FCUBS Process Flow Deployment Prerequisites for Oracle FLEXCUBE Installer Oracle FLEXCUBE Universal Banking Release 12.1.0.0.0 [October] [2015]

Table of Contents

1. I	NTRODUCTION	3
1.1 1.2 1.3	BACKGROUND Organization of the Document Acronyms and Abbreviations	3
2. C	DRACLE JDEVELOPER IDE	4
2.1 2.2	INTRODUCTION Obtaining JDeveloper IDE	
3. C	CREATING APPLICATION SERVER CONNECTION	5
3.1 3.2	INTRODUCTION Application Sever Connection	
4. L	OADING FCUBS PROCESS FLOWS IN ORACLE JDEVELOPER	9
4.1 4.2	INTRODUCTION LOADING THE PROCESS	
5. D	DEPLOYMENT PROFILE AND CONFIGURATION PLAN	14
5.1 5.2 5.3	INTRODUCTION UPDATING THE CONFIGURATION PLAN UPDATING THE DATASOURCE NAME	14
6. D	DEPLOYING A SINGLE COMPOSITE APPLICATION USING JDEVELOPER	17
6.1 6.2	INTRODUCTION DEPLOYING THE APPLICATION	
	DEPLOYING A SINGLE COMPOSITE APPLICATION VIA ENTERPRISE MANAGER	•••
	CONSOLE	
7.1 7.2	INTRODUCTION Deploying the Application	
	DEPLOYING MULTIPLE COMPOSITE APPLICATION USING JDEVELOPER	
8.1 8.2	INTRODUCTION CREATING THE DEPLOYMENT PROFILE	
9. D	DEPLOYING MDS APPLICATION USING JDEVELOPER	
9.1 9.2	INTRODUCTION Deploying the Application	
10.	DEPLOYMENT AND CONFIGURATION OF ORACLE BAM REPORTS	41



1. Introduction

1.1 Background

This document provides detailed description on deploying FCUBS BPEL process flows onto a weblogic server configured with soa suite components .This document will cover different approaches for deploying a process.The audience for this document will be the deployment teams of FCUBS BPEL process flows

1.2 Organization of the Document

The first chapter of this document gives an introduction with brief background and organization of the document. Subsequent chapters of this document will give the details of the various deployment options.

1.3 Acronyms and Abbreviations

Acronyms	Description
BPEL	BPEL Process Flow
BAM	Business Activity Monitoring
SOA Application	With Fusion middleware 12c BPEL process flows becomes part of a SOA Composite application.

2. Oracle JDeveloper IDE

2.1 Introduction

Oracle JDeveloper is the IDE used for BPEL process design and development. It's recommended that the version of JDeveloper used should be in sync with the Oracle SOA suite that is used for BPEL runtime. E.g. (Oracle SOA suite – 12.1.3 + Oracle JDeveloper 12.1.3). Though different versions of Oracle SOA suite and JDeveloper might be compatible it is recommended to go through the releases notes and documentation prior to their usage.

2.2 Obtaining JDeveloper IDE

Oracle JDeveloper IDE can be downloaded from oracle website, the hyperlink provided might have been updated. Please check appropriate location prior to download and refer installation and release notes documentation of Oracle JDeveloper for Installation instructions.

http://www.oracle.com/technetwork/middleware/bpm/downloads/index.html

Run fmw_12.1.3.0.0_bpm_quickstart.jar to install jdeveloper with bpm enabled.



3. Creating Application server connection

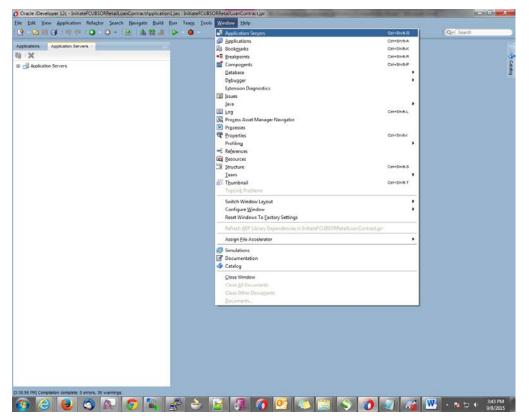
3.1 Introduction

Oracle JDeveloper supports deployment of BPEL process flows to WebLogic application servers via JDeveloper application server connection.

3.2 Application Sever Connection

After JDeveloper has been updated with SOA extension, The IDE can be launched from 'Programs' menu or installation location.

- After JDeveloper is launched
- Click on → windows → Application Servers Navigator



- To create a new WebLogic server connection
- Right click 'Application Servers'
- Click on → New Application Server



		LoanContractApplication1.jv			and the state of t	and the second second	-	0 ×
	ipplication Keragtor Jean	rch Navigate Build Bun	Team Toole Wandow	w Heib			Quel Search	
Applications App	ication Servers	1.5						
🕢 🗆 💥 Application Ser	10000 ·							Catalog
 Di vobecasoni ser 	SAP Adapter Migration							Capital Capita
	New Application Server	-						
	Import Esport							
	Befresh	CHAR						
Application Servers		and the second						
🙃 🙆	🥹 🕥 🔊	💿 🛍 🤞	3 🗻 📷	3 0	07 27 22		W	3:44 PM 9/8/2015

- The "Create Application Server Connection" wizard is launched as shown below.
- Select the Radio button "Standalone Server"
- Click "Next" to proceed with the configuration

🔷 Create Application S	erver Connection - Step 1 of 3
Usage	010101010101010101010101
Usage Name and Type Finish	 Indicate how the application server will be used. Standalone Server A standalone server is not started, stopped, nor configured by JDeveloper. An application must be manually deployed to a standalone server. Integrated Server An integrated server can be started and stopped by JDevloper. Applications can be automatically deployed to the server by the Run or Debug commands. Only WebLogic servers can be used in this way.
Help	< Back Next > Einish Cancel

FCUBS Process Flow Deployment

Page 6 of 45



- Provide a "Connection Name" to identify the server connection.
- Provide the "Connection Type " to identify the server type.
- Select "WebLogic server <version>"
- Click "Next" to proceed with the configuration

Create Application Serve	er Connection - Step 2 of 3	X
Name and Type		3
Visage Name and Type Finish	Specify a unique name and type for the connection. The name must be a valid Java identifier. Create connection in: IDE Connections Connection Name: Dev Connection Type: WebLogic 12.x	
Help	< <u>B</u> ack <u>N</u> ext > <u>F</u> inish Can	cel

- Provide username / password to connect to the server
- The same username / password that was used while configuring the server is used.
- Click "Next" to proceed with the configuration

Create Application Serv	rer Connection - Step 3 of 6
Authentication	
A Usage	Specify a username and password to authenticate the connection.
Name and Type	Username:
Authentication	weblogic
<u>Configuration</u>	Password:
o Test	••••••
O Finish	
Help	< Back Next > Einish Cancel



- Provide the WebLogic server hostname and the port number of the Admin server.
- Provide the domain name under which the server has been configured.
- Click "Next" to proceed with the configuration

O Create Application Serve	er Connection - Step 4 of	6		×
Configuration			010101010101010101000000000000000000000	
Usage Name and Type Authentication Configuration Test Finish	WebLogic Server connet Domain of the target will WebLogic Hostname (Adr ofss2221222 Port: 7401 Always use SSL WebLogic Domain: devLdomain	be verified	ame and port to establish a conr : SSL Port: 7002	iection. The
Help		< <u>B</u> ack <u>N</u> e	ext > <u>F</u> inish	Cancel

- Click on the 'Test Connection' to ensure the configuration is done correctly.
- All the tests should go thru and indicate "success" as shown below that will indicate a correct configuration

est		01010101010101010104040404040	5
Usage Name and Type Authentication Configuration Test Finish	Click Test Connection to determine if the int connection with the application server. Jest Connection Status: Testing JSR-160 Runtime Testing JSR-160 DomainRuntime Testing JSR-160 Edit Testing HTTP Testing HTTP Testing HTTP Authentication Testing JSR-88 Testing JSR-88 Testing JSR-88 Testing JSR-88 Testing JSR-88 Testing JSR-88-DCPA Testing JSR-88-DEP-MGR Testing JSR-88-DEP-MGR-LOCAL 12 of 12 tests successful.	formation specified successfully establis	ies a
Help	< Back	<u>V</u> ext > <u>F</u> inish Ca	incel

• Click "Finish" to proceed and complete the configuration



4. Loading FCUBS Process flows in Oracle JDeveloper

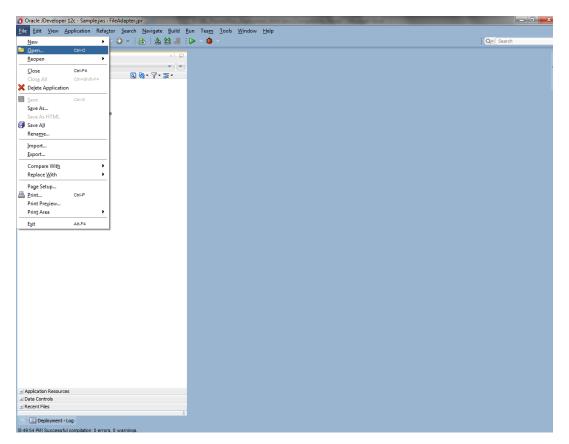
4.1 Introduction

The FCUBS BPEL process flows that are to be deployed needs to be obtained from the release area and unzipped into a folder location.

4.2 Loading the Process

After JDeveloper IDE is launched from 'Programs' menu or installation location.

• Click on \rightarrow File \rightarrow Open

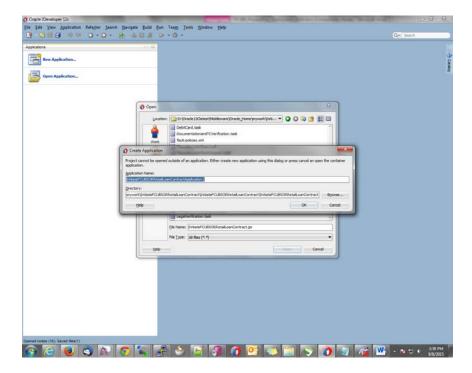


- Navigate to the folder where process flow is deployed
- Locate and select the ".jpr" file under the folder <process_name>
- Click 'Open' to load the process flow in JDeveloper

ORACLE

Application		Qer (Search
	Copen Locator: Distance 2004test PMddeniner (Disade y Lenne (ny workfildes)) Colorent associated Townfordson, task Colorent associated Townfordson, task	
Opened noses (10): Saved Tite(1)		

- If this is the first Process flow that is being loaded JDeveloper will prompt for an Application Name and Location where the application file will be stored
- Provide an application name and folder path for the same.
- Click in "Ok" to proceed with loading of the process flow.

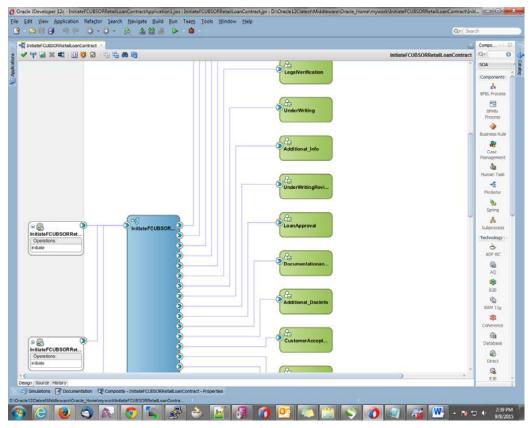


ORACLE

FCUBS Process Flow Deployment

Page 10 of 45

- The process flow is loaded into JDeveloper and is displayed as given below
- Clicking on the "composite.xml" under "SOA Content" in Design mode will display the process flow as illustrated in the screen shot.



