracle AS Repository Components	
<input checked="" type="checkbox"/> AS Common Schemas	
<input checked="" type="checkbox"/> Metadata Services	DEV_MDS
<input checked="" type="checkbox"/> Audit Services	DEV_IAU
<input checked="" type="checkbox"/> Audit Services Append	DEV_IAU_APPEND
<input checked="" type="checkbox"/> Audit Services Viewer	DEV_IAU_VIEWER
<input checked="" type="checkbox"/> Oracle Platform Security Services	DEV_OPSS
<input checked="" type="checkbox"/> User Messaging Service	DEV_UMS
<input checked="" type="checkbox"/> WebLogic Services	DEV_WLS
<input checked="" type="checkbox"/> Oracle Enterprise Scheduler	DEV_ESS
<input checked="" type="checkbox"/> Common Infrastructure Services	DEV_STB
<input checked="" type="checkbox"/> SOA Suite	
<input checked="" type="checkbox"/> SOA Infrastructure	DEV_SOAINFRA
<input type="checkbox"/> Oracle Data Integrator	
<input type="checkbox"/> Oracle GoldenGate	
<input type="checkbox"/> Oracle EDQ	

Messages:

Help < Back Next > Finish Cancel



Select Components - Step 3 of 7

Specify a unique prefix for all schemas created in this session, so you can easily locate, reference, and manage the schemas later.

☐ Select existing prefix:

☒ Create new prefix:

Alpha numeric only. Cannot start with a number. No special characters.

Repository Creation Utility - Checking Prerequisites

Checking Component Prerequisites

Metadata Services	00:00.101(ms)
Audit Services	00:00.101(ms)
Audit Services Append	00:00.102(ms)
Audit Services Viewer	00:00.102(ms)
Oracle Platform Security Services	00:00.102(ms)
User Messaging Service	00:00.101(ms)
WebLogic Services	00:00.102(ms)
Oracle Enterprise Scheduler	00:00.105(ms)
SOA Infrastructure	00:00.101(ms)
Common Infrastructure Services	00:00.101(ms)

Operation completed. Click OK to continue to next page.

OK

Messages:

Help < Back Next > Finish Cancel

Step 4: Define the password for the schemas.

Schema Passwords - Step 4 of 8

Repository Creation Utility

Define passwords for main and auxiliary schema users.

☒ Use same passwords for all schemas

Password:

Alpha numeric only. Cannot start with a number.
No special characters except: \$, #, _

Confirm Password:


☐ Use main schema passwords for auxiliary schemas

☐ Specify different passwords for all schemas

Messages:

Help < Back Next > Finish Cancel

Note: It is important to remember the password or passwords that you enter during the process.

Step 5:  Please select the database profile based on requirement (SMALL/MED/LARGE)

Custom Variables - Step 5 of 8

Repository Creation Utility

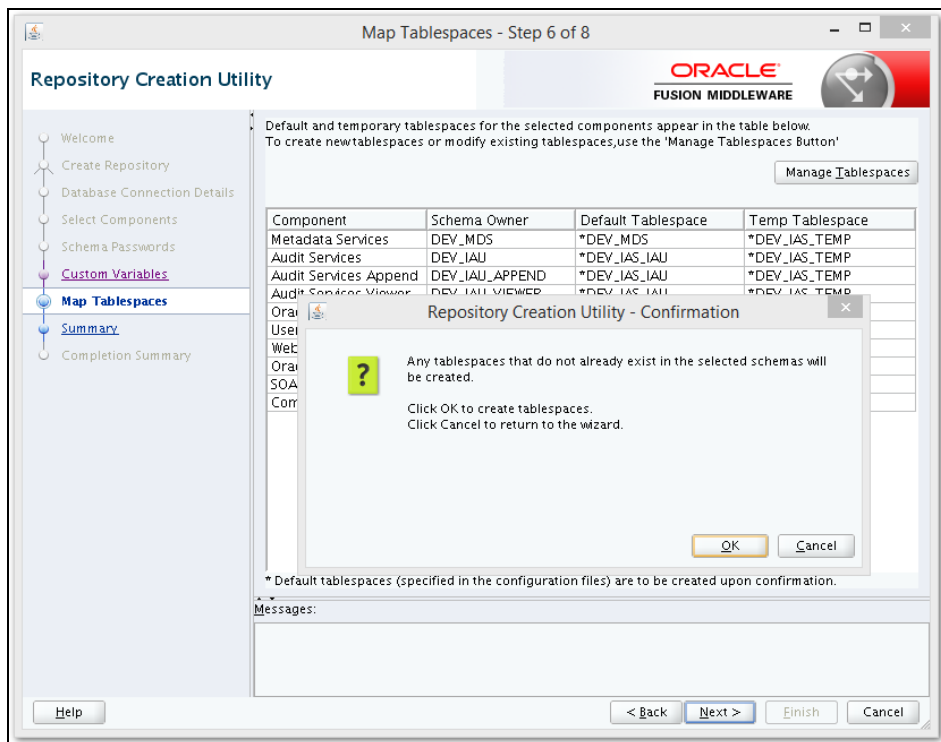
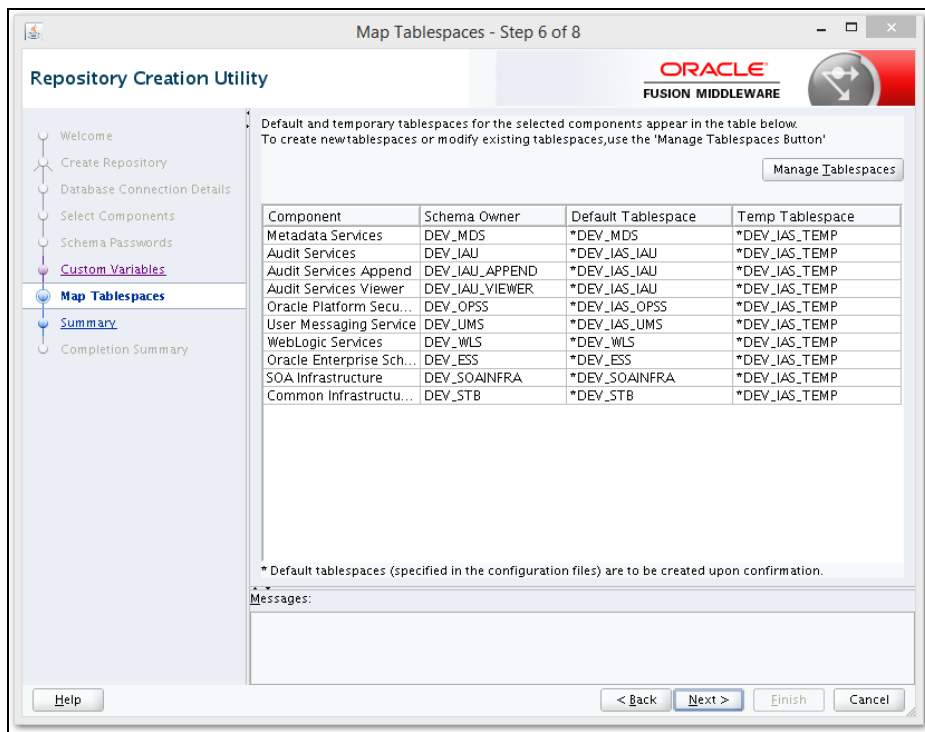
Enter value for the following custom variables.

