SOA Suite Setup for BPEL Process Flow Oracle FLEXCUBE Universal Banking Release 12.1.0.0.0 [October] [2015]



# **Table of Contents**

1. PH	REFACE	
1.1 1.2 1.3 1.4	BACKGROUND AUDIENCE ORGANIZATION ACRONYMS AND ABBREVIATIONS	
2. RI	EPOSITORY CREATION UTILITY (RCU)	
2.1 2.2	INTRODUCTION Running RCU Utility	
3. OI	RACLE WEBLOGIC 11GR1 (10.3.6)	
3.1 3.2	Introduction Download URL from Oracle	
<b>4.</b> O	RACLE SOA SUITE 11GR1(11.1.1.7)	
4.1 4.2	INTRODUCTION Download URL from Oracle	
5. DO	OMAIN CONFIGURATION WITH ORACLE SOA SUITE	
5.1 5.2	INTRODUCTION New Domain Configuration	
6. O	RACLE HTTP SERVER INSTALLATION AND CONFIGURATION	6-1
6.1 6.2	INTRODUCTION INSTALLATION & CONFIGURATION	
7. GI	ENERATING SELF SIGNED CERTIFICATE AND CONFIGURING SSL	
7.1	ORAPKI UTILITY TO CREATE WALLET AND SELF SIGNED CERTIFICATE	



# 1. Preface

# 1.1 Background

This document provides an overview of configuring SOA suite for Oracle FLEXCUBE Universal Banking 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 process flows FLEXCUBE Universal Banking.

### 1.3 Organization

This manual is organized as follows:

- The chapter 2 (Repository Creation Utility (RCU)) guides you through the use of repository creation utility
- Subsequent chapters contain implementation specific information

# 1.4 Acronyms and Abbreviations

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



# 2. Repository Creation Utility (RCU)

# 2.1 Introduction

You can use Oracle Repository Creation Utility (RCU) to create schemas that are required for SOA suite installation.

Refer to the Oracle certification matrix for qualified databases.

### 2.2 Running RCU Utility

For running RCU utility, follow the steps given below.

1. Download the RCU utility from the following URL.

http://download.oracle.com/otn/nt/middleware/11g/ofm\_rcu\_win32\_11.1.1.2.1\_disk1\_1of1.zip

2. Unzip the contents into a folder.



3. Run the *rcu.bat* from the extracted folder.



🕌 Repository Creation Utility - We	Icome _ 🗖 🗙
Welcome	
🧼 Welcome	
Create Repository Database Connection Details Select Components Schema Passwords Map Tablespaces Summary Completion Summary	Welcome to Repository Creation Utility for Oracle Fusion Middleware.         The Repository Creation Utility enables you to create and drop component schemas that are part of Oracle Fusion Middleware.         Skip this Page Next Time         Messages:
Help	< Back Next > Einish Cancel

4. Select 'Create Repository' option and click 'Next' button.



🕌 Repository Creation Utility - Ste	p 2 of 7 : Database (	Connection Details
Database Connection Detai	ls	
Velcome	<u>D</u> atabase Type:	Oracle Database
Database Connection Details     Select Components	Hos <u>t</u> Name:	ddhp0240.i-flex.com
Schema Passwords	P <u>o</u> rt:	For RAC database, specify VIP name or one of the Node name as Host name.
Y Map Tablespaces Y Summary	<u>S</u> ervice Name:	orol.i-flex.com
О́ Completion Summary	<u>U</u> sername:	SYS User with DBA or SYSDBA privileges. Example:sys
	Password:	•••••
	<u>R</u> ole:	SYSDBA   One or more components may require SYSDBA role for the operation to succeed.
	Messages:	
Help	I L	< Back Next > Einish Cancel

5. Provide oracle database connection properties. SYS credentials are required. Once you have specified the details, click 'Next' button.

Repository Creation Utility - Checking Prerequisites						
Checking Global Prerequisites						
Initializing repository configuration metadata	00:02.266(sec)					
Obtain properties of the specified database	00:00.110(ms)					
Check requirement for specified database	00:00.437(ms)					
Execute pre create operations	00:00.984(ms)					
Operation completed. Click OK to continue to next page.						
	<u>o</u> ĸ					



🕌 Repository Creation Utility - Ste	p 3 of 7 : Select Components			
Select Components				11 <sup>g</sup>
Velcome Create Repository Database Connection Details Select Components Schema Passwords Map Tablespaces Summary Completion Summary	A Prefix groups the components as: Select an existing Prefix Component Component Concle AS Repository of Metadata Services Audit Services Enterprise Sche Component Metadata Services Enterprise Sche Component WebLogic Community SoA and BPM Infra SoA and BPM Infra SoA and BPM Infra SoA and BPM Infra WebLogic Community Dusiness Activity Duser Messaging Concentry Component Co	sociated with one deployment.	FUSION MIDDLEWARE         umeric characters. Prefix should no         not contain any special characters         Schema Owner         DEV_MDS         IAU         ORAESS         DEV_SOAINFRA         DEV_ORABAM         DEV_ORASDPM	
Help		< <u>B</u> i	ack Next > Einish	Cancel

- 6. Create a new prefix in order to add multiple SOA schemas in the same instance.
- 7. On selecting SOA & BPM Infrastructure, by default 'AS Common Schemas' and 'Metadata Services' check-boxes are checked. Do not uncheck these options.
- 8. If you do not wish to use 'Business Activity Monitoring', you may uncheck it.