• All the required process flow can be loaded in the similar fashion from File Menu into the same application.

	Build Run Team Tools Window Help	
3 - 2 = 6 = 10 = 10 = 10 = 10 = 10 = 10		Qvi Seath
pplcations		
ShitateFCUBSORRetail.comContractApplication1		
Projects 🛛 🖏 • 🍸 •	E	E.
Sessar Custon Retail can Cantract	Coren Project Location Corent Core	
	Ele Name: GateWayOnterface.go Pile Type: Java Project (*.gor)	
	Rep	Open Cancel
Application Resources		
Data Controls Recent Files		
Recent Files	Retail, panContract/initiate/ CUBSORRetail, panContract/initiate/ CUBSORRetail, panContract/composite xmi	ALL
Recent Files	s 🚁 🛎 🗃 🗿 🖭 🤜 😁 🔊	

FCUBS Process Flow Deployment Page 11 of 45

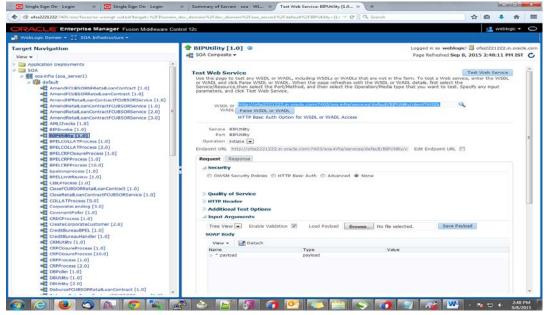
• After all the necessary process flows are loaded, all process flows will be displayed in the "Application Navigator" menu as illustrated in the screen shot.

In case of Dependent Process Flows like InitiateFCUBSORRetailLoanContract, having other Process Flows as services and subprocesses the composite.xml file has to be modified with the runtime wsdl location of the subprocess (like BIPUtility). The Runtime wsdl is obtained from the em console as shown in the screen shot.

Image: State of the second state of the sec	sin_dev_domain%2Fdev_domain%2Fssa_serve1%2Fs	Selaula 12/ESPUnity+(1 T C]	Q. Search		☆白◆★■
DRACLE Enterprise Manager Fusion Middleware	Control 12c				🕵 инворс - С
🛿 WebLogic Domain + 🚆 SOA Infrastructure +					
arget Navigation	🔮 BIPUtility [1.0] 💿				ogici 📋 ofss2221222.in.orade.co
View +	SOA Composite +			Page Refreshed Se	p 8, 2015 2:46:57 PM IST 🕻
Apolication Deployments □ 50A ≪	Active Retre Shut Down Dashboard Composite Defection File	Test Settings			🧬 Reliced Links •
ArriendFCUESORNFRetail.oanContract [1.0]					
AmendFCUESORRetail.oanContract [1.0]	hame				Component Type
Amendi#Retal.joanContractFOUBSORServe [1,0] Amendi#Retal.joanContractFOUBSORServe [1,0] MemoRetal.oanContractFOUBSORServe [2,0] MamoRetal.oanContractFOUBSORServe [2,0] MACHedS [1,0] MACHedS [1,0]	Assusay				BPEL
·[appraty[1.0]	✓ Services and References				
BPELCOLLATProcess [1:0] BPELCOLLATProcess [2:0]	Name	Type	Usage	Total Messages	Average Processing Time (sec)
BPELCRPCosureProcess [1.0]	S. chert	Web Servce	Service	1	0.000 *
BPELCRPProcess [1.0]	GetReportDetals	3CA Adapter	Reference	1	0.472 #
BPELCRPProcess [18.0]	1 InsertReportDetails	3CA Adapter	Reference	0	0.000
bpekvnprocess (1.0)	5 FCDmsService	Web Service	Reference	0	0.000 _
PELLIPSRee [1,0] Control DISON Transfere [1,0] Control DISON					

• In the em console, click the process for which runtime wsdl is required and click on Test.

• We can obtain the runtime wsdl for the process as shown below in the screen shot.

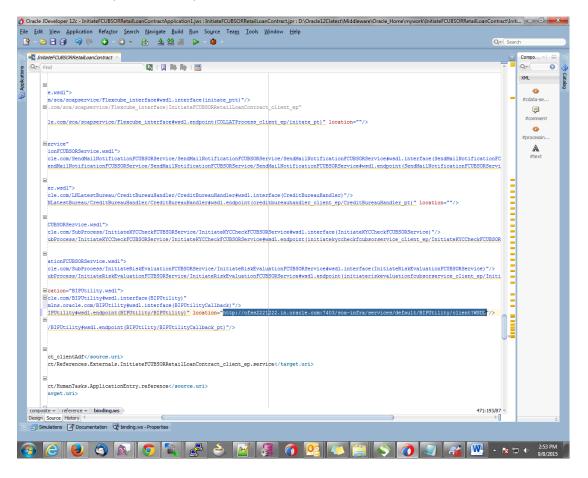


FCUBS Process Flow Deployment

Page 12 of 45



 Now we replace this runtime wsdl in the composite.xml of the process as shown in the screen shot for that particular subprocess.







5. Deployment Profile and Configuration Plan

5.1 Introduction

Oracle Developer 12r - InitiateFCI

A deployment profile is automatically created for all FCUBS Process flows. The application profile includes the JAR files of SOA projects.

The configuration plan enables us to define the URL and property values to use in different environments. During process deployment, the configuration plan is used to search the SOA project for values that must be replaced to adapt the project to the target environment.

5.2 Updating the configuration plan

All the FCUBS process flows has been developed with three configuration plans with the following naming convention for development, testing & production environments. If there are no configuration

plans in any process flow it simply means there are no replacement values that needs to be replaced in the project and that project can be deployed without any config plans.

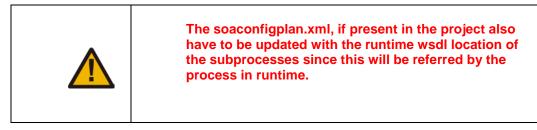
<processflow_name>_cfgplan_dev.xml

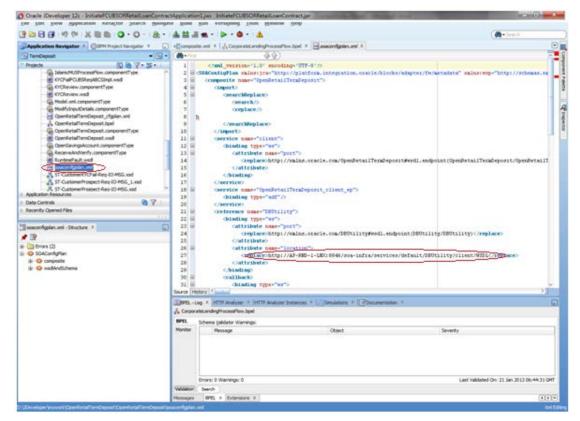
<processflow_name>_cfgplan_testing.xml

<processflow_name>_cfgplan_production.xml

	11991米回日10-0-1号-1金品素-1D-3-1ム		(🚵 • Sharch
per.	ava Import.ChrocessFlow_digelan_testingml Ing_compositeml CopenCurrentAc	count_cfgplan_testing.xml	
	Creatchiceptaces		
	<pre>csearchReplace></pre>		
	<pre>csearch>8888c/search></pre>		
	<replace>8889</replace>		
	<pre><pre>csearchReplace>></pre></pre>		
	<import></import>		
	(searchReplace)		
	<search></search>		
	<replace></replace>		
	<pre><service name="OpenCurrent&ccount_client_ep"></service></pre>		
	dbinding type="adf"/>		
	Add search and replace rules for the component properties</td <td></td> <td></td>		
	For components and service/reference bindings, you can add policy re	ferences.	
	Example:		
	<component "="" name=""></component>		
	Cwsp:FolicyReference crawsp:category="management" crawsp:ste	stus="enabled" URI="oracle/log_policy"/>	
	<pre>creference name="KYCCorporateReview"></pre>		
	dbinding type="ws">		
	<attribute name="port"></attribute>	and a second	
	<pre>creplace>http://xmlns.oracle.com/KYCCorporateReview#wsdl.endpoint(R</pre>	CTCCorporateReview/KTCCorporateReview)	
_	<attribute name="location"></attribute>		
-	<pre><replace>http://sumbpd.iflexsolutions.com:0001/soa-infra/services/d </replace></pre>	lerault/Krttorporatekeview:1.0/dlient/wable/repi	ace>
	(/reference)		
	Creference name="DBUtility">		
	drinding type="wp">		
	<attribute name="port"></attribute>		
	<pre>creplace>http://xmlns.oracle.com/DBUtility#wsdl.endpoint(DBUtility/</pre>	(DRITES 1 S mark) ((ment) acces)	
		bootantoj, companyo	
	<attribute name="location"></attribute>		
	<replace>http://sumbpd.iflexsolutions.com:8001/soa-infra/services/d</replace>	lefault/DBUtility! . 0/client/BSDL/ (replace)	
	Greference name="CRMUtility">		
	drinding type="wo">		
	(attribute name-"port")		
	<pre>creplace>http://xalns.oracle.com/CRUUtility/CRUUtility/CRUUtility#w</pre>	sdl.endpoint(receiveCustomer ep/CRMUtility pt)	/replace>
	<attribute name="location"></attribute>		
	<pre>creplace>http://sunbpd.iflexsolutions.com:8001/soa-infra/services/d</pre>	Sefault/CRMUtility!1.0/receiveCustomer ep/WSDLC/	replace>
ton	4		>
	85Release\111.1\0PEL\ProcessPloves\OpenCurrentAccount\composite.cml	10	ne 1 Column 1 Insert Windows: CR/LF Xni Editiv
			THE AND

In the configuration plan we need to give the latest runtime wsdl location of the subprocesses if present. The runtime wsdl location is obtained as mentioned earlier from the em console.

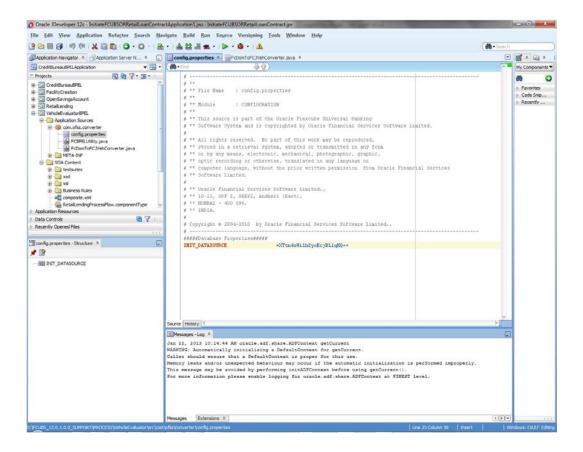




5.3 Updating the Datasource name

The config.properties file, if present in the project of any of the sub processes, has the encrypted datasource name. This should be same as the one given in the fcubs.properties file while building the EAR.