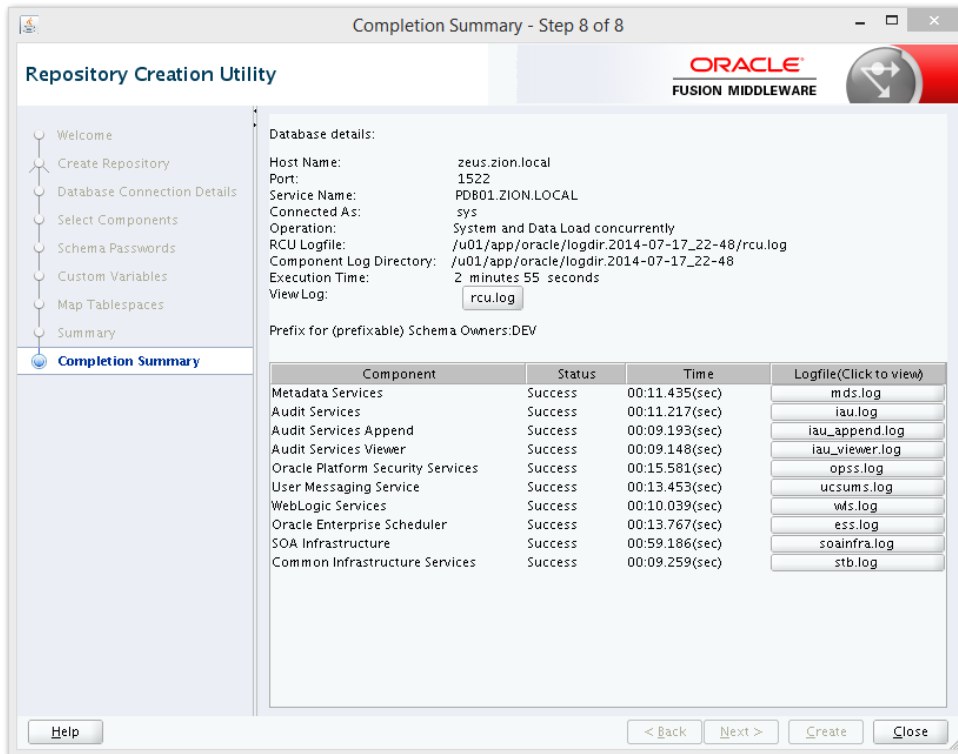
Component	Custom Variable	Value
SOA Infrastructure	Database Profile (SMALL/MED/LARGE)	SMALL
	Healthcare Integration(YES/NO)	NO

Messages:

Help < Back Next > Finish Cancel

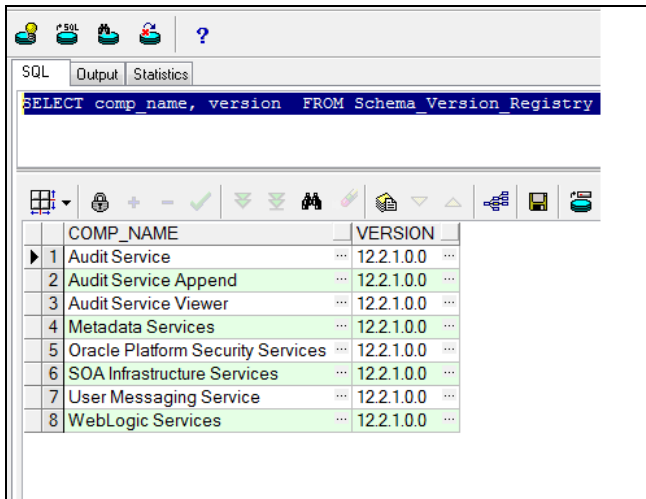
Step 6:





Note: Verifying Schema Version Numbers in the database where RCU is executed

```
SQL> select comp_name, version from schema_version_registry;
```

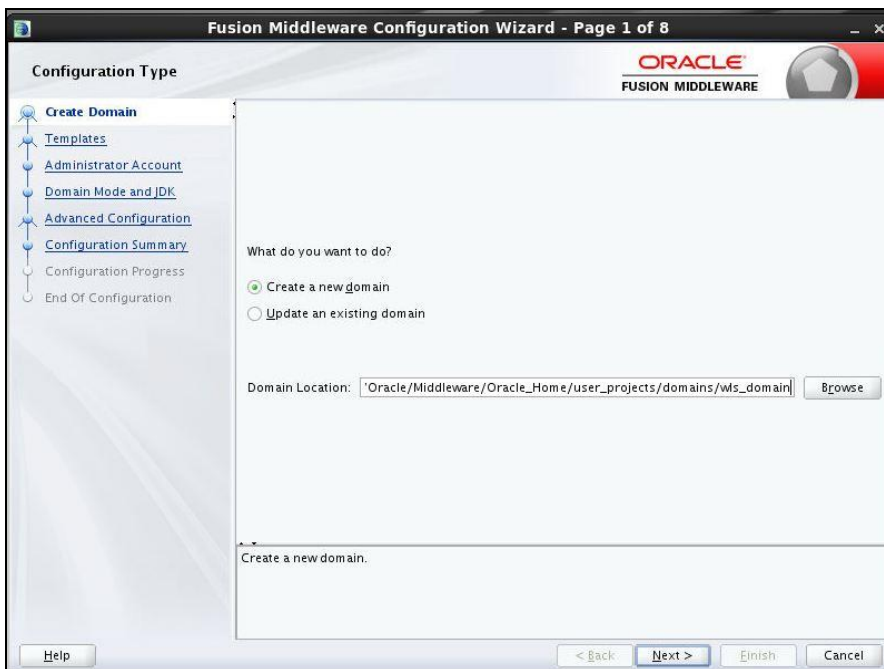


The screenshot shows the SQL Developer interface with the query `SELECT comp_name, version FROM Schema_Version_Registry` executed. The results are displayed in a table with two columns: `COMP_NAME` and `VERSION`. The table contains 8 rows of data, all with version `12.2.1.0.0`.