#### Repository Creation Utility - Checking Prerequisites

Metadata Services	00:00.109(ms)
SOA Infrastructure	00:00.110(ms)
Business Activity Monitoring	00:00.110(ms)
🖉 User Messaging Service	00:00.109(ms)

#### Click 'OK'.

Repository Creation Utility - St	ep 4 of 7 : Schema Passwords			
chema Passwords				
VWelcome	Please enter the passwords for the numbers and the following special character.	e main and additional (auxiliary) characters: \$, # ,Password	schema users. Password should not start with a nur	can contain alphabets, nber or a special
Database Connection Details	Output Set Same passwords for all set S	chemas		
Select Components	Password •••••	•••		
Schema Passwords	Confirm Password	•••		
Map Tablespaces	Ollse main schema passwords	for auxiliary schemas		
Summary				
Completion Summary	Specify unterent passwords i		1	1
	Component	Schema Owner	Schema Password	Confirm Password
	Metadata Services	DEV_MDS		
	Business Activity Manitoring	DEV_SUAINERA		
	Licer Messaring Service	DEV_ORABAN		
	Maccarer			
Help			< Back Next >	Einish Cancel

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

9. Specify the passwords and click 'Next' button.



X

🕌 Repository Creation Utility - Ste	p 5 of 7 : Map Tablespaces			
Map Tablespaces			FUE	
Velcome Create Repository Database Connection Details	Choose tablespaces for the s below. To create new tablespaces o Component	elected components. The r modify existing tablespa Schema Owner	e default and temporary tablesp aces click the 'Manage Tablesp Default Tablespace	aces are specified in the table aces' button. Temp Tablespace
Schema Passwords Map Tablespaces Summary Completion Summary	SOA Infrastructure Business Activity Monit User Messaging Service	DEV_SOAINFRA DEV_ORABAM DEV_ORASDPM	*DEV_SUAINFRA *DEV_ORABAM *DEV_IAS_ORASDPM s) are to be created upon cont	*DEV_IAS_TEMP *DEV_IAS_TEMP *DEV_IAS_TEMP firmation.
	Messages:			
Help			< <u>B</u> ack <u>N</u> ext	t> Einish Cancel

10. Click 'Next'.

Repository Creation Utility					
?	Any tablespaces that do not already exist in the selected schemas will be created. Click OK to create tablespaces.				
	Click Cancel to return to the wizard.				

11. Click 'OK'.



Repository Creation Utility - Creating Tablespaces		×
Validating and Creating Tablespaces		
Check tablespace requirements for selected components	00:00.109(ms)	[
Create tablespaces in the repository database	00:21.547(sec)	
		1
Operation completed. Click OK to continue to next page.		1
	<u>o</u> ĸ	

#### 12. Tablespaces creation.

Repository Creation Utility - Ste	p 6 of 7 : Summary			
Summary				<b>DRACLE</b> FUSION MIDDLEWARE <b>11</b> 8
Velcome Create Repository Database Connection Details Select Components Schema Passwords Map Tablespaces	Database details: Host Name: ddhp0240.i-flex.c Port: 1521 Service Name: ORCL.I-FLEX.COI Connected As: SYS Operation: Create Prefix for (prefixable) Schema Ow	∞m M ners:DEV		
🧅 Summary	Component	Schema Owner	Tablespace Type	Tablespace Name
Completion Summary	Metadata Services SOA Infrastructure Business Activity Monitoring User Messaging Service	DEV_MDS DEV_SOAINFRA DEV_ORABAM DEV_ORASDPM	Default Temp Additional Default Temp Additional Default Temp Additional Default Temp Additional	DEV_MDS DEV_IAS_TEMP None DEV_SOAINFRA DEV_IAS_TEMP None DEV_ORABAM DEV_IAS_TEMP None DEV_IAS_ORASDPM DEV_IAS_ORASDPM DEV_IAS_TEMP None
Нер			< Back	Next > Create Cancel

13. Summary .



🕌 Repository Creation Utility - Ste	p 7 of 7 : Completion Summary			
Completion Summary	مر			
Vvelcome     Create Repository     Database Connection Details     Select Components     Schema Passwords     Map Tablespaces     Summary     Completion Summary	Database details: Host Name: ddhp0240.i-flex.com Port: 1521 Service Name: ORCLI-FLEX.COM Connected As: SYS Operation: Create RCU Logfile: Vidhp024018PEL111 _disk1_1of1/rcuHome/rcu/log/logdir.2010-04-05_06 Component Log Directory: Viddhp024018PEL111.21 _disk1_1of1/rcuHome/rcu/log/logdir.2010-04-05_06 Execution Time: 1 minute 16 second Prefix for (prefixable) Schema Owners:DEV	n .2\ofm_rcu_wir .08\rcu.log ofm_rcu_win_1 .08 s	11.1.1.20 11.1.1.20	
	Component	Status	Logfile	Time
	Metadata Services	Success	mds.log	00:02.578(sec)
	SOA Infrastructure	Success	soainfra.log	00:21.953(sec)
	Business Activity Monitoring	Success	bam.log	00:24.422(sec)
	User Messaging Service	Success	orasdpm.log	00:01.984(sec)
Help		(	< <u>B</u> ack <u>N</u> ext >	<u>C</u> reate <u>C</u> lose

14. Completion Summary



# 3. Oracle Weblogic 11gR1 (10.3.6)

# 3.1 Introduction

Oracle Weblogic 11gR1 I is the j2ee container for soa suite

The version required is 10.3.6

# 3.2 Download URL from Oracle

- 1. http://www.oracle.com/technology/software/products/ias/htdocs/wls\_main.html
- 2. Download based on your needs (Windows / Linux / Generic)
- 3. The installation process might slightly vary depending on the platform OS
- 4. This step may be skipped if the weblogic installation is available
- 5. Run the <....wls1032\_win32..>.exe

Oracle Installer		
	ORACLE	
	Preparing the installer	
	[Cancel]	



🔯 Oracle Installer - WebLogic 10.	.3.2.0	
Welcome This installer will guide you through the inst WebLogic 10.3.2.0	tallation of	ORACLE
	Instructions Click the Next button to p change entries in a previo may quit the installer at a	roceed to the next screen. If you want to us screen, click the Previous button. You ny time by clicking the Exit button.
ORACLE'		
E <u>x</u> it		Previous Next