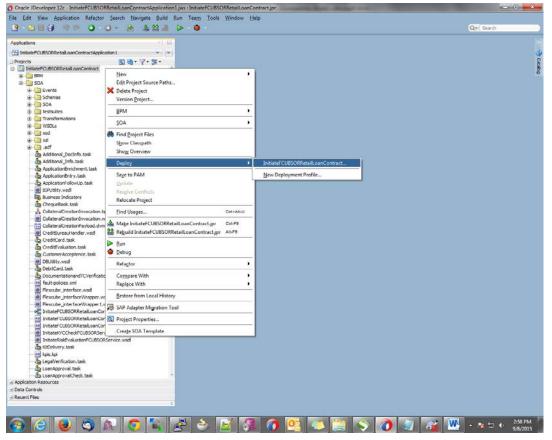
6. Deploying a Single Composite application using JDeveloper

6.1 Introduction

This section describes how to deploy a single SOA composite application with Oracle JDeveloper after completing updating of config plans with respective target environment replacement values.

6.2 **Deploying the Application**

- Right click on the Application that needs to be deployed.
- Select 'Deploy' and then click on the default deployment profile which is the same as the application name.
- This will result in the deployment wizard screen being launched.



• The wizard shows the "Deployment Action" screen .Select 'Deploy to Application server' and click 'Next'



Deploy InitiateFCUBSOR	RetailLoanContract
Deployment Action	
Deployment Action	Select a deployment action from the list below.
Select Server	Deploy to Application Server Generate SAR File
	Deploy this archive to SOA configured Application server(s)
Help	< Back Next > Einish Cancel

- Deployment configuration is done as illustrated in the below screen shot
- Select a Revision with which the deployment should happen
- Select a " Configuration Plan" that was updated as given in Section 5
- Provide a new revision ID. It should be always higher than the earlier revision of the process flow like 1.0, 2.0,3.0 etc
- Check the checkbox "Mark composite revision as "default"
- Uncheck the checkbox "Overwrite any existing composites with the same revision ID"
- Click "Next" to proceed with the deployment.



Deploy InitiateFCUBSOR	RetailLoanContract	X
Deploy Configuration		
Deployment Action	Pla InitiateFCUBSORRetailLoanContract	
Deploy Configuration	Composite Revision ID	_ 1
Select Server	Project: InitiateFCUBSORRetailLoanContract	
o Summary	Current Revision ID: 1.0	
	New Revision ID: 2.0	
	SOA Configuration Plan	-
	InitiateFCUBSORRetailLoanContractTesting_cfgplan.xml	-
	✓ Mark composite revision as default.	
	Overwrite any existing composites with the same revision ID.	
	Keep running instances after redeployment.	
	Use the following SOA configuration plan for all composites:	
()	E	Browse
<u>H</u> elp	< <u>B</u> ack <u>N</u> ext > Einish Ca	ancel

- Select the Application server 'Server Connection' configured that was done in Section 3 to which the deployment needs to be done
- Click 'Next' to proceed with the deployment.

Note :

In case "Overwrite any existing composites with the same revision ID" checkbox is checked during the deployment, the active tasks which are currently running on the current revision of the process flow will be moved to "Stale" task status. The tasks which are in "Stale" status will not be displayed in the FLEXCUBE Application (under Task tab). Make sure that, before deploying the process, the "Overwrite any existing composites with the same revision ID" checkbox should be unchecked.



Deploy InitiateFCUBSOR	RetailLoanContract				X
Select Server					
A Deployment Action	Application Servers:				+ te 🕅
Deploy Configuration	IntegratedWebLogicServer				
Select Server	IUT				
SOA Servers					
O Summary					
	Overwrite modules of the same r	name			
Help		< <u>B</u> ack	<u>N</u> ext >	<u>F</u> inish	Cancel

• Select the Application 'server' to which the deployment needs to be done.

ervers				
Choos	se the target SOA server	(s) and corresponding p	partitions to which you w	ant to deploy this archive.
ployment Action	SOA Server:	Partition:	Status:	Server URL:
ploy Configuration	🚟 soa_server1	default		http://ofss2221222.in
ect Server				
A Servers				
<u>mmary</u>				
elp		< <u>B</u> ack	Next >	Finish Cancel
CIP			INCXL >	Linish Cancer

Page 20 of 45

• View the summary of the deployment details and click 'Finish' to complete the deployment.

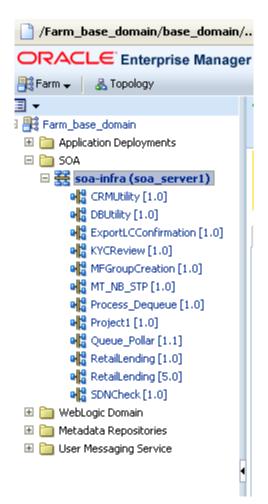
Deploy InitiateFCUBSORR	etailLoanContract
Summary Deployment Action Deploy Configuration Select Server SOA Servers Summary Summary	Deployment Summary:
Help	< <u>B</u> ack <u>N</u> ext > <u>F</u> inish Cancel

• The deployment status can be verified in the deployment status Log window.

Deployment - Log	×ð
Q,	Actions Actions
03:14:15 PM]	Deploying profile
03:14:15 PM]	Updating revision id for the SOA Project 'InitiateFCUBSORRetailLoanContract.jpr' to '1.0'
03:14:15 PM]	Copying file:/D:/Oracle12Clatest/Middleware/Oracle_Home/mywork/InitiateFCUBSORRetailLoanContract/InitiateFCUBSORRetailLoAnContract/InitiateFCUBSORRetailLoAnContract/InitiateFCUBSORRetailLoAnContract/InitiateFCUBSORRetailLoAnContractANCONTRACANCANCANCANCANCANCANCANCANCANCANCANCAN
03:14:15 PM]	Adding soaconfigplan.xml to archive.
03:14:15 PM]	Wrote Archive Module to D:\Oracle12Clatest\Middleware\Oracle_Home\mvwork\InitiateFCUBSORRetailLoanContract\InitiateFCUBSORRetailLoANCONTRACT\InitiateFCUBSORRetailLoANCONTRACT\InitiateFCUBSORRetailLoANCONTRACT\InitiateFCUBSORRetailLoANCONTRACT\InitiateFCUBSORRetailLoANCONTRACT\InitiateFCUBSORRetailLOANCONTRACT\InitiateFCUBSORRetailLOANCONTRACT\InitiateFCUBSORRetailLOANCONTRACT\InitiateFCUBSORRetailLOANCONTRACT\InitiateFCUBSORRetailLOANCONTRACT\InitiateFCUBSORRetailLOANCONTRACT\InitiateFCUBSORRetailLOANCONTRACT\InitiateFCUBSORRetailLOANCONTRACT\InitiateFCUBSORRetailLOANCONTRACT\InitiateFCUBSORRetailLOANCONTRACT\InitiateFCUBSORRETAILOANCONTRACT\InitiateFCUBSORRETAILOANCONTRACT\InitiateFCUBSORRETAILOANCONTRACT\InitiateFCUBSORRETAILOANCONTRACT\InitiateFCUBSORRETAILOANCONTRACT\InitiateFCUBSORRETAILOANCONTRACT\InitiateFCUBSORRETAILOANCONTRACT\InitiANC
03:14:15 PM]	Deploying sca_InitiateFCUBSORRetailLoanContract_rev1.0.jar to partition "default" on server soa_server1 [http://ofss2221222.in.oracle.com:7403]
03:14:15 PM]	Processing sar=/D:/Oracle12Clatest/Middleware/Oracle Home/mywork/InitiateFCUBSORRetailLoanContract/InitiateFCUBSORRetailLoAnCONTRACTA
03:14:15 PM]	Adding sar file - D:\Oracle12Clatest\Middleware\Oracle_Home\mywork\InitiateFCUBSORRetailLoanContract\InitiateFCUBSORRetailLoAnContract\InitiateFCUBSORRetailLoAnContract\InitiateFCUBSORRetailLoAnContract\InitiateFCUBSORRetailLoAnContract\InitiateFCUBSORRetailLoAnContract\InitiateFCUBSORRetailLoAnContract\InitiateFCUBSORRetailLoAnContract\InitiateFCUBSORRetailLoAnContract\InitiateFCUBSOR
03:14:15 PM]	Preparing to send HITP request for deployment
03:14:15 PM]	Creating HTTP connection to host:ofss2221222.in.oracle.com, port:7403
03:14:15 PM]	Sending internal deployment descriptor
03:14:15 PM]	Sending archive - sca_InitiateFCUBSORRetailLoanContract_rev1.0.jar
03:15:55 PM]	Received HTTP response from the server, response code=200
03:15:55 PM]	Successfully deployed archive sca_InitiateFCUBSORRetailLoanContract_rev1.0.jar with 0 warning/severe messages to partition "default" on server soa_server1 [http
03:15:55 PM]	Elapsed time for deployment: 1 minute, 56 seconds
03:15:55 PM]	Deployment finished
(
Aessages 🕹 🖧 B	3PEL × Extensions × SOA × Deployment ×

- The deployed process can be verified by checking if the process is showing up in the SOA Suite enterprise manager console.
- Login to :eports/em">http://enstname>:eports/em
- Expand SOA >soa-infra and view all deployed applications







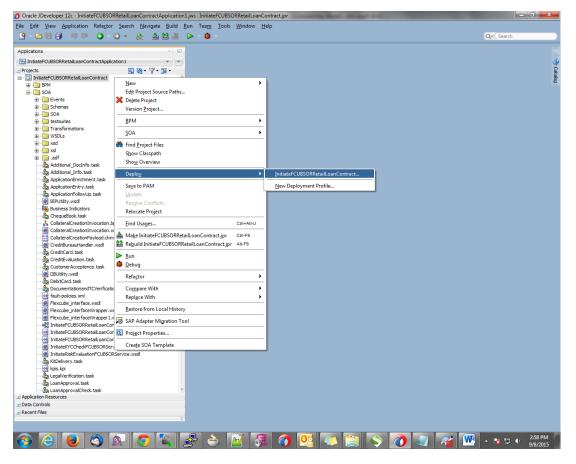
7. Deploying a Single Composite application via Enterprise manager console

7.1 Introduction

This section describes how to build a SAR file for a single SOA composite application with Oracle JDeveloper and deploy the same via enterprise manager console.

7.2 Deploying the Application

- Right click on the Application that needs to be deployed.
- Select 'Deploy' and then click on the default deployment profile which is the same as the application name.
- This will result in the deployment wizard screen being launched.



- In deployment action screen choose 'Deploy to SAR'
- Click 'Next' to proceed with the deployment.

FCUBS Process Flow Deployment

Page 23 of 45

Deploy InitiateFCUBSOR	RetailLoanContract	X
Deployment Action		
Deployment Action Deploy Configuration Summary	Select a deployment action from the list below. Deploy to Application Server Generate SAR File	
	Generate a SAR (.jar extension) file for the selected SOA project.	
Help	< Back Next > Finish	Cancel

- In deployment configuration screen enter the revision
- Select the configuration plan.
- Click "Next" to proceed with the deployment.