	COMP_NAME	VERSION
1	Audit Service	12.2.1.0.0
2	Audit Service Append	12.2.1.0.0
3	Audit Service Viewer	12.2.1.0.0
4	Metadata Services	12.2.1.0.0
5	Oracle Platform Security Services	12.2.1.0.0
6	SOA Infrastructure Services	12.2.1.0.0
7	User Messaging Service	12.2.1.0.0
8	WebLogic Services	12.2.1.0.0

2.7 WebLogic Server Domain Configuration

Step 1:

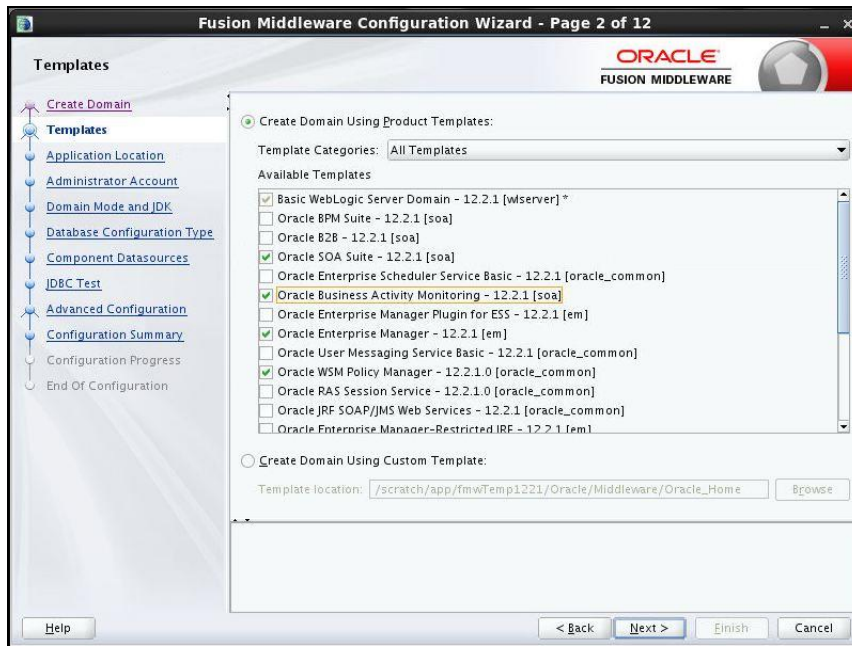


The screenshot shows the Fusion Middleware Configuration Wizard - Page 1 of 8. The wizard is titled "Fusion Middleware Configuration Wizard - Page 1 of 8" and features the Oracle Fusion Middleware logo. The "Configuration Type" section on the left lists the following steps: "Create Domain" (selected), "Templates", "Administrator Account", "Domain Mode and JDK", "Advanced Configuration", "Configuration Summary", "Configuration Progress", and "End Of Configuration". The main area of the wizard asks "What do you want to do?" and provides two options: "Create a new domain" (selected) and "Update an existing domain". Below these options, the "Domain Location" is specified as `'Oracle/Middleware/Oracle_Home/user_projects/domains/wls_domain'`, with a "Browse" button next to it. At the bottom of the wizard, there are buttons for "Help", "< Back", "Next >", "Finish", and "Cancel".

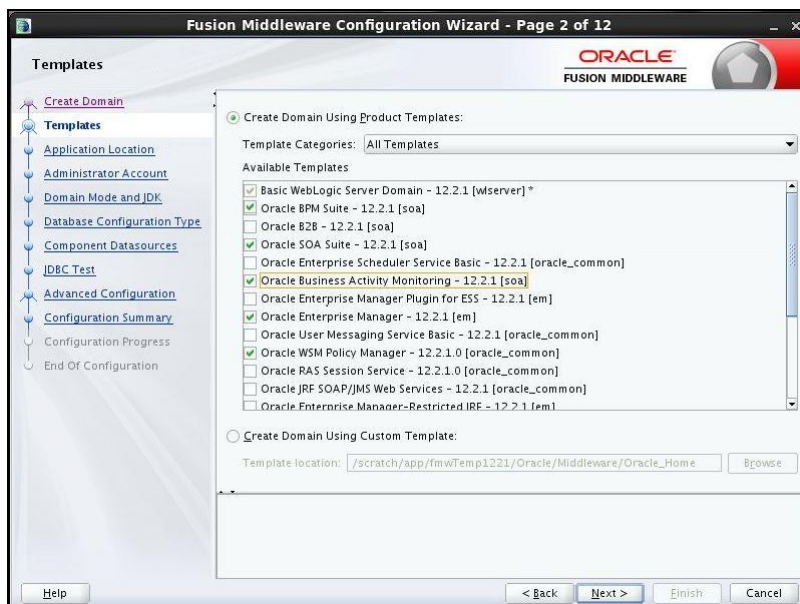
Step 2: Domain creation template

a. For BPEL only domain

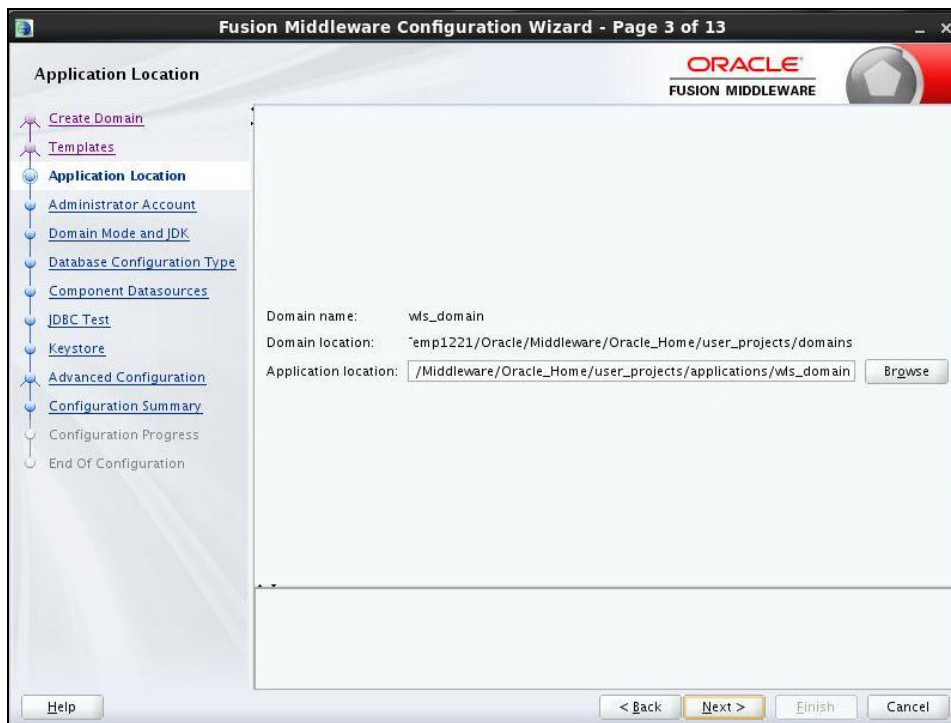
b.  Based on the requirement select the Oracle Business Activity Monitoring (BAM) check box.