6. Click 'Next'.



🗟 Oracle Installer - WebLogic 10.3.2.0		
Choose Middleware Home Dir Specify the Middleware Home where you w WebLogic 10.3.2.0.	ectory vish to install	ORACLE
<ul> <li>Middleware Home Type</li> <li>Use an existing Middleware Home</li> <li>Create a new Middleware Home</li> </ul>	D:\Oracle\Middleware	
Middleware Home Directory		
Browse Reset		
Exit		Previous Next

7. Specify the middleware home the same will be used during SOA suite installation.



🤯 Oracle Installer - WebLogic 10.3.2.0	
<b>Register for Security Updates</b> Provide your email address to be informed of security issues, install the product, and initiate configuration manager. <u>http://www.oracle.com/support/policies.html</u>	ORACLE
Email: Easier for you if you use your My Oracle Support ema	il address/username.
☑ I wish to receive security updates via My Oracle Support My Oracle Support Password:	
E⊻it	Previous Next

8. Register for security updates if needed



🔯 Oracle Installer - WebLogic 10.3.2	2.0
Choose Install Type Select the type of installation you wish to perfo	orm. ORACLE
Typical     Typical     Trial the following p     WebLogic Si     Oracle Enter	roduct(s) and component(s): erver prise Pack for Eclipse
○ Custom	
Choose software proc configuration.	ducts and components to install and perform optional
E <u>x</u> it	Previous Next

9. Choose typical or custom to customize installation





10. If custom, customize installation



🤕 Oracle Installer - WebLogic 10.3.2.0		
JDK Selection JDK(s) chosen for use with this product installation will be installe defaults if not deselected will be used in script string-substitution	d. Supported	ACLE.
	💍 Dis <u>c</u> ard (	Thanges
Bundled JDK:	Approximate installed size*	
Sun SDK 1.6.0_14	Highlighted item:	
✓ Oracle JRockit 1.6.0_14 SDK	All selected bundled JDK's:	319.6 MB
	Total of all selected items:	1,283.9 MB
	*Installer requires free disk space approximately 2x this total	
Local JDK:		
Browse		
E <u>x</u> it	Previous	Next

11. Select Bundled JDK that is needed



🔂 Oracle Installer - WebLogic 10.3.2.0	
Choose Product Installation Directories Provide the directories where you wish to install WebLogic 10.3.2.0.	ORACLE
	💍 Dis <u>c</u> ard Changes
Middleware Home Directory	
D:\Oracle2\Middleware	
Product Installation Directories	
The Product Home might contain shared utilities and any products or component are not set. WebLogic Server:	ts for which unique directories
D:\Oracle2\Middleware\wlserver_10.3	Browse
Oracle Enterprise Pack for Eclipse:	
D:\Oracle2\Middleware\oepe_11gR1P51	Browse
Exit	Previous <u>N</u> ext

12. Click 'Next'.



🔯 Oracle Installer - WebLogic 10.3.2.0	
Install Windows Service Install Windows Service to make indicated functionality available after machine reboot.	ORACLE <sup>.</sup>
Node Manager Service	
<ul> <li>Yes         <ul> <li>Install now. This enables remote start and health monitoring of Managed Servers.</li> <li>Node Manager Listen Port: 5556</li> <li>No</li> <li>Do not install now. See product documentation for post-install registration of Node Manager as a Service.</li> </ul> </li> </ul>	
E <u>x</u> it	Previous Next

13. Install Node manager if remote start and monitoring is required needed.



🗟 Oracle Installer - WebLogic 10.3.2.0
Choose Shortcut Location The installer creates shortcuts to Oracle components, samples, and tools. As a user with administrative privileges, you can specify where these shortcuts are created.
Select the Start Menu folder in which you want to create Oracle shortcuts:
O <b>Local user's Start Menu folder</b> Select this option if you need to ensure that other profiles registered on this machine will not have access to these shortcuts.
Exit Previous Next



Oracle	Installer	Wahlog	ic 10 3 2 0
Utacle	instatter	- wenrog	10.3.2.0

### Installation Summary

The following Products and JDKs will be installed.

🔁 WebLogic Server	Description
Core Application Server  Administration Console  Configuration Wizard and Upgrade F  Web 2.0 HTTP Pub-Sub Server  WebLogic SCA  WebLogic JDBC Drivers  Third Party JDBC Drivers  WebLogic Server Clients  WebLogic Web Server Plugins	Implements JEE technologies, Web services, and other leading Internet standards, to provide a reliable framework for highly available, scalable, and secure applications.
Server Examples     Oracle Enterprise Pack for Eclipse     Common Files     Exit	Approximate Installed Size         Highlighted item:       674.5 MB         Total of all selected items:       1,284.0 MB         Previous       Next

ORACLE

ORACLE





🤯 Oracle Installer - WebLogic 10.3.	.2.0	
Installation Complete Click the Done button to exit the installer.		ORACLE <sup>®</sup>
	Message Congratulations! Installation is complete.	
ORACLE <sup>.</sup>	🗹 Run Quickstart	
E <u>x</u> it		Previous Done



# 4. Oracle SOA Suite 11gR1(11.1.1.7)

# 4.1 Introduction

Oracle SOA suite 11gR1 (11.1.1.7) is required for running FCUBS BPEL Process flows

The version required is 11.1.1.7

### 4.2 **Download URL from Oracle**

- 1. http://www.oracle.com/technology/software/products/ias/htdocs/wls\_main.html
- 2. Download based on your needs (Windows / Linux / Generic)
- 3. The installation process might slightly vary depending on the platform / mode if installation (package / net..)
- 4. Unzip to a folder and run from Disk1 folder setup.exe



🖻 Disk1				
<u>File E</u> dit <u>V</u> iew F <u>a</u> vorites <u>T</u> ools <u>H</u> elp				<b>1</b>
G Back 🝷 🕥 🚽 🏂 🔎 Search 🎼	Folders .			
Address 🛅 \\ddhp0453\50A11G\11.2\ofm_soa_ge	eric_11.1.1.2.0_disk1_1of1\Disk1		•	🖌 🔁 🖸
File and Folder Tasks 🔕 🔂	Size	Type File Folder	Date Modified 11/4/2009 3:53 AM	
Image: Rename this file       Image: Stage         Image: Rename this file       Image: Rename this file         Image: Rename this file<	taller 12 KB exe 72 KB	File Folder File Folder File Application	11/4/2009 3:51 AM 11/4/2009 3:54 AM 10/28/2009 10:15 AM 8/21/2009 2:59 AM	
Other Places     Image: Control of the second				
Details 📚				