Deploy InitiateFCUBSOR	RetailLoanContract	x
Deploy Configuration		
Deployment Action	ଖ୍ୟୁ InitiateFCUBSORRetailLoanContract	
Deploy Configuration	Composite Revision ID	
Summary	Project: InitiateFCUBSORRetailLoanContract	
	Current Revision ID: 1.0	
	New Revision ID: 1.0	
	SOA Configuration Plan	
	🔿 Do not attach	
	InitiateFCUBSORRetailLoanContractTesting_cfgplan.xml	
	Use the following SOA configuration plan for all composites:	
<c>>→</c>		Browse
Help	< <u>B</u> adk <u>N</u> ext > <u>F</u> inish	Cancel

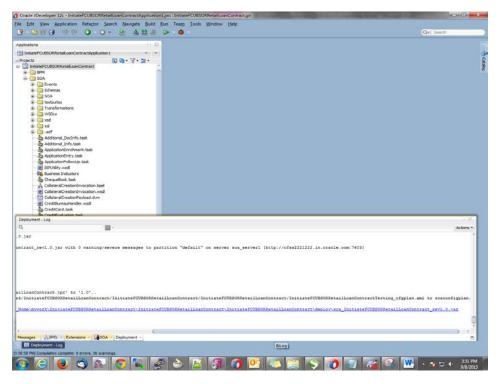
• Review the deployment summary screen



• Click "Finish" to proceed with the deployment.

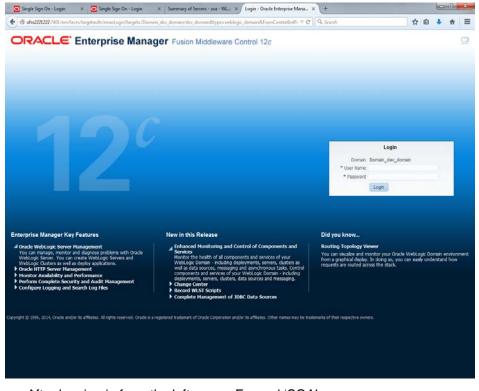
Deploy InitiateFCUBSORI	RetailLoanContract	×
Summary		
Deployment Action Deploy Configuration Summary	Deployment Summary: - JEE Module - Application Name: null - Module Type: ear - SOA Deployment Summary - Global Configuration Plan: none - Archive Location: /D:/Orade12Clatest/Middleware/Orade_Home/mywork/InitiateFCUBSORRetailLoanContract/ - Archive Name: sca_InitiateFCUBSORRetailLoanContract_rev1.0.jar	Initia
Help	< Back Mext > Einish Cancel	

- Review the deployment log
- It shows the folder onto which the SAR file is written.

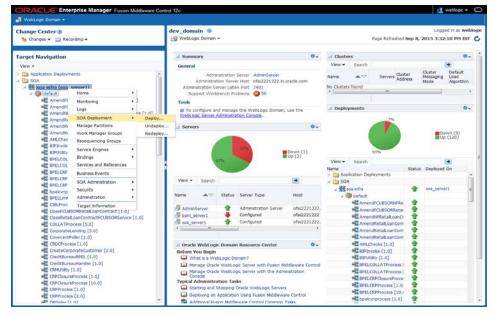




- Login to the enterprise manager console.
- Login to <u>http://<hostname>:<port>/em</u>



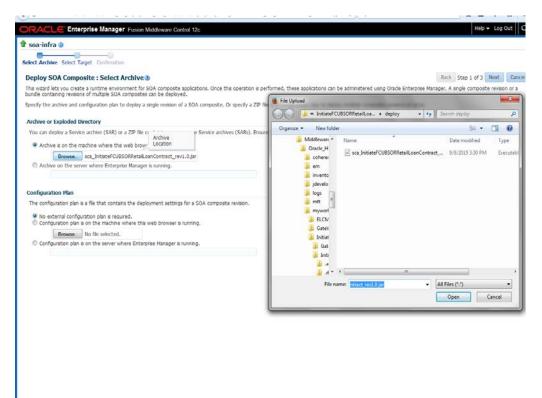
- After logging in from the left pane Expand 'SOA'
- Right click on soa-infra
- Choose SOA Deployment -> and click "Deploy" option.



• Select the 'SAR' archive



 Select the deployment plan with which the application needs to be deployed as illustrated in the screen shot.



Click on 'Next' to proceed with the deployment.

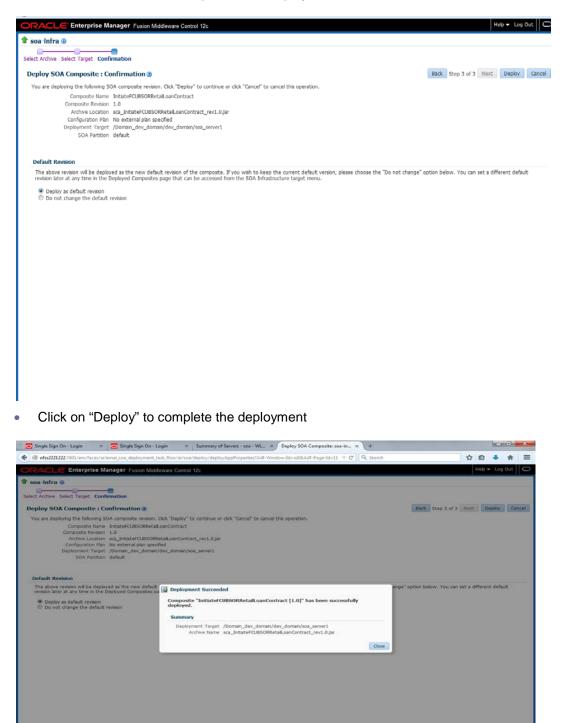
ect Archive Select Target Co	onfirmation	
Deploy SOA Composite :	Select Target 3	Back Step 2 of 3 Next Cano
WebLogic Server or Cluster		
Based on the context from whic navigate to a different WebLogi	ch you bunched this weard, the selected composite will be deployed to the WebLogic server or cluster shown is server or cluster or to the WebLogic Domain, and select Deploy again.	below.If you wish to deploy to a different target, dick Cancel to exit this witar
Deployment Target	: 📕 /Doman_dev_domain/dev_domain/soa_server1	
Type	Oracle WebLogic Server	
SQA Composites Deployed	6d 89	
Token Configurations		
specific URIs when a composite i	te global token variables referenced by this composite before deploying it. Else the composite may not run pro a moved to another environment, Before starting the deployment operation, ensure that all the tokens refer atration section of the SOA infrastructure target menu.	perly, once it is deployed. Global token variables are used to resolve environme inced by the selected composite are configured. The Token Configurations pay
SOA Partition		
SOA Partition Partitions are logical groupings of let below.	f composites that help you manage large deployments. The selected composite will be deployed to the partiti	on shown below. If you wish to deploy to a different partition, select it from th
Partitions are logical groupings of	f compostes that help you manage large deployments. The selected composte will be deployed to the partic	on shown below. If you with to deploy to a different partition, select it from th
Partitions are logical groupings of list below.	f composites that help you manage large deployments. The selected composite will be deployed to the particle	on shown below. If you wish to deploy to a different partition, select it from t
Partitions are logical groupings of list below.	f composites that help you manage large deployments. The selected composite will be deployed to the partite	on shown below. If you wish to deploy to a different partition, select t from t
Partitions are logical groupings of list below.	f composites that heb you manage large deployments. The selected composite will be deployed to the partite	on shown below. If you with to deploy to a different partition, select it from the tensor ${\bf x}$
Partitions are logical groupings of list below.	f composites that heb you manage large deployments. The selected composite will be deployed to the partite	on shown below. If you wish to deploy to a different partition, select it from t
Partitions are logical groupings of list below.	f composites that help you manage large deployments. The selected composite will be deployed to the partits	on shown below. If you wish to deploy to a different partition, select it from t
Partitions are logical groupings of list below.	f composites that help you manage large deployments. The selected composite will be deployed to the partite	on shown below. If you wish to deploy to a different partition, select t from t
Partitions are logical groupings of list below.	f composites that heb you manage large deployments. The selected composite will be deployed to the partite	on shown below. If you wish to deploy to a different partition, select it from t
Partitions are logical groupings of list below.	f composites that heb you manage large deployments. The selected composite will be deployed to the partits	on shown below. If you wish to deploy to a different partton, select it from t
Partitions are logical groupings of list below.	f composites that heb you manage large deployments. The selected composite will be deployed to the partite	on shown below. If you wish to deploy to a different partition, select it from t
Partitions are logical groupings of list below.	f composites that help you manage large deployments. The selected composite will be deployed to the partic	on shown below. If you wish to deploy to a different partition, select it from t
Partitions are logical groupings of list below.	f composites that heb you manage large deployments. The selected composite will be deployed to the partits	on shown below. If you wish to deploy to a different partton, select it from t
Partitions are logical groupings of list below.	f composites that heb you manage large deployments. The selected composite will be deployed to the partite	on shown bebw. If you wish to deploy to a different partition, select it from t

FCUBS Process Flow Deployment

Page 27 of 45



Select the default revision option if this deployment needs to be the default one



FCUBS Process Flow Deployment



🕢 🙆 💽 🚳 🔊 🔽 🖉 🐣 🖂 🗿 🗿 💁 🐃 🐨 🖓 🖓 🖉 🐼

Page 28 of 45

ofss2221222:7401/em/faces/ai/soa/composite?target=%2FDomain_	dev_domain%2Fdev_domain%2Fsoa_server1%2Fdefault%2FInit	iateFCUB: = C	Q. Search		合 🗅 🦊	Ĥ	1
ORACLE Enterprise Manager Fusion Middleware Cont	trol 12c				12 web	ogic •	
WebLogic Domain 👻 🧱 SOA Infrastructure 👻							
arget Navigation	1 InitiateFCUBSORRetailLoanContract	.0] 🕘			ogici 🗒 ofss2221222.		
View 🕶	SOA Composite -			Page Refreshed Se	p 8, 2015 3:41:08 I	M IST	1 (
Appication Deployments SOA SOA Goa_server1) (@ default	Active Retire Shut Down Test Dashboard Composite Definition Plow Instances	Settings • Unit Tests Pole	1. 60-1		P Reb	ted Lir	nks
AmendFCUBSORNFRetail.oanContract [1.0]	⊿ Components						
AmendFCUBSORRetaiLoanContract [1.0]	Name				Component Typ Human Workfor		
AmendRetaiLoanContractFCUBSORService [1.0]	a CreditCard				Human Workflow BPEL	v	C
AmendRetaiLoanContractFCUBSORService (3.0) AMLChecks (1.0) BIPInvoke (1.0)	ChequeBook				Human Workflor BPMN	v	+
BIPUtiky [1.0]	▲ Services and References						
BPELCOLLATProcess [1.0]	Name	Type	Usage	Total Messages	Average Processing	Time (sec)	
BPELCRPClosureProcess [1.0]	ThisteFCUBSORRetail.oanContract_clientAdf	ADF	Service	0		0.000	
BPELCRPProcess [1.0]	S InitiateFCUBSORRetaiLoanContract WebService		Service	0		0.000	
BPELCRPProcess [10.0]	InitiateFCUBSORRetail.oanContract_client_ep	Direct Binding	Service	0		0.000	
bpeicynprocess [1.0]	Colateral Service	Web Service	Reference	0		0.000	
BPELLimtReview [1.0]		tree service	Neierence	v		0.000	
CIBLProcess [1.0]							
CloseFCUBSORRetail.oanContract [1.0]							
CloseRetail.oanContractFCUBSORService [1.0]							
COLLATProcess [5.0]							
CorporateLending [3.0]							
CovenantPoller [1.0]							
CRDCProcess [1.0]							
CreateCorporateCustomer [2.0]							
CredtBureau8PEL [1.0]							
CredtBureauHandler [1.0]							
CRMUtity [1.0]							
CRPClosureProcess [1.0]							
CRPClosureProcess [1.0]							
CRPProcess [1.0]							
CRPProcess [2.0]							
BBPoler [1.0]							
BBUtity [1.0]							
DBUtility (2.0) DisburseFCUBSORRetail.conContract [1.0]							
· · · · · · · · · · · · · · · · · · ·							