c. For BPM enabled domain (If BPM process flows deployment is required then we have to select the Oracle BPM Suite – 12.2.1)



Step 3:

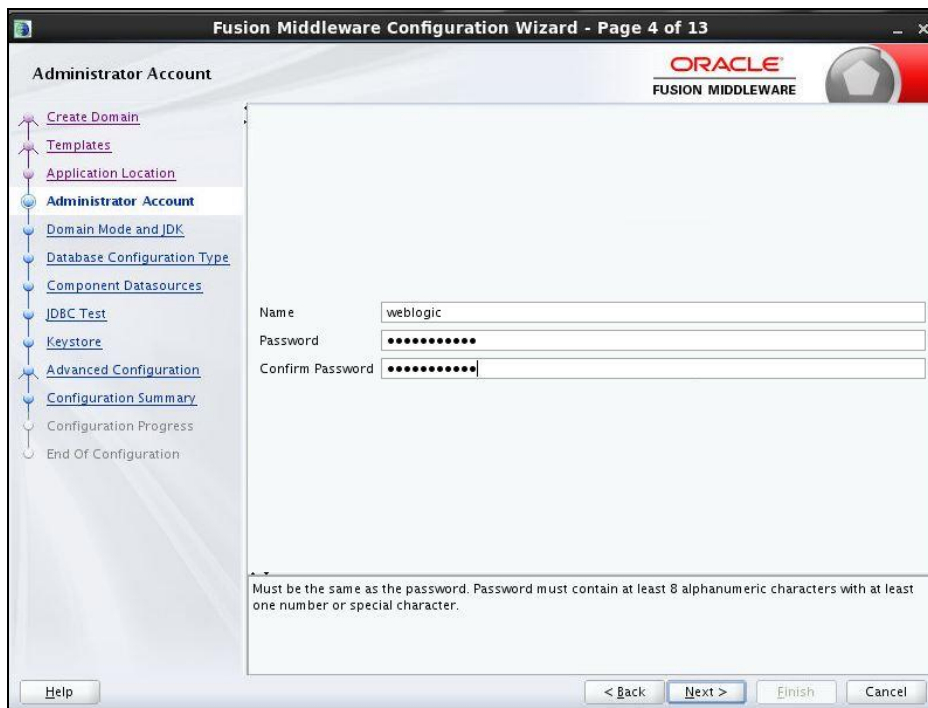


The screenshot shows the 'Application Location' step of the Fusion Middleware Configuration Wizard. The left sidebar contains a tree view with the following items: 'Create Domain' (selected), 'Templates', 'Application Location' (highlighted), 'Administrator Account', 'Domain Mode and JDK', 'Database Configuration Type', 'Component Datasources', 'JDBC Test', 'Keystore', 'Advanced Configuration', 'Configuration Summary', 'Configuration Progress', and 'End Of Configuration'. The main area displays the following configuration details:

- Domain name: wls_domain
- Domain location: /emp1221/Oracle/Middleware/Oracle_Home/user_projects/domains
- Application location: /Middleware/Oracle_Home/user_projects/applications/wls_domain (with a 'Browse' button)

At the bottom, there are navigation buttons: '< Back', 'Next >' (highlighted), 'Finish', and 'Cancel'. A 'Help' button is located in the bottom left corner.


Step 4: Defining the domain user name and password

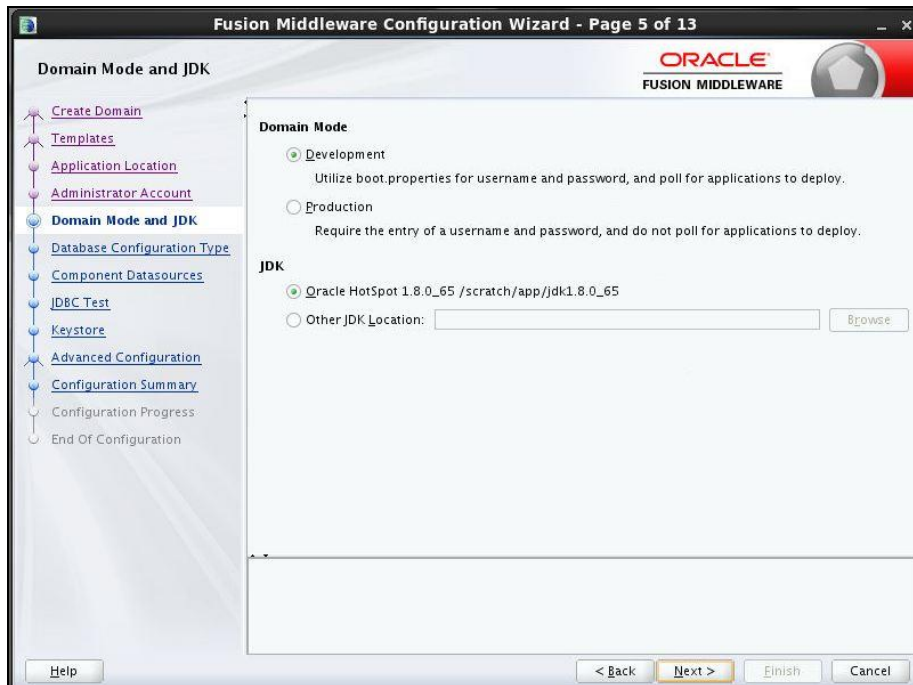


The screenshot shows the 'Administrator Account' step of the Fusion Middleware Configuration Wizard. The left sidebar contains a tree view with the following items: 'Create Domain', 'Templates', 'Application Location', 'Administrator Account' (highlighted), 'Domain Mode and JDK', 'Database Configuration Type', 'Component Datasources', 'JDBC Test', 'Keystore', 'Advanced Configuration', 'Configuration Summary', 'Configuration Progress', and 'End Of Configuration'. The main area displays the following configuration details:

- Name: weblogic
- Password: (masked with dots)
- Confirm Password: (masked with dots)

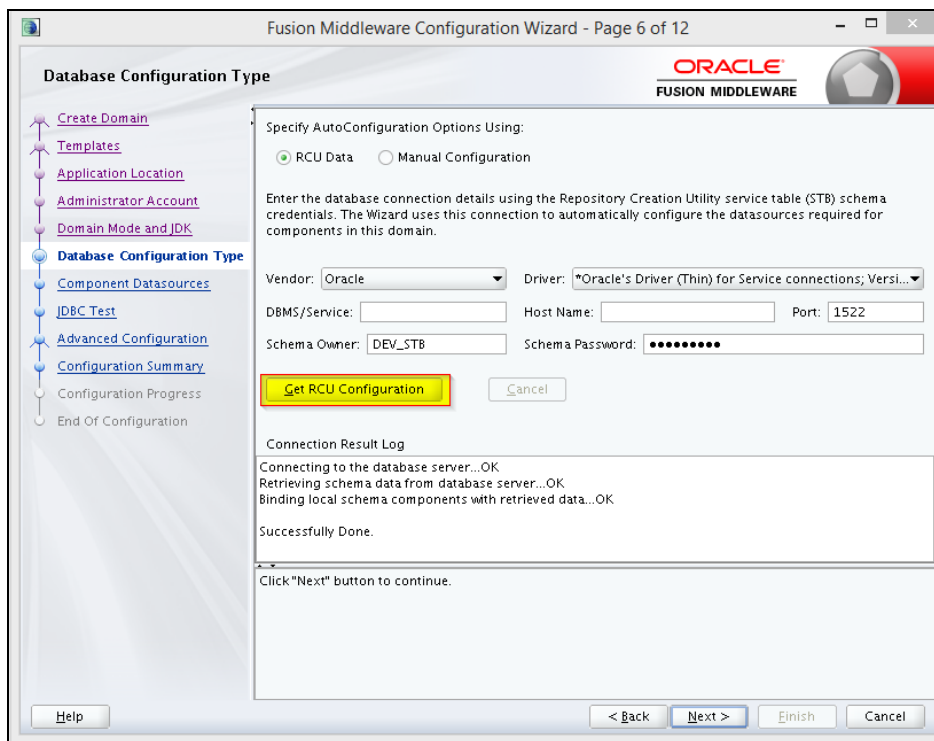
At the bottom, there is a note: 'Must be the same as the password. Password must contain at least 8 alphanumeric characters with at least one number or special character.' Below this note are navigation buttons: '< Back', 'Next >' (highlighted), 'Finish', and 'Cancel'. A 'Help' button is located in the bottom left corner.

Step 5:  Domain mode needs to be production for all installations.



The screenshot shows the 'Domain Mode and JDK' configuration page. The left sidebar lists the steps: Create Domain, Templates, Application Location, Administrator Account, Domain Mode and JDK (selected), Database Configuration Type, Component Datasources, JDBC Test, Keystore, Advanced Configuration, Configuration Summary, Configuration Progress, and End Of Configuration. The main area is titled 'Domain Mode and JDK'. Under 'Domain Mode', the 'Development' radio button is selected, with a description: 'Utilize boot.properties for username and password, and poll for applications to deploy.' The 'Production' radio button is unselected, with a description: 'Require the entry of a username and password, and do not poll for applications to deploy.' Under 'JDK', the 'Oracle HotSpot 1.8.0_65 /scratch/app/jdk1.8.0_65' radio button is selected. The 'Other JDK Location' radio button is unselected, followed by a text field and a 'Browse' button. At the bottom, there are buttons for '< Back', 'Next >', 'Finish', and 'Cancel'.

Step 6: Define the RCU schema details and the TNS connection details



The screenshot shows the 'Database Configuration Type' configuration page. The left sidebar lists the steps: Create Domain, Templates, Application Location, Administrator Account, Domain Mode and JDK, Database Configuration Type (selected), Component Datasources, JDBC Test, Advanced Configuration, Configuration Summary, Configuration Progress, and End Of Configuration. The main area is titled 'Database Configuration Type'. It says 'Specify AutoConfiguration Options Using:' with 'RCU Data' selected and 'Manual Configuration' unselected. Below this, it says: 'Enter the database connection details using the Repository Creation Utility service table (STB) schema credentials. The Wizard uses this connection to automatically configure the datasources required for components in this domain.' There are fields for 'Vendor' (Oracle), 'Driver' (Oracle's Driver (Thin) for Service connections; Versi...), 'DBMS/Service' (empty), 'Host Name' (empty), 'Port' (1522), 'Schema Owner' (DEV_STB), and 'Schema Password' (masked with dots). There is a yellow 'Get RCU Configuration' button and a 'Cancel' button. Below these is a 'Connection Result Log' section showing: 'Connecting to the database server...OK', 'Retrieving schema data from database server...OK', 'Binding local schema components with retrieved data...OK', and 'Successfully Done.' At the bottom, it says 'Click "Next" button to continue.' and there are buttons for '< Back', 'Next >', 'Finish', and 'Cancel'.