👫 Oracle Universal Installer	_ 🗆 🗵
Starting Oracle Universal Installer	
Checking if CPU speed is above 300 MHz . Actual 2327 MHz Passed Checking swap space: must be greater than 500 MB . Actual 4092 MB Pass Checking monitor: must be configured to display at least 256 colors Higher 4 256 . Actual 65536 Passed Preparing to launch Oracle Universal Installer from C:\DOCUME~1\piyushko\L0 ~1\Temp\1\OraInstall2010-04-05_07-26-39AM. Please wait Please specify JRE/JDK location < Ex. /home/jre >, <location>/bin/java show xist : C:/Program Files/Java/jdk1.6.0_16/jre</location>	sed than DCALS uld e
	•

5. Specify JRE/JDK location for installation to proceed.



Oracle Fusion Middleware 11g	SOA Suite Installation - Step 1 of 6	_[
Welcome		1
Velcome		_
Prerequisite Checks	Welcome to Oracle Fusion Middleware 11 <i>g</i> SOA Suite Installer.	-
Specify Installation Location	Before proceeding, create schemas for all products you want to	
Installation Summary	install. Schemas are created using the Repository Creation Utility. For more information, see the Repository Creation Utility User's Guide and the Oracle	
Installation Progress	Fusion Middleware Installation Guide for Oracle SOA Suite.	
Installation Complete	Before proceeding, install a WebLogic server. For more information, see the WebLogic Server installation instructions in the <i>Oracle Fusion</i> <i>Middleware Installation Guide for Oracle SOA Suite</i> .	
	select Next to begin the installation.	-
	Copyright (c) 1996, 2009, Oracle and/or its affiliates. All rights reserved.	
Help	< <u>B</u> ack <b>Next &gt;</b> Einish C	ance
	Elapsed Tim	a: Om

6. Click'Next'.

🗅 Oracle Fusion Middleware 11g SOA Suite Installation - Step 2 of 6 🛛 📃 🗖 🔀					
Prerequisite Checks					
Ŷ	<u>Welcome</u>	Selection	Check	Progress	Status
þ	Prerequisite Checks	4	Checking operating system certification	100%	×
è	Specify Installation Location	4	Checking service pack	100%	×
ļ.	Installation Summary	4	Checking physical memory	100%	~
ļ	Installation Progress				
j.	Installation Complete				
			hecking operating system certification	bort <u>R</u> etry	<u>C</u> ontinue
			hecking service pack hecking physical memory		
ļ	<u>H</u> elp		< <u>B</u> ack	Next > Eini	sh Cancel
_					

7. Click 'Next'.



🗢 Oracle Fusion Middleware 11g SOA Suite Installation - Step 3 of 6 🛛 📃 🖾				
Specify Installation Location				
<u>Welcome</u>				
Prerequisite Checks				
Specify Installation Locatic				
unstallation Summary				
Installation Progress				
Installation Complete	Oracle <u>Mi</u> ddleware Home:	C:\Oracle\Middleware Browse		
	Oracle Home Directory:	Oracle_SOA1		
	····· 🛕 The WebLogic Server	must already be installed in the same Middleware Home.		
*****				
Help		< Back Next > Einish Cancel		
		Elapsed Time: 2m 7s		

8. Specify the same middleware home that was used for Weblogic server.



🗢 Oracle Fusion Middleware 11g SOA Suite Installation - Step 4 of 6 📃 📃 🗙			
Installation Summa	ary ORACLE TUSION MIDDLEWARE 118		
<u>Welcome</u>	⊡…Install Oracle SOA Suite		
Prerequisite Checks	Directory Details		
Specify Installation Location	Middleware Home Location: C:\Oracle\Middleware		
Installation Summary	Oracle Home Location: C:\Oracle\Middleware\Oracle_SOA1     Dials Cases		
	Available: 4057 MB		
	Applications         Oracle BPEL PM, Mediator, Rules, B2B, Human Workflow         Oracle Business Activity Monitoring (BAM)         Oracle Enterprise Manager         Save Response File:         Save         To change this configuration before installing, select the topic you want to change in the pane on the left.		
	To install this configuration, select Install.		
Help	< Back Next > Install Cancel		
	Elapsed Time: 4m 37s		

9. Click 'Install'.



Oracle Fusion Middleware 11g	SOA Suite Installation - Step 5 of 6			
Installation Progre	ss ORACLE 118			
♀ Welcome	Progress			
Prerequisite Checks	1%			
Specify Installation Location	Copying Files			
Installation Summary	Install Log C: Program Files Oracle Inventory logs Install 2010-04-05_07-26-39AM.log			
Installation Progress	Starting File Conv			
O Installation Complete	Installing: Installer SDK Component 11.1.0.7.0			
Oracle Fusion Middleware More Flexibility				
Help	< <u>B</u> ack <u>N</u> ext > <u>F</u> inish <b>Cancel</b>			
	Elapsed Time: 6m 2s			



Oracle Fusion Middleware 11g	SOA Suite Installation - Step 5 of 6			
Installation Progre	ss ORACLE' 118			
Q Welcome	Progress			
Prerequisite Checks	100%			
Specify Installation Location	Setting up			
Installation Summary	Install Log C: Program Files Oracle Inventory logs Install 2010-04-05_07-26-39AM.log			
Installation Progress	Installation Successful.			
Installation Complete	Starting execution of post install scripts Execution of post install scripts completed			
Oracle Fusion Middleware Improved Experience				
	ORACLE'			
Help	< Back Next > Einish Cancel			
	Elapsed Time: 17m 22s			