• Check the deployed process from the enterprise manager console

/Farm_base_domain/base_domain/		
📑 Farm 🚽 🛛 🚓 Topology		
∃ -		
🛿 📴 Farm_base_domain		
🗄 🚞 Application Deployments		
🖃 🚞 SOA		
🗆 🚟 soa-infra (soa_server1)		
CRMUtility [1.0]		
BUtility [1.0]		
ExportLCConfirmation [1.0]		
📲 KYCReview [1.0]		
MFGroupCreation [1.0]		
MT_NB_STP [1.0]		
Process_Dequeue [1.0]		
Project1 [1.0]		
Queue_Pollar [1.1]		
RetailLending [1.0]		
RetailLending [5.0]		
SDNCheck [1.0]		
🗄 🚞 WebLogic Domain		
표 🚞 Metadata Repositories		
🗄 🚞 User Messaging Service		
•		



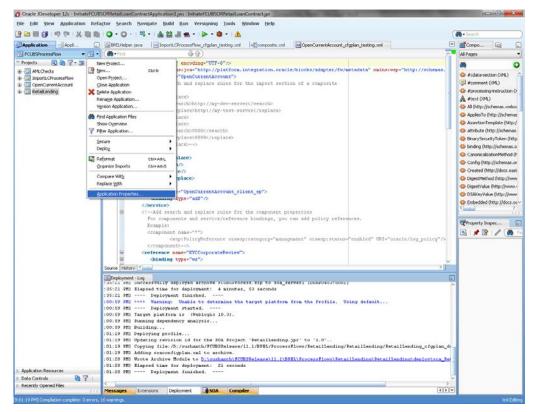
8. Deploying Multiple Composite application using JDeveloper

8.1 Introduction

This section describes how to deploy a multiple SOA composite application with Oracle JDeveloper after completing updating of config plans with respective target environment replacement values.

8.2 Creating the Deployment Profile

• From the application menu select 'Application Properties' as illustrated in the screen shot.



- In the Application Properties dialog, click Deployment.
- Click New.



Ovacle JDeveloper 12c - InitiateFCU8	SCRRetailLoanC	ontractApplication1/ws : Initiat	eFCUBSORRetailLoanContract.jpr	Barr Barry Sol				
le Edit Yiew Application Ref.	actor Search	Savigate Build Bun Ve	ersigning Lools Window Help					
· 2 日日· ·······························	0.0.	15· 423.**	► • ● • ▲				- Skards	
Application Applica	BrELHelper.	.java ImportLOProcessPlov	v_d'gplan_testingml #@compositeml	OpenCurrentAccount_digplan_testin	d out		Comps La	
PCUBSProcessPlow + 🛃 -	dered .	49				1	Al Pages	
Projects 🕲 🗟 🏹 • 🐲 • 🗌		oul version="1.0" encoding						
AMLChedis		and the second	http://platform.integration.oracle/blo	CONTRACTOR OF THE OWNER OF	xains:wsp.*ht	tp://scheses.	G #cdata-section (041)	
Concession		Application Properties	D:\sushanth\/CUBSRelease\11.1\APP\/CU	BSPrecessFlow.jws	8		#content (JPK)	
Retail.ending		(Starth	Deployment				O #processing-instruction	
		Application Contant	O Use Guston Settings		· Settion		A stert (IML)	
		Deployment	Use Application Settings				Al (Mp://schemes.am	
		Resource Bundles	Deployment Pyofiles:		4		ApplesTo (http://scher AssertionTemplate (http://scher	
		WS Policy Store	FCUBSProcess (SOA Bundle)		Edt		o attribute (http://schen	
					biew		O BranSecurityTolen (h	
					Delete		Dindrg (http://scheme	
							Canonicalization/Hetho	
	181						Config (Ntp://ischema	
							Created (http://docs.	
							DigestMethod (http://	
	1.1		Suto Generale and Synchronize weblogic is	bc.xnii Descriptori During Deployme	re.		 DigestValue (http://w DSAkeyValue (http://) 	
			Security Deployment Options Decide whether to overwrite the following so		a 11		Cobedded (http://doi	
			deployed.	concy objects it they were previous	Υ		<	
			Application Policies					
			♥ Qredentiak				CProperty Inspec	
			Decide whether to migrate the following sec Users and groups	PRY IDJUCS.		log policy"/>	🗟) 🗶 🕼 (🖉 (🌢	
	8							
	. 별	1940		OK	Cancel	2		
	Source Hist							
	Ceployment 1+5:44 mits	-Log successfully asployes a	archive scuesysocars.map to soa_server.	IDERADEPILEDOTI		la la		
			ment: 4 minutes, 53 seconds					
		Deployment finish	to determine the target platform from	the Profile. Dates data	ale.			
	:00:59 PH) Deployment started							
	:00:59 PH) Target platform is (Weblogic 10.3). :00:59 PH) Funning dependency analysis							
	100:59 PH Building							
	101:19 981							
			<pre>x the SOA Project 'Pstallending.jpr' sh/FCUBSblease/31.1/EFEL/Process7100</pre>		ding Batalita	ding ofmins d		
	:01:19 983	Adding seaconfigplan.sml	d to archive.					
			D:\susbath\FCUIFELease(11.1\BFELF	oceasFlows\FetailLending	RetailLending	deployisca Fet		
uplication Resources		Hapsed time for deploys						
hata Cantrols 🛛 🗿 🍸	1000	 				1		
	S. Branner		and the second s			- in the		
Lecently Opened Files	Messages	Extensions Deployment	SDA Compiler			4114		

- The Create Deployment Profile dialog appears.
- In the Archive Type list, select SOA Bundle.
- In the Name field, enter a name and click 'OK'.

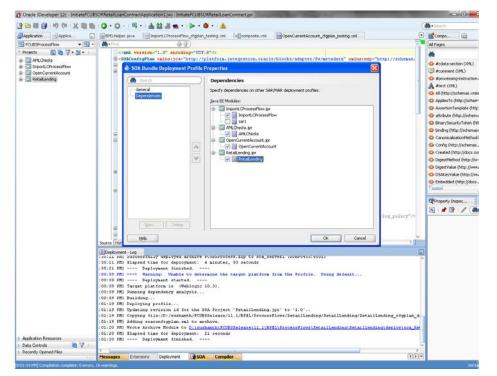
	0.0	- 🍕 - 📤	***	∆ 1 × €			(- Solarda
pplication	BPELHelpe	r.java inp	ortLCProcessFlow_cfgplan	_testing.xml att composite.xml @OpenC	CurrentAccount_cfgplan_testi	lmx.gr		Compo
CUBSProcessPlow + 🔁 -	-Find		응습)				2	Al Pages
ojects a a v. s.	<7	and version-"	1.0" encoding="UTF					46
AMLChecks	E d	OAConfigPlan	xalns:jca-"http://	/platform.integration.oracle/blocks/	/adapter/fw/metadata"	xains:wsp-7	http://schemmas.	120
Importi CProcessFlow	8	Apolication	Properties - D: Vsust	hanth\FCUBSRelease\11.1\APP\FCUBSPr	ocessFlow lws	X		#cdata-section (IML)
OpenCurrentAccount	8		A MARKAN STREAM	www.windestandument/content/futuressario		401	1 1	🐺 #comment (IML)
Retail.ending		(Barth	D	eployment				#processing-instruction
		Application	Create Deploymen	t Brefile		Settings.		A #text (XML)
		Liepioyme				1		All (http://schemas.xi ApplesTo (http://sch
		Resource	Click OK to create your i	new deployment profile and immediately open it to s	see its configuration.			Apples to (http://sch
		WS Policy	Archive Type:			Edt		Asservice (http://sche
		HO FORS	SOA Bundle		-			
			Name:			New		BinarySecurityToken (binding (http://schem)
	8		FCLESProcess			Delete		CanonicalizationMethy
	8							Config (http://schem/
			Description:					
				for deploying multiple SOA Composites/Metadata Ar e file (sip) contains one or more Composite archives				Created (http://docs
			more Metadata Archive		I (SHKs) and/or one or			OigestMethod (http://www.initialian.com/ DigestMethod (http://wwww.initialian.com/ DigestMethod (http://wwww.initialian.com/ DigestMethod (http://wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww
	8					r.		DigestValue (http://v
								DSAKeyValue (http://
								Embedded (http://doi
	8		Help		Cancel			
				Gredentials		•		Property Inspec
				Decide whether to migrate the following security of	wiects.			B # B 1/0
				Users and Groups			log policy"/>	
			1 SI					
	6							
	8	Help	1		OK	Cancel	*	
	Source Hist						× 1	
	Deploymen	nt - Log						
				scuppyrocess.mip to som_serveri int 4 minutes, 50 seconds	3HA0423180011		^	
			ment finished					
	:00:59 PH	>>>> Warnis	ng: Unable to dete	eraine the target platform from the	Profile. Using defr	malt		
			ment started					
			form is (Weblogic indency analysis					
		Building	indency analysis	рс" -				
		Deploying pr	rofile					
				SOA Project 'PetailLending.jpr' to '				
				DSRelease/11.1/BPEL/ProcessFlows/Ret	caillending/Retaillen	ding/RetailL	ending_cfgplan_d	
			onfigplan.xal to an	rchive. shanth\FCUBSPelease\11.1\BPEL\Froces	TATIONAL Paraillending	Detaillandi	and and evolved the	
			for deployment:		A A A A A A A A A A A A A A A A A A A	at some a section	CALIFORNIA COL	
lication Resources			ment finished					
ta Controls 🛛 🖓 🍸							Y	
cently Opened Files								

FCUBS Process Flow Deployment

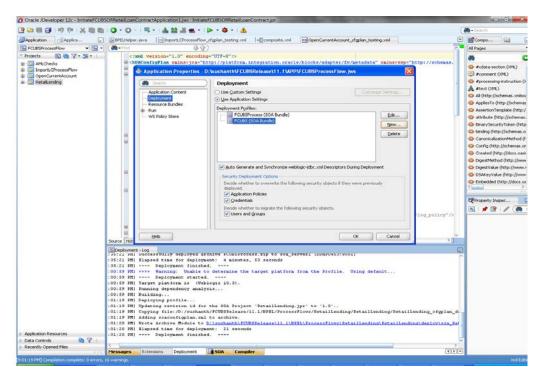


Page 31 of 45

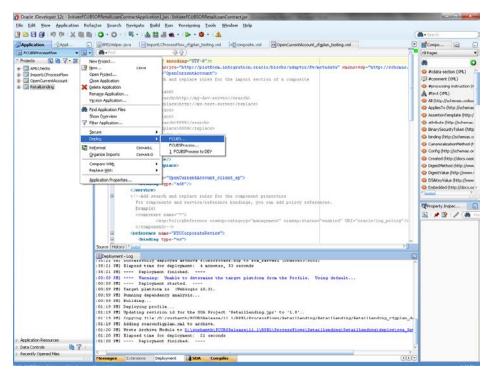
- In the navigator on the left, select the Dependencies node.
- Select the SARs you want to include in this bundle, as illustrated in the screen shot
- Click OK.