Step 7:

Fusion Middleware Configuration Wizard - Page 7 of 12

JDBC Component Schema

Vendor: Driver:

DBMS/Service: Host Name: Port:

Schema Owner: Schema Password:

Oracle RAC configuration for component schemas:

☐ Convert to GridLink ☐ Convert to RAC multi data source ☐ Don't convert

Edits to the data above will affect all checked rows in the table below:

<input type="checkbox"/>	Component Schema	DBMS/Service	Host Name	Port	Schema Owner	Schema Password
<input type="checkbox"/>	BAM Schema	ORPC12C		1522	DEV_SOAINFR	*****
<input type="checkbox"/>	BAM Job Sched Schema	ORPC12C		1522	DEV_WLS	*****
<input type="checkbox"/>	SOA EDN (QA)	ORPC12C		1522	DEV_SOAINFR	*****
<input type="checkbox"/>	SOA EDN (Local)	ORPC12C		1522	DEV_SOAINFR	*****
<input type="checkbox"/>	LocalSvcTbl Schema	ORPC12C		1522	DEV_STB	*****
<input type="checkbox"/>	User Messaging Service	ORPC12C		1522	DEV_UMS	*****
<input type="checkbox"/>	SOA (QA)	ORPC12C		1522	DEV_SOAINFR	*****
<input type="checkbox"/>	SOA (Local)	ORPC12C		1522	DEV_SOAINFR	*****
<input type="checkbox"/>	BAM MDS Schema	ORPC12C		1522	DEV_MDS	*****
<input type="checkbox"/>	OWSM MDS Schema	ORPC12C		1522	DEV_MDS	*****

Help < Back Next > Finish Cancel

Step 8

Fusion Middleware Configuration Wizard - Page 8 of 12

JDBC Component Schema Test

Status Component Schema JDBC Connection URL

✓	User Messaging Ser	jdbc:oraclethin://220387:1522/ORPC12C
✓	SOA (QA)	jdbc:oraclethin://220387:1522/ORPC12C
✓	SOA (Local)	jdbc:oraclethin://220387:1522/ORPC12C
✓	BAM MDS Schema	jdbc:oraclethin://220387:1522/ORPC12C
✓	OWSM MDS Schema	jdbc:oraclethin://220387:1522/ORPC12C
✓	SOA MDS	jdbc:oraclethin://220387:1522/ORPC12C
✓	OPSS Audit Schema	jdbc:oraclethin://220387:1522/ORPC12C
✓	OPSS Audit Viewer S	jdbc:oraclethin://220387:1522/ORPC12C
✓	OPSS Schema	jdbc:oraclethin://220387:1522/ORPC12C

Test Selected Connections Cancel Testing

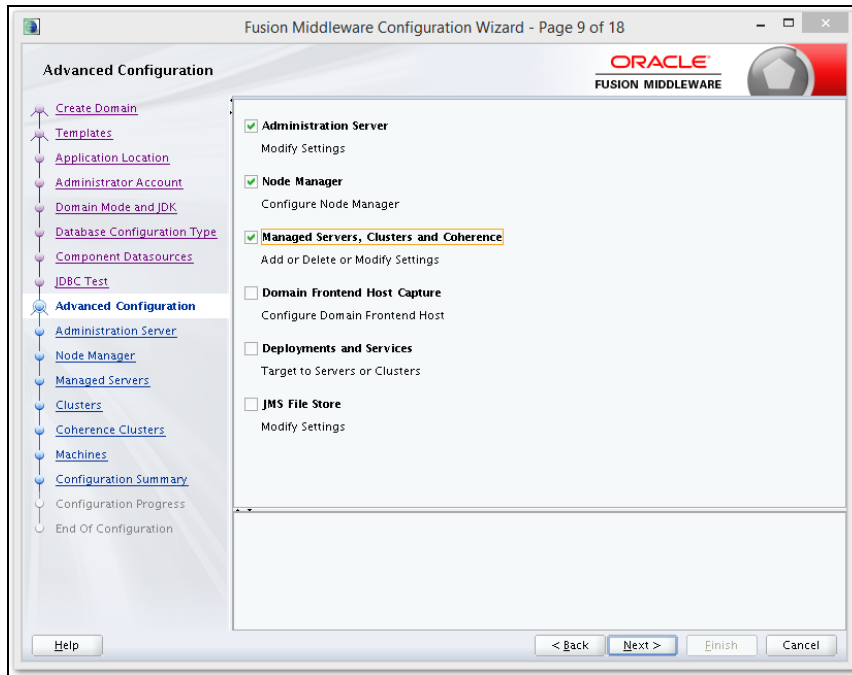
Connection Result Log

Component Schema=BAM Schema
 Driver=oracle.jdbc.xa.client.OracleXADataSource
 URL=jdbc:oraclethin://220387:1522/POB01.ZION.LOCAL
 User=DEV_SOAINFR
 Password=
 SQL Test=select 1 from schema_version_registry where owner=(select user from dual) and ref_type='SOA'

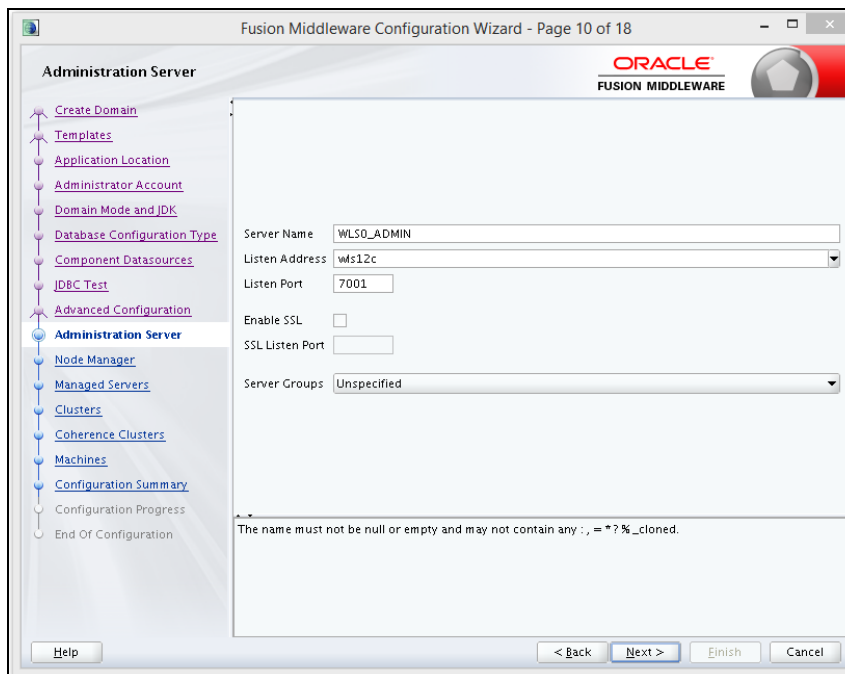
CFCPWK-64213: Test Successful
 CFCPWK-64213: JDBC connection test was successful

Help < Back Next > Finish Cancel

Step 9: Select the admin server, node manager and managed servers.



Step 10: Specify the server name as AdminServer and listener address as hostname. Based on the installation requirement, SSL need to be enabled.



Step 11: specify the server name as soa_server1 and bam_server1 for the managed servers.