10. Click 'Next'.



Oracle Fusion Middleware 11	g SOA Suite Installation - Step 6 of 6 📃 🔲 🗙
Installation Compl	ete
♀ Welcome	⊡Install Oracle SOA Suite
↓ ♀ Prerequisite Checks	Directory Details
Specify Installation Location	Middleware Home Location: C:\Oracle\Middleware
	Oracle Home Location: C:\Oracle\Middleware\Oracle_SOA1
Installation Summary	🖻 Disk Space
Installation Progress	····Oracle Home Size: 657 MB
Installation Complete	Available: 2619 MB
	Cracle BPEL PM, Mediator, Rules, B2B, Human Workflow
	Oracle Business Activity Monitoring (BAM)
	Cracle Enterprise Manager
	Save Installation Details: Save
	Oracle SOA Suite installation completed successfully
◀	
Help	< Back Next > Finish Cancel
	Elapsed Time: 17m 47s



# 5. Domain Configuration with Oracle SOA suite

### 5.1 Introduction

New domain can be configured or an existing domain can be extended with Oracle SOA suite components.

# 5.2 New Domain Configuration

1. Run Config command

<middleware\_home> wlserver\_10.3\common\bin\config or <middleware\_home> \Oracle\_SOA1\common\bin\config





Fusion Middleware Configuration Wizard	
Welcome	ORACLE
⊙ Create a new WebLogic domain	
Create a WebLogic domain in your projects directory.	
O Extend an existing WebLogic domain	
Use this option to add new components to an existing domain and modify configuration settings.	
	Previous <u>N</u> ext

2. Create a new domain or extend an existing domain to include soa suite components.



💽 Fusion Middleware Configuration Wizard	
Select Domain Source	ORACLE
• Generate a domain configured automatically to support the following product	s:
Basic WebLogic Server Domain - 10.3.2.0 [wlserver_10.3] *	
✓ Oracle SOA Suite - 11.1.1.0 [Oracle_SOA1]	
Oracle Enterprise Manager - 11.1.1.0 [oracle_common]	
Oracle Business Activity Monitoring - 11.1.1.0 [Oracle_SOA1]	
Oracle WSM Policy Manager - 11.1.1.0 [oracle_common]	
Oracle DRF Webbervices Asynchronous services - 11.1.1.0 [oracle_common]	
V Oracle Skr - 11.1.1.0 [oracle_common]	
Webbogic Advanced web Services Extension - 10.3.2.0 [wiserver_10.3]	
O Base this domain on an existing template	
Template location; C:\Oracle\Middleware Brows	ie -
	Previous Next

- On selecting Oracle SOA suite it automatically selects Oracle WSM Policy Manager, Oracle JRF
- 4. Select Oracle Enterprise Manager for managing / monitoring BPEL processes



Fusion Middleware Configuration Wizard		_ 🗆 X
Specify Domain Name and Location		ORACLE
Enter the na	me and location for the domain and its applic	ations:
Domain name:	domain1	
Domain location:	C:\Oracle\Middleware\user_projects\domains	Browse
Application location:	C:\Oracle\Middleware\user_projects\applications	Browse
Exit Help		Previous Next



🛐 Fusion Middleware Configu	ation Wizard	_ 🗆 🗙
Configure Administrato	User Name and Password	ORACLE
💆 Discard Changes		
*User name:	weblogic	
*User password:	***	
*Confirm user password:	*****	
Description:	This user is the default administrator.	
E <u>x</u> it <u>H</u> elp		Previous Next

5. Configure Administrator user / password.



🛐 Fusion Middleware Configuration Wizard	
Configure Server Start Mode and JDK	ORACLE <sup>.</sup>
Before putting your domain into production, make sure that th Production Environment' in the WebLogic Server documentatio To use WebLogic JRockit in production, Oracle recommends de For information about WebLogic JRockit, see the WebLogic JRo	e production environment is secure. For more information, see the topic 'Securing a n. veloping and testing your applications with WebLogic JRockit early in the project cycle. ockit documentation.
WebLogic Domain Startup Mode	JDK Selection
Oevelopment Mode     Utilize boot.properties for username and     password and poll for applications to deploy.     Sun JDK recommended for better startup     performance during iterative development.     O Production Mode     Require the entry of a username and password     and do not poll for applications to deploy.     WebLogic JRockit JDK recommended for better     runtime performance and management.	Available JDKs      Sun SDK 1.6.0_14 @ C:\Oracle\Middleware\jdk160_14_R27     JRockit SDK 1.6.0_14 @ C:\Oracle\Middleware\jrockit_160_      d      Dther JDK      Location:      Browse
, Exit Help	Previous Next

6. Select jdk depending on the startup mode.

Fusio	n Middleware Configuration	Wizard				
Config	jure JDBC Component	Schema				ORACLE
Note:	Change only the input fields be	low that you wish to modif	y and values will be applie	d to all selecte	d rows.	
	Vendor:			DBMS/Ser	vice:	
	Driver:			✓ Host Na	ame:	
Sche	ema Owner:			F	Port:	
Schema	a Password:					
	Configure select	ed component schemas a: DBMS/Service	RAC multi data source so	hemas in the n	ext panel. Schema Owner	Schema Password
	SOA Infrastructure	orcl	dbhost.example.com	1521	DEV_SOAINFRA	
	User Messaging Service	orcl	dbhost.example.com	1521	DEV_ORASDPM	
	SOA MDS Schema	ord	dbhost.example.com	1521	DEV_MDS	
E <u>x</u> i	it <u>H</u> elp					Previous Next

- 7. Configure schema components.
- 8. Select all the check boxes.