Click OK to close the Application Properties dialog.

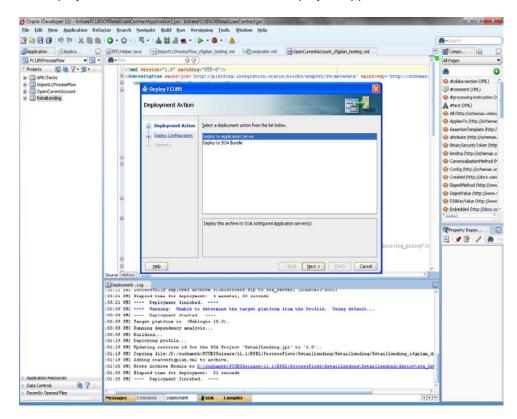






• Select the Application menu again, then select Deploy > SOA_bundle_name

Deployment screen is launched, Select 'Deploy to Application Server'



FCUBS Process Flow Deployment

Page 33 of 45

- Deployment configuration is done as illustrated in the below screen shot for each application which is displayed in the tab, application navigation can be done using the pointer provided at the end of the tab.
- Select a Revision with which the deployment should happen
- Select a " Configuration Plan" that was updated as given in Section 5
- Remember to check both the checkboxes
- "Mark composite revision as 'default"
- "Overwrite any existing composites with the same revision ID"
- After all the applications are configured Click "Next" to proceed with the deployment.

Oracle JDeveloper 12c - InitiateFCUB	SORRetailLoanContractApplication1.jws : InitiateFCUBSORRetailLoanContract.jpr	_ 0 <mark>_X</mark>
Eile Edit View Application Refa	<u>c</u> tor <u>S</u> earch <u>N</u> avigate <u>B</u> uild <u>B</u> un Versigning <u>T</u> ools <u>W</u> indow <u>H</u> elp	
🔮 🗁 🕃 🎒 I 🧐 🗮 I 🗶 🖿 💼	I Q • Q • I = • I ▲ \$\$ # # • I ▶ • \$ • I ▲	🔁 🕶 Search
Application Applica	😸 BPELHelper, Java 🛛 🖄 ImportL CProcessFlow_cfgplan_testing.xml 🖉 OpenCurrentAccount_cfgplan_testing.xml 💌	Compo
🔁 FCUBSProcessFlow 🔹 🔁 🔹	(the Find 4 1)	All Pages
- Projects 💽 🗞 🍸 - 🔤 - 🗌	<pre></pre> (?xml version="1.0" encoding="UTF-6" ?>	# C
⊕ 📴 AMLChecks	SORConfigPlan xmlns:jca="http://platform.integration.oracle/blocks/adapter/fw/metadata" xmlns:wsp="http://schemas.	
ImportLCProcessFlow	B <core black="" of="" t<="" table="" th="" the=""><th>#comment (XML)</th></core>	#comment (XML)
OpenCurrentAccount RetailLending		#processing-instruction (X)
	Deploy Configuration	#text (XML)
		All (http://schemas.xmlsoa
	Deployment Action	🐼 AppliesTo (http://schemas
		AssertionTemplate (http:/
	Deploy Configuration Composite Revision ID SOA Configuration Plan	🚸 attribute (http://schemas.
	Project : Do not attach	BinarySecurityToken (http://www.securityToken.com/pii/securityT
	Summary ImportLCProcessFlow Select a configuration plan from the list.	binding (http://schemas.o
	Current Revision ID : ImportLCProcessFlow_cfgplan_dev.xml	CanonicalizationMethod (F
	1.0 ImportLCProcessFlow_cfgplan_testing.xml	Config (http://schemas.or
	New Revision ID :	Created (http://docs.oasi: DigestMethod (http://www
	1.0	DigestValue (http://www.v
	8	OSAKeyValue (http://www.
		Embedded (http://docs.oa)
		< > >
	✓ Mark composite revision as default.	
	Overwrite any existing composites with the same revision ID.	Property Inspec
	Use the following SOA configuration plan for all composites:	🔜 📌 😰 🥒 (🎒 🗉
	Browse	
	Belp Cancel v	
	Source History	
	Deployment-Log soidi whi successfully deployed archive FlubsProcess.sip to soa serveri (DDHPU455;5001)	
	135:21 Phi Successfully deployed atchive Foundations and to Some Serveri (DDAFONSS: SODI)	
	:35:21 PM1 Deployment finished	
	:00:59 PM] >>>> Warning: Unable to determine the target platform from the Profile. Using default :00:59 PM] Deployment started	
	100:59 PM] Target platform is (Weblogic 10.3).	
	:00:59 PMI Bunning dependency analysis	
	:00:59 PM] Building :01:19 PM] Deploying profile	
	:01:19 PM] Updating revision id for the SOA Project 'RetailLending.jpr' to '1.0'	
	101:19 PMI Copying file:/D:/sushanth/FCUESSelease/ll.l/BPRL/ProcessFlows/RetailLending/RetailLending/RetailLending_file://	
	:01:19 PM] Adding soaconfigplan.xml to archive. :01:20 PM] Wrote Archive Hodule to <u>D:\sushanth\FCUBSRelease\11.1\BPEL\ProcessFlows\RetailLending\RetailLending\deplov\sca_Ret</u>	
	:01:20 PM] Elapsed time for deployment: 21 seconds	
Application Resources	:01:20 PM] Deployment finished	
Data Controls Recently Opened Files		
Cecercity Opened Tiles	Messages Extensions Deployment SOA Compiler	
[9:01:19 PM] Compilation complete: 0 errors	f unvelope	Ved Editio

- Select the Application server 'Server Connection' configured that was done in Section 3 to which the deployment needs to be done
- Click 'Next' to proceed with the deployment.



Source (not interview) Source (not i		0.0.	月- 金盤道義-	• · · · · ·				-Seach
Import	Application Applica	EPELreber.ta	va Importi, OrocessPlov	cfgplan_testing.sml +2	composite.uml	count_clippian_testing.smi		
Import	E FCL85ProcessFlow • E •	(.Fod	89				2	Al Pages
Constructions Con	Projects 🕄 🎯 🍸 · 🖉 ·						The second second second	
Image: State of the state	AM.Cheds SuperSchedule Andersen Andersen Andersen Andersen Andersen Andersen Andersen Andersen	9 9 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Deploy FCUBS	ittp://platform.integ	ation.oracle/blocks/abapte		sp-"http://schemas.	g #processing-instruction
<pre>Control (Control (Contro) (Control</pre>		30.00	Select Server	HP-4X HP-4X IntegratedWebLogicServe ITR1 FCIS	(domain unconfigured)	24		Applien To () étp://jochem AssertionTemplate () http://jochem Sinary/Security/Token () Dinary/Security/Token () Dinary/Security/Token () Dinding () http://jochemas Conversionator/MHttp://
<pre>fours (many (state)) for (many (state</pre>		3					ocie/log_policy*/>	DigestValue (http://www DisAcey/Value (http://www Entended (http://docs
Difference too This is a constrained of the second of the secon			Ente	11.	<gad. yest=""></gad.>	Brish Cancel		
Appleation Resources :01:20 PHI Deployment finished	Application Resources	101:14 201 21 101:15 201 201 201 100:150 201 201 201 100:150 201 201 201 100:150 201 201 201 100:150 201 201 201 100:150 201 201 201 100:150 201 201 201 101:120 201 201 201 101:120 201 201 201 101:120 201 201 201 101:120 201 201 201 101:120 201 201 201 101:120 201 201 201	<pre>accessfully exployed a layerd time for depiny </pre>	<pre>sense: 4 minutes, 60 ed ed ed so determine the targ 5 blogic 10.3). pris r the SOA Project 'Be th/FCUBBaltass/11.1/ 1 to archive. Elizabenth/FCUBBaltass.</pre>	econds t platform from the Profi millending.spr' to '1.0' DFEL/ProcessFlow/Fatmiller	e. Using default ding/Betaillending/Bet	Laurent Commenter	
	Recently Opened Files	Messages	Extensions Deployment	SOA Compiler				

• Select the Application 'server' to which the deployment needs to be done.

		Usion="1.0" encoding	ge"UTF-8">> ttp://platform.integra	mposte.umi Connorsecterours, de	etedete" xalnervep-	Thttp://schease	Compo
CLESProcessflow V 2 - Sects 2 3 7 5 - AMC.Decks 2 Imports.Chrocosoflow 3 OpenCurrentAccount	Conductor	Construction of the second method of the second method of the second method of the second method of the second of	ge"UTF-8">> http://platform.integra Choose the target SOA serv	tion.oracle/blocks/adapter/fw/a	etedete" xalnervep-"	Thttp://scheans.	Converted (http://schemes.org) Comment (0%) Forcessing-instruction All (http://schemes.org) All (http://schemes.org) All (http://schemes.org) Converted Additional (http://scheme
sjects () () () () () () () () () () () () ()	e denti denti 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	IgPlas xalasijca-"ar Deploy FCU85 SOA Servers Costor Configuration Statest Servers SOA Servers	ttp://platform.integra		×	"http://schemas.	Converted (http://schemes.org) Comment (0%) Forcessing-instruction All (http://schemes.org) All (http://schemes.org) All (http://schemes.org) Converted Additional (http://scheme
AMLChecks Imports ChrocessPlaw OpenCurrent Account	e denti denti 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	IgPlas xalasijca-"ar Deploy FCU85 SOA Servers Costor Configuration Statest Servers SOA Servers	ttp://platform.integra		×	Thttp://schemas.	Jodak-section (JHL) Joromerk (JHL) Joromerk (JHL) forcessing-induction from the section of
Dimports.Chrocesefflow OpenCurrentAccount		SOA Servers		er(s) to which you want to deploy this archive			Commert (24L) Commert (24L) Composition of the second of th
	9	SOA Servers		er(s) to which you want to deploy this archive			Processing-instruction Processing-instruction All Otto://jchemas.xx ApplesTo (http://jchemas.xx ApplesTo (http://jchemas.xx ApplesTo (http://jchemas.xx DisplesTo (http://jchemas.xx DisplesTo (http://jchemas.xx CannocialasionMeth Config (http://jchemas.xx Displetethol (http
al Retail and ng	0.0 0.0	Constant Action Constant Contribution Select Server SOA Servers		er(s) to which you want to deploy this archive			Artext (2%) Aplesto (http://schemes.u Applesto (http://sch Applesto (http://sch SassrionTemplate (h attrbute (http://schem binding (http://schem CanonicalzationMeth Config (http://schem Config (http:/schem Config (http://schem Config (http:/schem
	0.0 0.0	Constant Action Constant Contribution Select Server SOA Servers		er(s) to which you want to deploy this archive			Al (http://schemas.x ApplesTo (http://sch AssertionTemplate () attrbute (http://sch binding (http://schem CanonicalizationMeth Config (http://schem Created (http://docs Gigesthethind (http://docs Sigesthethind Sigestheth
	8.8	Select Server SOA Servers		er(s) to which you want to deploy this archive	o.		ApplesTo (http://sch AssertionTemplate () AssertionTemplate () Catholus (http://sch DisnaySecurityTolane Disnding (http://schen Canning (http://schen Can
	8.8	Select Server SOA Servers		a la numer lan uar o adant nu ar or	0.		AssertionTemplate () attribute (http://sche binding (http://sche Canonicalzator/Med Config (http://sche Config (http://sche Config (http://sche Config (http://sche Config (http://sche) Config (http://sche) Config (http://sche)
		SoA Servers	2 Iou_server1				attribute (http://sch bindrg(http://sche binding(http://sche CanonicalizationMet) ConnicalizationMet) Consted (http://schen Crested (http://schen DigestMethod (http://schen
		SOA Servers					BinarySecurityTokan binding (http://schar CanonicalizationMet) Config (http://schar Config (http://schar Created (http://docs DigestMethod (http:
		SOA Servers					binding (http://schere Canonicalization/Hell Config (http://schere Created (http://docs Digest/Hethod (http://docs
							CanonicalizationMeth Config (http://schen Created (http://docs DigestMethod (http:
		e Samary					Config (http://scher
	8						Created (http://doo DigestMethod (http:
	8						😡 DigestMethod (http
	8						
	8						
	8						DSAKeyValue (http://
	8						Enbedded (http://d
	8						< Contraction of the second se
							Property Inspec
							🔁 I 💉 😭 I 🥒 I
					ac:	le/log_policy"/>	
		Help		<back next=""> Fi</back>	inish Cancel		
100	ource History	Post .		Skeel Breek	Control	2	
		and a second					
	Deployment - Log	TETULIY GEDIOVEG AT	CALVE PLUEDFFOCEER. BID	Co BOA METVERI IDDWD0483180017	3.		
			sent: 4 minutes, 53 se				
		Deployment finishe					
		Deployment started		platform from the Profile. Us	ing default		
		t platform is (Web					
		ny dependency analy	P\$18				
	00:59 PH] Build:						
		ying profile		illending. pr' to '1.0'			
				aL/FrocessFlows/RetailLending/R	etailLending/Retail	Lending ofgolan d	
:0	01:19 FH] Adding	g soaconfigpian. ml	to archive.				
				selll.llBPEL\ProcessFlows\Petei	ILending\RetailLend	ingldsploylsca_Pet	
		ed time for deploym Deployment finishe					
Controls	value will sear	paproyment tinishe					1
ently Opened Files			and the second second				