Based on the installation requirement SSL need to be enabled for managed servers

Fusion Middleware Configuration Wizard - Page 12 of 18

Managed Servers

ORACLE
FUSION MIDDLEWARE

+ Add Clone Delete Disard Changes

Server Name	Listen Address	Listen Port	Enable SSL	SSL Listen Port	Server Groups
WLS1_SOA	wls12c-node1.zion.local	7003	<input type="checkbox"/>	Disabled	SOA-MGD-SVRS
WLS2_BAM	wls12c-node1.zion.local	7004	<input type="checkbox"/>	Disabled	BAM12-MGD-SVRS

Help < Back Next > Finish Cancel

Step 12:

Fusion Middleware Configuration Wizard - Page 15 of 19

Coherence Clusters

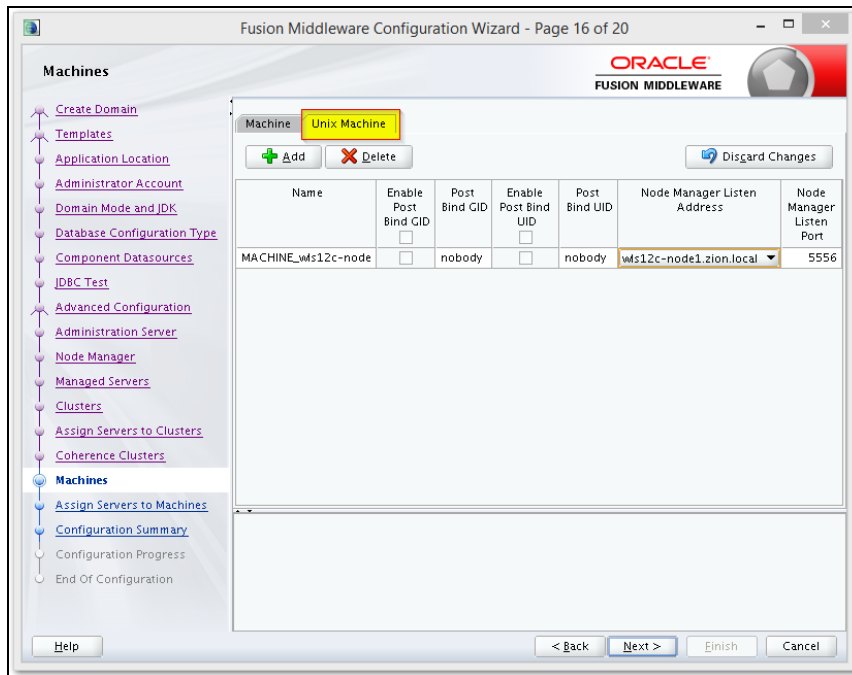
ORACLE
FUSION MIDDLEWARE

Disard Changes

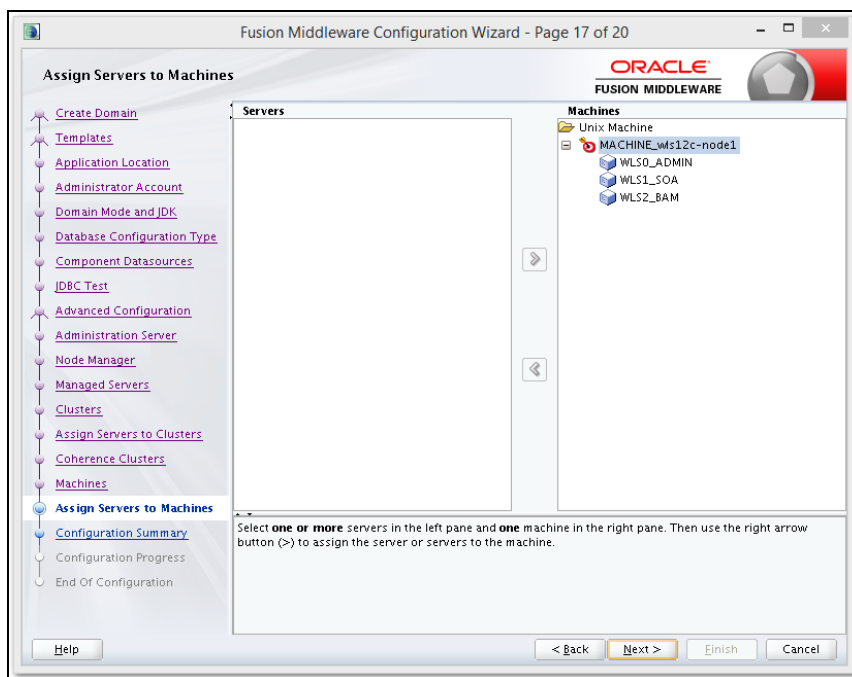
Cluster Name	Unicast Listen Port
defaultCoherenceCluster	0