Fusio	on Middlewa	are Configuration V	Vizard				
onfi	gure JDB(	C Component S	Schema				ORACLE
Note:	Change onl	y the input fields belo	w that you wish to modif	y and values will be applied	l to all selected	l rows.	
	Vendor:	Oracle	-		DBMS/Serv	ice: orcl	
	Driver:	*Oracle's Driver (Th	nin) for Service connectio	ons; Versions:9.0.1,9.2.0	Host Na	me: dbhost.example	e.com
Sch	ema Owner:	Varies among compo	onent schemas		P	ort: 1521	
chem	a Password:	Enter a value					
	Com SOA Infrasti	ponent Schema ructure	DBMS/Service	Host Name	Port 1521	Schema Owner	Schema Password
	SOA Infrast	ructure	orcl	dbhost.example.com	1521	DEV_SOAINFRA	
	User Messag	ging Service	orcl	dbhost.example.com	1521	DEV_ORASDPM	
	OWSM MDS	Schema	orcl	dbhost.example.com	1521	DEV_MDS	
<b>V</b>	SOA MDS SC	nema	orci	dbhost.example.com	1521	DEV_MDS	
E	<u>(</u> it <u>H</u> e	łþ					Previous Next

9. Provide the db parameters used during schema creation (RCU Utility)



Fusion Middlev	ware Configuration Wizard	
est Compon	ient Schema	ORACLE
Status	Component Schema SOA Infrastructure User Messaging Service OWSM MDS Schema SOA MDS Schema	JDBC Connection URL jdbc:oracle:thin:@ddhp0240.i-flex.com:1521/ORCL.I-FLEX.COM jdbc:oracle:thin:@ddhp0240.i-flex.com:1521/ORCL.I-FLEX.COM jdbc:oracle:thin:@ddhp0240.i-flex.com:1521/ORCL.I-FLEX.COM
Select All	Inselect All Test Connection:	5
Component Scl Driver=oracle. URL=jdbc:orad User=DEV_MD Password=*** SQL Test=sele CFGFWK-2085	hema=SOA MDS Schema jdbc.oracleDriver cle:thin:@ddhp0240.i-flex.com:1 5 ******** ct 1 from schema_version_regist 0: Test Successful!	521/ORCL.I-FLEX.COM  ry where owner=(select user from dual) and mr_type='MD5' and version='11.1.1.2.0'  ▼
E <u>x</u> it	Help	Previous Next

10. Test the database connectivity



Fusion Middleware Configuration Wiz	ard	
Select Optional Configuration		ORACLE
	<ul> <li>Administration Server Modify Settings</li> <li>Managed Servers, Clusters and Machines Add or Delete Modify Settings</li> <li>Deployments and Services Target to Servers or Clusters</li> <li>JMS File Store Modify Settings</li> </ul>	
Exit Help	RDBMS Security Store     Modify Settings	Previous Next

11. Select the Administration Server & Managed Server

🗿 Fusion Middleware (	Configuration Wizard	
Configure the Adi	ninistration Server	ORACLE
💍 Discard Changes		
*Name:	AdminServer	
*Listen address:	All Local Addresses	<b>•</b>
Listen port:	7003	
SSL listen port:	N/A	
SSL enabled:		
	_	
E <u>x</u> it <u>H</u> elp		Previous <u>N</u> ext



12. Configure the Administration Server & Managed Server.





🛐 Fusion Middleware Configuration W	izard	
Creating Domain		ORACLE
	Progress: 85%	
ORACLE	Preparing Extracting Domain Contents Creating Domain Security Information Saving the Domain Information Storing Domain Information String Substituting Domain Files	
		🗌 Start Admin Server
Exit Help		Previous Done



Fusion Middleware Configuration W	izard	
Creating Domain		ORACLE
	Progress: 100% Preparing Extracting Domain Contents	
	Creating Domain Security Information Saving the Domain Information Storing Domain Information String Substituting Domain Files Performing OS Specific Tasks Performing Post Domain Creation Tasks Domain Created Successfully! Domain Location: C:\Oracle\Middleware\user_projects\domains\domain1 Admin Server URL: http://DDHP0468:7003	
ORACLE		Start Admin Server
Exit Help		Previous Done



# 6. Oracle HTTP server Installation and Configuration

# 6.1 Introduction

Oracle HTTP server is typically configured in front of weblogic application server , The choice of deployment and SSL terminator will depend on the deployment configuration expected .

Download URL – Please check for appropriate version , The version depicted here is 11.1.1.7

http://www.oracle.com/technology/software/index.html

### 6.2 Installation & Configuration

1. Run setup.exe



Oracle Fusion Middleware 1	1g Web Tier Utilities Installation - Step 1 of 13
Welcome	EUSION MIDDLEWARE 118
Welcome	
Install and Configure	Welcome to Oracle Fusion Middleware 11g Web Tier Utilities Installer.
Prerequisite Checks	For additional information and installation instructions, please refer to the Oracle
Specify Installation Location	Fusion Middleware Installation Guide for Web Tier Utilities.
Configure Components	Click <u>H</u> elp at any time for context-sensitive help.
Specify WebLogic Domain	Click Next to begin the installation.
Specify Component Details	
Configure Ports	
Specify Security Updates	
Installation Summary	Copyright (c) 1999, 2009, Oracle and/or its affiliates. All rights reserved.
Installation Progress	
Configuration Progress	
Installation Complete	
300000	
	< <u>Back</u> <u>Finish</u> Cancel
	Elapsed Time: 15m 38s

2. Select Install & Configure



3. Check if prerequisite checks are passed.



🗢 Oracle Fusion Middleware 11g Web Tier Utilities Installation - Step 3 of 13				
Prerequisite Check	S	-0		<b>.e</b> ware <b>11</b> <i>g</i>
<u>Welcome</u>	Selection	Check	Progress	Status
Install and Configure	4	Checking operating system certification	100%	~
Prerequisite Checks	4	Checking service pack	100%	~
Specify Installation Location	1	Checking physical memory	100%	1
Configure Components				
Specify WebLogic Domain				
Specify Component Details				
Configure Ports				
Specify Security Updates				
Installation Summary		Ab	ort Retry	Continue
Installation Progress				
Configuration Progress	⊕ <b>√</b> C	hecking operating system certification		
Installation Complete		necking service pack hecking physical memory		
101101		<u> </u>		
Help		< <u>B</u> ack	<u>N</u> ext > Einis	sh Cancel
			Ela	psed Time: 16m 43s