• View the summary of the deployment details and click 'Finish' to complete the deployment.

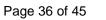


3 🗃 🕄 🔊 🕫 🗶 🗎 🋍	0.0-1	■ 1 ▲ 2 単 1 ● 1 章 1 ▲		💏 • Search
Application Applica	EPELHelper.ja	ImportLCProcessFlow_cfgplan_testing.uml Ingcomposite.uml ImgCopenCurrentAccount_cfgplan_testing.uml		Compo
PCLESProcessFlow - 🔁 -	(de - Find.	4 Q)	0	All Pages
Projects Solution Artichedia Artichedia Solution Artichedia Solution Solution Solution Solution Solution		rersion="1.0" encoding="UTF-0")> if@#Jam xalms:use="http://platform.integration.oracle/blocks/adapter/fu/metedata" xalms:usg="http://sch @ Deploy FCM85	iekas.	# #cdata-section (IPL) #comment (IPL) #processing-instruction (
	0 0 0	Summary Deployment Active Colpus Active Act	eq".0	A first (24) A fil (tito/itchemas.unido A colesi is (trop/itchemas.unido A colesi is (trop/itchemas.unido B astricher (tito/itchemas.unido B attricher (tito/itchema) B bardrag (tito/itchemas) C concel addrag (tito/itchemas)
	Source History	Help Cancel	>	
> Application Resources	Coppoyner, -1 -35:21 PH) = -35:21 PH) = -35:21 PH) = -00:59 PH) - -00:59 PH) - -00:59 PH) - -00:59 PH) - -00:59 PH) P -01:19 PH) P -01:19 PH) P -01:19 PH) P -01:19 PH) P -01:10 PH) C -01:10 PH) P -01:10 PH) P -01:10 PH) PH	earForstry approve aronnye runnyyeetsi tug te sagarayar (nunnyes)tugur peed take for deployment 1 4 kuntus, 53 seconds - Deployment finished Y Marning: Unable to determine the target platform from the Profile. Using default - Deployment started yet platform is (Veblogic 10.3). hing dependency amalytis		

• If the server prompts for username / password provide the credentials for the server.

	O · O · I □ · I ▲ ≌ 볼 ★ · I ▷ · O · I ▲	(de - Search
Application Applica	BPEUHeper, Java Import.CProcessFlow_cfgolan_testing.xml Infcomposite.xml ImportCurrentAccount_cfgolan_testing.xml	Compo 🙆
R PCUBSProcessPlow	(() +Find	All Pages
 Projecti (2) (2) (2) (2) (2) (2) (2) (2) (2) (2)	Const. version*1.of* encoding=*/077-*72 Const. version*1.of* encoding=*/077-*72 Application Properties _ D/turnsharithVCUISRelease11.1.1UPPI/CUISProcessFlow_jws Rem Performance of application formation Performance of application formation Regione Application file Polyment File Polym	Adda-section (PR. Adda-section (PR. Aconsmit (PR.) Aconsmit (PR.) Aconsmit (PR.) Aconsmit (PR.) Additional aconsmit (PR.) Additionaconsmit (PR.) Addi
	Source Hild Dia Concel	
) Application Resources) Data Cachodis 👰 🏆 [- Research Company Res	Despinent tog (05:53:44 PR) Exploring ZCRE.sky to se_mervel (1800453:001) (05:54:44 PR) Exploring ZCRE.sky to se_mervel (1800453:001) (05:54:44 PR) Exploring ZCRE.sky to se_mervel (1800453:001) (05:54:44 PR) Exploring at 14:5- Diversity Annual (1800453:001) (05:54:44 PR) Exploring at 14:5- Diversity Annual (1800453:001) (05:54:44 PR) Adding at 14:1- Diversity Annual (1800453:001) (05:54:44 PR) Adding at 1:1- Diversity Annual (18005) (05:54:44 PR) Eventing to send HTFP request for deployment (05:54:44 PR) Eventing to cond HTFP request for deployment (05:54:44 PR) Eventing archive - sc_m_Evention(10005) (05:54:44 PR) Eventing archive - sc_m_Evention(10005) (05:54:44 P	

• The deployment status can be verified in the deployment status Log window.





B B B B B B V B B							
	0.0.4	1 · (A 22 - A · (> · O · (A)			0	di-Seath	
Application	EPELHeber.tava	Import. ChocesePlow_digitan_testing.uni	accomposite.uni	CpenCurrentAccount_chiplan_testing.vol		Compo	6
POLESProcessFlow	do-red	49)	192			All Pages	
Projects I I I V . S	crank v	version-"1.0" encoding-"UTF-8" >>					
heeds Q & Y - S - At Code begot ChocesPlay OppoCarefore		mpestic mase-"OpenDistretications."> 	the import mettin convention metoreplaces metoreplaces the component pr e bindings, you contequery-manage	IPEEIAA		solata-sete solata-setee solata-seteee solata-setee solata-seteee solata-setee solata-setee solata-setee solata-setee solata-setee solata-setee solata-seteeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeee	PAL) instruction D tp://schemae. golate (http:// pr/Indremae. yToken (http: //schemae.or i/ficker.mae.or i/fi/
	8	chiming type="up">			4		
	Source History	and a			>8		
C	[09:53:40 PR1 J [09:53:40 PR1 J [09:53:40 PR1 J [109:53:40 PR1 J [109:57:50 PR1 J [109:57:50 PR1 J	too while a relative privative approximately privately approximately a	nr_1273601480366 nr_1273601420366 ployment O4S2, port:8001 x U.jar Flow_rev1.0.jar ev1.0.jar t, response code bj to som_server	<pre>statistic for a statistic statistic statistics and statistic statistics and statistical statistics and statistics and</pre>	Deployment me	onger)	

- The deployed process can be verified by checking if the process is showing up in the SOA Suite enterprise manager console.
- Login to :eport>/em">http://ehostname>:eport>/em
- Expand SOA >soa-infra and view all deployed applications

/Farm_base_domain/base_domain/.
ORACLE Enterprise Manager
🚉 Farm 🗸 🛛 🏯 Topology
∃ -
🛛 📲 Farm_base_domain
🗄 🚞 Application Deployments
🖃 🚞 SOA
🗆 🚟 soa-infra (soa_server1)
CRMUtility [1.0]
DBUtility [1.0]
ExportLCConfirmation [1.0]
KYCReview [1.0]
MFGroupCreation [1.0]
MT_NB_STP [1.0]
Process_Dequeue [1.0]
Project1 [1.0]
Queue_Pollar [1.1]
RetailLending [1.0]
RetailLending [5.0]
SDNCheck [1.0]
🗄 🚞 WebLogic Domain
표 🚞 Metadata Repositories
🗄 🛅 User Messaging Service
•



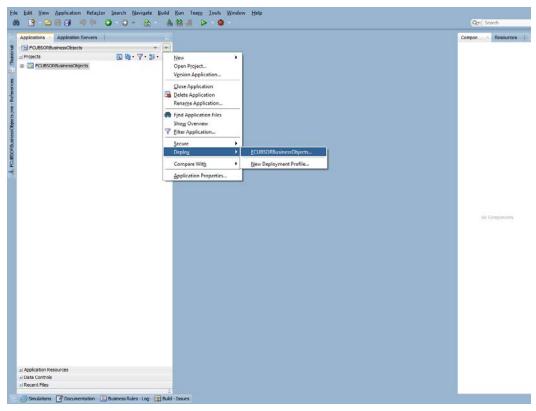
9. Deploying MDS application using JDeveloper

9.1 Introduction

This section describes how to deploy a MDS application with Oracle JDeveloper with respective target environment.

9.2 **Deploying the Application**

- Load the MDS Application(FCUBSORBusinessObjects,FCUBSORServiceObjects) in Jdeveloper
- Right click on the "Application" tab in the Jdeveloper
- Select 'Deploy' and then click on the default deployment profile which is the same as the application name.
- This will result in the deployment wizard screen being launched.



- In deployment action screen choose Deploy to Application Server.
- Click Next→Next to proceed with deployment.
- Select the Application Server to which the MDS Application Needs to Deploy.



Page 38 of 45

Applications - Application Servers	and the second se		Compon = Resources
			Compon Resources in
Call PCUBGORDUSINESSUDJects	· · · · ·		
Projects	0.00-7-55-		
C FOUSORBuenes/Objects	Deploy FCUBSORBusine Select Server Deployment Action Reality Configuration Sold Server Sold Server Cambridge Below	ss00bjects	No Composents
Application Resources			
Data Controls Recent Files			

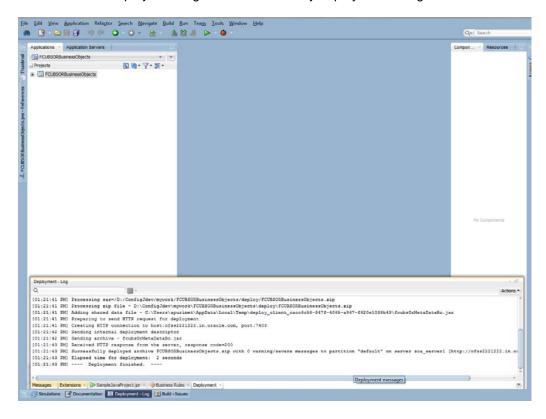
• Click Next and Finish buttons on the deployment wizard after selecting application server.

ppications · Application Servers						0	Resources
PCU8SORBusinessObjects	and and						
Projects 🔊 🕲	• 7•2•						
PCUBSORBusinessObjects							
	Deploy ICUBORBusin SOA Servers Codeversit Actus Codeversit Actus SoA Servers SoA Servers SoA Servers	esrObjects Choose the target SOA ser artifice SOA Server: I SoA Server: I SoA server:	ver(s) and correspond PartStan: defsuit	ndrg partitions to who Status Transform	dr you want to deploy the Server URL: http://ofw2221222		ta Cinoséeda
	340		< Bock	Next > 5	sh Cance	ļ	
Application Resources Data Controls							
Recent Files							



Applications Application Servers EQ.RSORBusinessObjects	* *	Compon · Resources
	Copiloy FCUBSOBBusinessObjects	Ni Compositio
al Application Resources a) Data Controls a) Record Files a) Simulators (P) Documentation (1) Business Rull	Ordenvite modules: Yes Despity to dare verifications: No Shared Library : No jelo < God: Orici > Origh Cancel	

• Review the deployment log to see successfully deployed message as below



FCUBS Process Flow Deployment



Page 40 of 45

10. Deployment and configuration of Oracle BAM Reports

1) Copy the BAM Dashboards Units (.Zip) from /SOFT/MAIN/OR/Process_infra/Reports/BAM to server location.