Help < Back Next > Finish Cancel

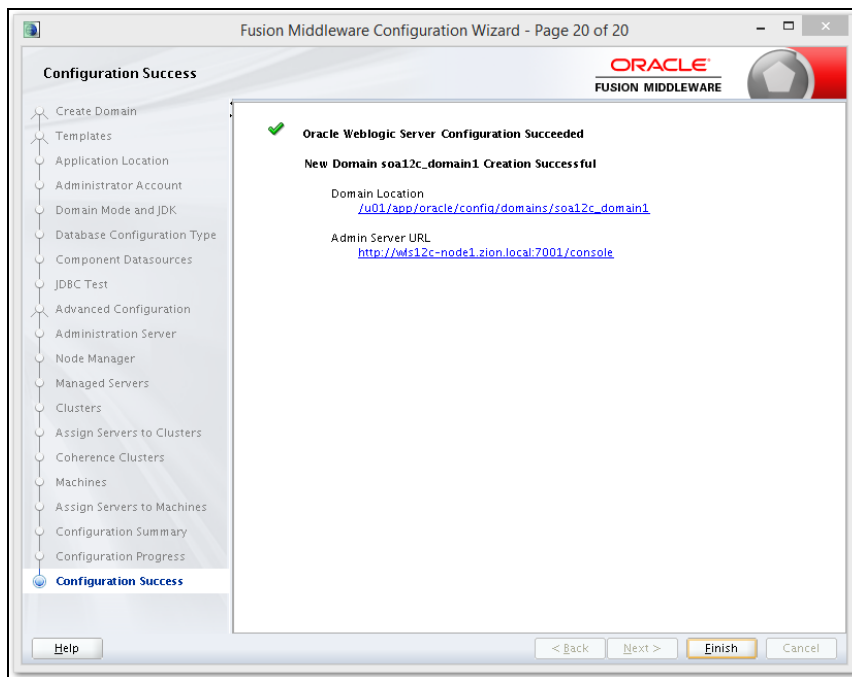
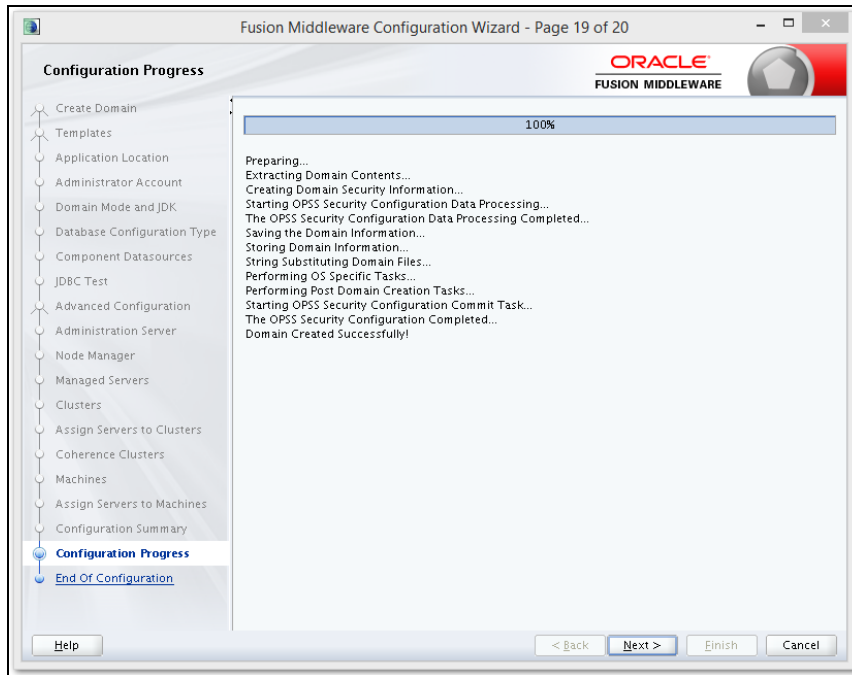
Step 13:



Step 14:



Step 15:



2.8 Remote Setup Configuration

Remote setup means SOA is installed in different machine and EAR is running in different machine.

Configuring FLEXCUBE Application to point to remote BPEL instances

1. Following Jars has to be copied to <Weblogic_home>\<domain>\lib

Jar to be copied	Path where the jar is available in SOA Middleware
bpm-services.jar	%Middleware Home%/soa/soa/modules/oracle.soa.workflow_11.1.1
fabric-runtime.jar	%Middleware Home%/soa/soa/modules/oracle.soa.fabric_11.1.1
tracking-fabric.jar	
tracking-api.jar	
jrf-api.jar	%Middleware Home%/oracle_common/modules/oracle.jrf
orabpel-common.jar	%Middleware Home%/soa/soa/modules/oracle.soa.bpel_11.1.1
orabpel-thirdparty.jar	
orabpel.jar	
soa-infra-mgmt.jar	%Middleware Home%/soa/soa/modules/oracle.soa.mgmt_11.1.1
xml.jar	%Middleware Home%/oracle_common/modules/oracle.xdk
xmlparserv2.jar	
mdsrt.jar	%Middleware Home%/oracle_common/modules/oracle.mds
com.oracle.webservices.fmw.wsc lient-rt-impl.jar	%Middleware Home%/oracle_common/modules

2. Additionally if BPMN enabled

Jar to be copied	Path where the jar is available in SOA Middleware
oracle.bpm.bpm-services.client.jar	%Middleware Home%/soa/soa/modules/oracle.bpm.client_11.1.1
oracle.bpm.bpm-services.interface.jar	
oracle.bpm.project.draw.jar	%Middleware Home%/soa/soa/modules/oracle.bpm.project_11.1.1
oracle.bpm.project.model.jar	
oracle.bpm.core.jar	%Middleware Home%/soa/soa/modules/oracle.bpm.runtime_11.1.1
oracle.bpm.ui.jar	
oracle.bpm.casemgmt.interface.jar	%Middleware Home%/soa/soa/modules/oracle.bpm.runtime_11.1.1

3. The jars copied have to be from same soa-suite version where BPEL processflows deployed. Ie, We cannot have jars from soa12.1.3.0.0 and BPEL deployed in soa12.2.1.0.0 It should be consistent.
4. The properties file **fcubs.properties** should read as below
- ```
WORKFLOW_CLIENT_TYPE =REMOTE
java.naming.provider.url =t3://10.184.74.143:8001/?partitionName=DOMAIN (Remote
soa server provider url)
java.naming.security.principal =weblogic (Remote bpel server userid)
java.naming.security.credentials=RF2MRTP/MG8TB1T5QG6lnQ== (Remote soa server
password)
dedicated.connection =true
domain.name =default (Remote soa server partition)
domain.pwd =RF2MRTP/MG8TB1T5QG6lnQ== (Remote soa server
password)
```

5. Configure domain password same as for both fcj ear domain and remote BPEL domain and DowngradeUntrusted Principals has to be checked

The screenshot shows the 'Advanced' tab of the WebLogic Administration Console. On the left, a 'System Status' panel shows 'Health of Running Servers' with 2 OK servers. The main area contains various security settings:

- Security Interoperability Mode:** default (dropdown)
- Credential:** [Redacted]
- Confirm Credential:** [Redacted]
- NodeManager Username:** weblogic
- NodeManager Password:** [Redacted]
- Confirm NodeManager Password:** [Redacted]
- Web App Files Case Insensitive:** false
- ☒ **Enforce Strict URL Pattern**
- ☒ **Downgrade Untrusted Principals**
- ☐ **Principal Equals Case Insensitive**
- ☐ **Principal Equals Compare DN and GUID**
- ☐ **Compatibility Connection Filters Enabled**
- ☐ **Allow Security Management Operations if Non-dynamic Changes have been Made**
- ☐ **Clear Text Credential Access Enabled**

The bottom status bar shows a search for 'x.lang.SecurityException' and navigation controls.



SOA Suite Setup for BPEL Process Flow  
[May] [2019]  
Version 14.1.0.0.0

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

Worldwide Inquiries:  
Phone: +91 22 6718 3000  
Fax: +91 22 6718 3001  
[www.oracle.com/financialservices/](http://www.oracle.com/financialservices/)

Copyright © [2007], [2019], 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.