4. Select the middleware home where weblogic server is already installed.



🖸 Oracle Fusion Middleware 11g Web Tier Utilities Installation - Step 4 of 13		
Specify Installation	Location	
Welcome		
Install and Configure		
Prerequisite Checks		
Specify Installation Locatic		
Configure Components		
Specify WebLogic Domain	Oracle Middleware Home: D:\Oracle2\Middleware Browse	
Specify Component Details	Oracle Home Directory: Oracle_WT1	
Configure Ports		
Specify Security Updates		
Installation Summary		
Installation Progress		
Configuration Progress	🛕 The WebLogic Server must already be installed in the same Middleware Home.	
Installation Complete		
	< <u>B</u> ack <u>N</u> ext > <u>Einish</u> Cancel	
	Elapsed Time: 17m 8	

5. Choose components Oracle HTTP Server / Oracle Webcache.



🗢 Oracle Fusion Middleware 11g Web Tier Utilities Installation - Step 5 of 13		
Configure Compon	ents ORACLE fusion middleware 118	
Welcome		
Install and Configure	✓ Oracle <u>H</u> TTP Server	
Prerequisite Checks	✓ Oracle Web Cache	
Specify Installation Location		
Configure Components	Oracle Process Manager Notification (OPMN) is always configured	
Specify WebLogic Domain		
Specify Component Details		
Configure Ports	V Associate Selected Companyota with Webl agis Demain	
Specify Security Updates	Associate Selected components with WebLogic bornain	
Installation Summary		
Installation Progress		
Configuration Progress		
o Installation Complete		
Help	< <u>Back</u> <u>Next</u> > <u>Einish</u> Cancel	
	Elapsed Time: 44m 53s	

6. Specify weblogic domain details.



🖸 Oracle Fusion Middleware 11g Web Tier Utilities Installation - Step 6 of 14		
Specify WebLogic I	Domain	EUSION MIDDLEWARE 118
Welcome         Install and Configure         Prerequisite Checks         Specify Installation Locatic         Configure Components         Specify WebLogic Dom         Specify Component Details         Web Cache Administrator         Configure Ports         Specify Security Updates         Installation Summary         Installation Progress         Configuration Progress         Installation Complete	<u>D</u> omain Host Name: Domain <u>P</u> ort No: <u>U</u> ser Name: Passw <u>o</u> rd:	localhost   7001   weblogic   ••••••••     < Back Next > Finish Cancel
		Elapsed Time: 45m 28s

7. Location where components to be installed.

🖸 Oracle Fusion Middleware 11g Web Tier Utilities Installation - Step 7 of 14		
Specify Component Details		
Welcome		
Install and Configure		
Prerequisite Checks	Instance Home Location:	cle WT1\instances\instance1 Browse
Specify Installation Locatio	instance none Location.	
Configure Components	In <u>s</u> tance Name:	instance1
Specify WebLogic Domain		
Specify Component De		
Web Cache Administrator	OHS Component Name:	ohs1
Configure Ports	Web Cache Component Name:	webcache1
Specify Security Updates		
Installation Summary		
Installation Progress		
Configuration Progress		
Installation Complete		
Help		< <u>Back</u> <u>N</u> ext> <u>F</u> inish Cancel
		Elapsed Time: 45m 58s

8. Credentials for web cache administrator.



🗢 Oracle Fusion Middleware 11g Web Tier Utilities Installation - Step 8 of 14 📃 🗖 🔀		
Web Cache Admin Password	istrator ORACLE 118	
<ul> <li>Welcome</li> <li>Install and Configure</li> <li>Prerequisite Checks</li> <li>Specify Installation Locatic</li> <li>Configure Components</li> <li>Specify WebLogic Domain</li> <li>Specify Component Details</li> <li>Web Cache Administrat</li> <li>Configure Ports</li> <li>Specify Security Updates</li> <li>Installation Summary</li> <li>Installation Progress</li> </ul>	Web Cache Administrator Password:         Confirm Password:         ••••••••         Valid passwords are 5 to 30 characters long, must begin with an alphabetic character, use only alphanumeric, underscore ( ), dollar (\$) or pound (#) characters and include at	
Configuration Progress	least one number.	
Help	< <u>B</u> ack <u>N</u> ext > <u>Finish</u> Cancel	
	Elapsed Time: 46m 23s	

9. Port configuration – Use specify port if custom ports are to be configured for various services.



Oracle Fusion Middleware 1	1g Web Tier Utilities Installation - Step 9 of 14 📃 🗖 🗙
Configure Ports	EVALUATE TO A CONTRACT OF A CONTRACTACTACTACTACTACTACTACTACTACTACTACTACTA
🌳 <u>Welcome</u> 📥	
Install and Configure	
Prerequisite Checks	<u>A</u> uto Port Configuration
Specify Installation Locatio	
Configure Components	Specify Ports using Configuration file
Specify WebLogic Domain	
Specify Component Details	File name: C:\Documents and Settings\sushanthek\staticpor Browse
Web Cache Administrator	<u>V</u> iew/Edit File
Configure Ports	
Specify Security Updates	
Installation Summary	
<ul> <li>Installation Progress</li> </ul>	
Configuration Progress	
Installation Complete	
Help	< <u>B</u> ack <u>N</u> ext > <u>F</u> inish Cancel
	Elapsed Time: 46m 43s

10. If you are an administrator and require security updates from oracle , provide details and subscribe.



🗢 Oracle Fusion Middleware 11g Web Tier Utilities Installation - Step 10 of 14 📃 🗖 🔀		
Specify Security U	pdates	
Welcome         Install and Configure         Prerequisite Checks         Specify Installation Locatic         Configure Components         Specify WebLogic Domain         Specify Component Details         Web Cache Administrator         Web Cache Administrator         Configure Ports         Specify Security Update         Installation Summary         Installation Progress         Configuration Progress         Installation Complete	Provide your email address to be informed of security issues, install the product and initiate configuration manager. <u>View details</u> . 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	< <u>Back</u> <u>N</u> ext> <u>F</u> inish Cancel	
	Elapsed Time: 47m 13s	