Contraction of the second s						-
e Edit View Tools Help	New folder					
Inganize • Biz Open • Burn					··· •	1 9
Favorites	Narre	Date modified	Type	Sice		
E Desktop	G DifferentStagesOftheUser.op	7/10/2015 12:39 PM	2p Archive	97.00		
Downloads	C ExposureDashBoard.zip	7/10/2015 12:39 PM	zip Archive	146 KB		
St Recent Places	🕼 EsposureReport.zip	7/10/2015 12:30 PM	zip Archive	45 KB		
WebCenter Content Servers	FacilityReport.zip	7/10/2015 12:39 PM	zip Archive	49 KB		
Construction of the second sec	FlowOfTheParticularTask.zip	7/10/2015 12:39 PM	zig Archive	51 KB		
Desktop	G ListOfCompletedTasks.zip	7/10/2015 12:39 PM	zip Archive	51 KB		
😂 Libraries	G ListOfUsers.zip	7/10/2015 12:39 PM	zip Archive	31.00		
1 Documents	ProcessClassification.zip	7/10/2015 12:39 PM	zip Archive	52 KII		
Music	ProcessOfUsers.zip	7/10/2015 12:39 PM	zip Archive	95 KB		
Pictures	StateCountOfSpecifcUseraip	7/10/2015 12:39 PM	sig Archive	290 KB		
G Subversion	C TaskBasedUserList.rip	7/10/2015 12:39 PM	rip Archive	51 KB		
Videos	TimeTaken.zip	7/10/2015 12:39 PM	zip Archive	199 KB		
A apurimet	TimeTakenByTheUser.zip	7/10/2015 12:39 PM	zip Archive	188 KB		
Computer	TimeTakenForEachInstance.zip	7/10/2015 12:39 PM	zip Archive	126 KB		
System (C:)	UserSpecificDetails.zip	7/10/2015 12:39 PM	zip Archive	124 KB		
Deta (D:)	G Utilisations.zip	7/10/2015 12:39 PM		39.65		
11gR1_client	unanon-zp	1/10/2013 12:39 PM	The section	39 60		
11pR1_client_1						
12.0.3						
Amendment						
AmendRetail.oanContract						
apache-mayen-3,2,5-bin						
app						
AssetDetails						
A BAM						
S DashBoard						
🗼 Sample						
BPELCRPProcess						
S BPMN						
🌲 BugFix						
🍶 CalForm						
LantRecovery						
ChangesToOrdrictm_loan_tai						
🗼 client						
CioseRetailLoanContractFCUI						
🍰 Codes						
ConfigIdev						
CreditCardCaliform						
Z DifferentStagesOftheUser.zip zip Archive	p Date modified: 7/10/2015 12:39 PM Di Size: 95.3 KB	te createsti 7/10/2015 12:40 i	РМ			

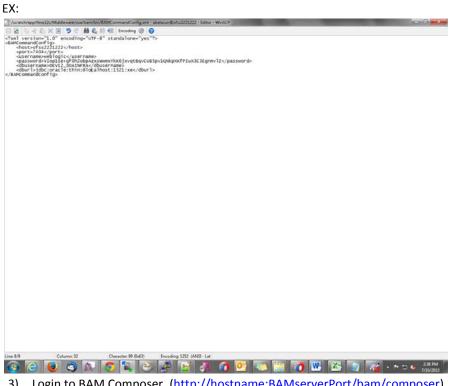
	Do Goene	- Trans	ler Settings Default 🔹 💋 -				
abalasun@10.184.135.218 🚅 New Session							
👔 My documents 🔹 🚰 🕎 🛛 👳 📼 📼	I I I I	2 %	🔰 Sample 🔹 😁 😨 🖛 • 🛶 • 🔯 🕼 🏠	Find Files 😪			
Contrast (1) Of Ede X of Dy Presenter	P 16 18	H = P	1 1 Countrat 1 1 1 1 tot X of Co Property 1				
Ausen/aponmet/Documents	and some little		/scratch/app/Sample				
Varne Ext		Type *	Name Ext		Changed		
	2426			3/28		Rights	Owner fmw12c
		Paren		The sector	7/10/2015 12:54:46 PM	exectives and	
LEOML		Filefc	Utilisations.zip		7/10/2015 12:39:26 PM	LM-LL	abalasun
sqL		Filefc	UserSpecificDetails.zip	123 Kill	7/10/2015 12:39:26 PM	1M-11	abalasun
SPC		Filefc	TimeTakenForEachInstance.zip	126 Kiß	7/10/2015 12:39:26 PM	646-66	abalasun
SAMPLE_ORGATEWAY_REQUESTS_XMLS		Filefc	TimeTakenByTheUser.zip	187 KB	7/10/2015 12:39:25 PM	641-66	abalasun
Remote Assistance Logs		Filefc	TimeTaken.zip	199 KiB	7/10/2015 12:39:25 PM	tw-tt	abalasun
RADXML		Filefc	TaskBasedUserList.zip	52,133 B	7/10/2015 12:39:24 PM	\$10-55	abalasun
Process		Filefc	General StateCountOfSpecifcUser.zip	280 K/B	7/10/2015 12-39-24 PM	****	abalasun
Outlook Files		Filefc	ProcessOfUsers.zip	97,032 8	7/10/2015 12:39:24 PM	111-11	abalasun
Oracle /Developer 12c		Filefc	ProcessClassification.zip	53,037 8	7/10/2015 12:39:23 PM	241-22-+	abalasun
🗎 My Videos		Filefi	ListOfUsers.zip	31,613 8	7/10/2015 12:39-23 PM	Fm-11	abalasun
My Pictures		Filefo	ListOfCompletedTasks.zip	51,542 B	7/10/2015 12:39:22 PM	LM-LL	abalasun
hty Music		Filefi	G FlowOfTheParticularTask.zip	52,084 B	7/10/2015 12:39:21 PM	fm-ff	abalasun
in logs		Filefc	G FacilityReport.zip	49,850 B	7/10/2015 12:39:21 PM	*****	abalasun
LBLXML		Filefc	C ExposureReport.zip	45,531 B	7/10/2015 12-39-20 PM	PW-PF-+	abalasun
KYCReview		Filefc	C ExposureDashBoard.zip	145 Kill	7/10/2015 12:39:19 PM	PM-11	abalasun
5		Filefc	C DifferentStagesOftheUser.zip	96,680 8	7/30/2015 12:39:19 PM	EM-11	abalasun
AVA .		Filefc					
ARS .		Filefc					
INC .		Filefc					
dataobject		Filefc					
CreditCardCaliform		Filefc					
CreditBureau		Filefc					
L DPUblicy		Filefc					
B5perver		Filefc					
161 server		Filefc					
12.11Q46_11_15		File fc					
fmw_121.3.0.0_bpmqs_Disk1_1of1.zip	3,228 MiB	zip Ar					
Oracle /Developer 12c.zip	1,883 MB	zip Ar					
₩ AAVA.zip	156 MB	zip.Ar					
Setting_up_Plugins .doc	13,821 KSB	Micre					
2 RPU6liky.zip	13,013 KiB	zip Ar					
IMS Queue for CRMUTILITY Process and ORG		Micro					
TDD_FCUBS_121_OR_Corporate_Loan_Life_Cy	5,213 KiB	Micro					
RetailLoanDisbursementProcess (2).bmp	2,482 K/B	Bitme					
FDD_FCUBS_12.1.0.0.0_OR_Retail_Loan_Creati	2,213 K/B	Micro					
121_ITF1_Plan_29Jul.slox	2,120 KiB	Micro					
MARS.zip	1,670 KB	zip Ar					
8 of 5.325 Mi8 in 0 of 99			0 8 of 1.617 KiB in 0 of 16				

FCUBS Process Flow Deployment



Page 41 of 45

2) Configure the BAM server location ,port username and password in BAMCommandConfig.xml. It is available in MIDDLEWARE_HOME\soa\bam\bin\BAMCommandConfig.xml



- 3) Login to BAM Composer. (http://hostname:BAMserverPort/bam/composer).
- 4) Go the Designer Page.

ORACLE' BAM Composer	Home Administrator Designer	Preferences Help + admin +
Process Analytics (2)	Dashboard or Alert	Data
,	Dashboards and Alerts Dashboards are composed of one or more views Create one Alerts are notifications based on vgss, Queries, or Pattern Matches	
	Create one	
14mm/1/11184/155/318/3101/0-pan/220000446/14/01/0-pan/		
Click on create.		



FCUBS Process Flow Deployment

Page 42 of 45

B		
	Dashboard or Alert	Model Data
	What do you want to cr	reate?
	Dashboards and Alerts	
8	Alerts are notifications based on KPBs, Queries, or Pattern Create one	Matches
	2	What do you want to cr Dashboards and Alerts Dashboards are composed of one or more views Crute one Alerts are notifications based on 1956, Queries, or Pettern

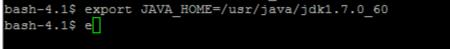
6) Enter the Name and Display Name as FCUBS_BAM_Report and click on create

ORACLE' BAM Composer	Home Administrator Designer	Preferences Holp + admin + O
Creacles' BAM Composer	Dashboard or Aler Dashboards and Alerts Trate Trate	Preferences 100 • adress · O
	Create BAM Project *Imme Collis CAM Remon *Description Costs BPH Dample Costs Cancel N Hatches	
http://10.184.315.218-7101/kam/composer/faces/designer/		



Data Objects Data Objects Data Dobjects Avite Avite Data Dobjects Avite Data Dobjects Avite Data Dobjects Avite Data Dobjects Avite Parameters	Dashboard or Alert	el Data				
	What do you want to create?	?				
	Dashboards and Alerts					
	Create one Create one Alerts are notifications based on KPEs, Queries, or Pattern Matches Create one					

7)



8) Execute the Below BAM Command to import the Dash Board in to the server. ./bamcommand -cmd import -mode overwrite -name "FCUBS_BAM_Report/DifferentStagesOftheUser" -type dashboard -file "/scratch/app/Sample/DifferentStagesOftheUser.zip" from the below path MIDDLEWARE_HOME\soa\bam\bin.





FCUBS Process Flow Deployment [October] [2015] Version 12.1.0.0.0

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/

Copyright © [2007], [2015], 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.