11. Review installation summary.



12. Review installation progress.



🖸 Oracle Fusion Middleware 11g Web Tier Utilities Installation - Step 12 of 14 📃 🗖 🔀		
Installation Progres	SS ORACLE' 118	
Specify Webbogic Bontan     Specify Component Details     Web Cache Administrator     Configure Ports     Specify Security Updates     Installation Summary     Installation Progress	Progress 52% Copying Files Install Log C:\Program Files\Oracle\Inventory\logs\install2010-04-19_03-12-24PM.log Installing: Oracle Fusion Middleware Admin Config 11.1.1.2.0 Installing: Oracle Application One Off patches Component 11.1.1.2.0 Installing: Oracle Change IP Component 11.1.1.2.0 Installing: OracleAS Documentation 11.1.1.2.0	
Oracle Fusion Middleware Productivity. Flexibility. Experience. ORACLE		
Help	<u>Elapsed Time: 51m 33s</u>	

13. Review configuration progress.





14. Installation complete.

Oracle Fusion Middleware	11g Web Tier Utilities Configuration - Step 10 of 10 📃 🗖 🔀
Installation Comple	ete ORACLE TIS
Q Welcome	System Components
Configure Components	·····Oracle Process Manager Notification (OPMN)
Specify WebLogic Domain	Oracle Web Cache
Specify Component Details	Accessible URLs
Veb Cache Administrator Pas	·····Oracle HTTP Server URL : http://CVRZE0013.i-flex.com:7777
Configure Ports	·····Oracle HTTP Server SSL URL : https://CVRZE0013.i-flex.com:4443
i O Specify Security Updates	····Oracle Web Cache SSL URL : https://CVRZE0013.i-flex.com:7789
Installation Summary	·····Oracle Web Cache Administration URL : http://CVRZE0013.i-flex.com:7786
Configuration Progress	Oracle Web Cache Statistics URL : http://CVRZE0013.i-flex.com:7787
Installation Complete	Save Installation Summary: Save
	Oracle Fusion Middleware 11g Web Tier Utilities configured successfully.
Help	< <u>B</u> ack <u>N</u> ext > <u>Finish</u> Cancel
	Elapsed Time: 45m 18s



# 7. Generating Self Signed Certificate and Configuring SSL

Self signed certificates are used for development environment , for production environment certificate from a issuing authorities like (verisign / thwarte..) are to be used.

# 7.1 <u>Orapki Utility to Create Wallet and Self Signed</u> <u>Certificate</u>

This document gives details of using orapki utility for creating wallet and self signed certificates.

1. Orapki Utility

With

- Oracle Client < bin>
- WLS <<middleware>/oracle\_common/bin
- 2. Wallet creation

orapki wallet create -wallet D:\oracle2\Middleware\wallet\ -pwd welcome123 -auto\_login

3. Generating self signed certificatey

orapki wallet add -wallet D:\oracle2\Middleware\wallet\ -dn "CN=cvrze0013.iflex.com,OU=BPD,O=Oracle,L=iflexpark,ST=Karnataka,C=IN" -keysize 1024 -self\_signed validity 365 -pwd welcome123

4. Add wallet to ssl.conf

ssl.conf can be located in <middleware\_home>/config/OHS/<ohsname>

E.g

<middleware\_home>Oracle\_WT1/instances/instance1/config/OHS/ohs1/ssl.conf

# SSL Certificate Revocation List Check

# Valid values are On and Off

SSLCRLCheck Off

#Path to the wallet

#### SSLWallet /data1/appsrvrs/wls1032/Oracle/Middleware/wallet

<FilesMatch "\.(cgi|shtml|phtml|php)\$">

SSLOptions +StdEnvVars



</FilesMatch>

5. Mod\_wl\_ohs.conf modification to forward request to weblogic server

Mod\_wl\_ohs.conf can be located in <middleware\_home>/<ohs\_home>/instances/<instance\_name>/config/OHS/<ohsname>

E.g

<middleware\_home>Oracle\_WT1/instances/instance1/config/OHS/ohs1/mod\_wl\_ohs.coonf

Sample configuration given below , please modify as per the application context and ports configured.

This is a template to configure mod\_weblogic.

LoadModule weblogic\_module "\${ORACLE\_HOME}/ohs/modules/mod\_wl\_ohs.so"

# This empty block is needed to save mod\_wl related configuration from EM to this file when changes are made at the Base Virtual Host Level

<lfModule weblogic\_module>

- # WebLogicHost <WEBLOGIC\_HOST>
- # WebLogicPort <WEBLOGIC\_PORT>
- # Debug ON
- # WLLogFile /tmp/weblogic.log
- # MatchExpression \*.jsp

</lfModule>

- # <Location /weblogic>
- # SetHandler weblogic-handler
- # PathTrim /weblogic
- # ErrorPage http:/WEBLOGIC\_HOME:WEBLOGIC\_PORT/
- # </Location>
- <Location /console>

SetHandler weblogic-handler

WebLogicHost localhost

WeblogicPort 9001



</Location>

<Location /em>

SetHandler weblogic-handler

WebLogicHost localhost

WeblogicPort 9001

</Location>

<Location /consolehelp>

SetHandler weblogic-handler

WebLogicHost localhost

WeblogicPort 9001

</Location>

<Location /FCJNeoWeb>

SetHandler weblogic-handler

WebLogicHost localhost

WeblogicPort 9003

</Location>

<Location /FCJNeoFgl>

SetHandler weblogic-handler

WebLogicHost localhost

WeblogicPort 9003

</Location>

<Location /ELGatewayClient>

SetHandler weblogic-handler

WebLogicHost localhost

WeblogicPort 9003

</Location>

ORACLE



SOA Suite Setup for BPEL Process Flow [October] [2015] Version 12.1.0.0.0

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