Oracle® Banking Party Management

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Contents

F	Preface	17
	Audience	.17
	Documentation Accessibility	. 17
	Organization of the Guide	. 17
	Related Documents	. 18
	Conventions	19
1	Users Administration	. 21
	1.1 Creating Users in Oracle Identity Manager (OIM)	. 21
	1.2 Creating Roles in Oracle Identity Manager (OIM)	. 25
	1.3 Assigning Roles to Users in OIM	. 29
	1.4 Locking Users in OIM	.33
	1.5 Unlocking Users in OIM	.35
	1.6 Resetting User Password in OIM	.36
	1.7 User Management Using the Admin Application	.40
	1.8 Unlocking Users in Oracle WebLogic Server (OWS) Administration Console	. 47
	1.9 Creation of first time user to access OBPM	.52
2	Approvals Management	. 57
	2.1 Enabling Worklist Authorization	57
3	Defining Task Configuration Rules	. 63
	3.1 Important Rule Artifacts	. 63
	3.1.1 Rules Dictionary	. 63
	3.1.2 Decision Function	.64
	3.1.3 Rulesets	. 65
	3.2 Inputs to Decision Function	65

3.2.1 Custom Input Attributes	66
3.3 Output from Decision Function	67
3.3.1 List of Configurable Attributes in Rule Outcome	68
3.3.2 List of Functions to Set Rule Outcome	70
4 Data Management	75
4.1 Batch Execution	75
4.1.1 Database Backup	75
4.1.2 Navigate to End of Day Page	
4.1.3 Cutoff Category Execution	
4.1.4 End of Day (EOD) Category Execution	
4.1.5 Internal System EOD Category Execution	80
4.1.6 Beginning of Day (BOD) Category Execution	
4.1.7 Housekeeping Category Execution	85
4.1.8 Alert Generation Category Execution	87
4.2 Batch Exception Recovery	
5 Setting Up The Bank And Branch	93
5.1 Common Services Day 0 Setup	
5.1.1 Core Maintenances	93
5.1.1.1 Head Office Setup	
5.1.2 Currency Maintenances	94
5.1.3 Calendar Maintenances	94
5.2 Other Setups	
6 Application Monitoring Using Administration Application	
6.1 Dynamic Monitoring Service (DMS)	97
6.1.1 Usage	
6.1.2 Monitoring Application using the OPA001 page	

6.1.2.1 Monitoring Application Performance (Fast path: OPA001)	
6.1.2.1.1 Application Performance Summary	
6.1.2.1.2 Log Level	
6.1.2.1.3 Application Performance	
6.2 Batch Performance Monitoring	104
6.2.1 Use Cases	104
6.2.2 Monitoring Batch Performance Using OPA003 page	
6.2.2.1 Monitor Batch Performance (Fast path: OPA003)	106
6.2.3 Histogram of Shell Attribute Comparison	115
6.3 ODI Batch Handoff Monitoring	115
7 Application Monitoring Using EM Plugin	119
7.1 Monitoring Application Using EM Plugin	119
7.1.1 Oracle Enterprise Manager (EM)	119
7.1.2 UI	
7.1.3 Host	122
7.1.4 SOA	124
7.1.5 Security Stack (OID and OAM)	124
7.1.6 Document Generation Outbound Components (Documaker, BIP, IF	PM)125
7.1.7 ATM and POS (Point Of Sales) Channels	126
7.1.8 Outbound OFSAA call	126
7.1.9 Monitoring Views	126
7.1.9.1 Batch Monitoring	
7.1.9.2 Application Monitoring	129
7.1.9.2.1 Application Services	
7.1.9.2.2 User Interface	131

7.1.9.2.4 Integration	135
8 Configuration Export-Import Operations	
8.1 Objective	139
8.2 Export	
8.3 Import	139
8.4 Export All	139
8.5 Import All	141
8.6 Config Compare	142
8.7 Data Store Configuration	
8.7.1 DB Data Store	143
8.7.2 File Data Store	143
8.7.2.1 Configuration for Export	
8.7.2.2 Configuration for Import	144
8.8 How to Export Records	144
8.8.1 Exporting Single Record	
8.8.2 Exporting All Records	151
8.9 How to Import Records	154
8.9.1 Importing Single Record	154
8.9.1.1 Using API Client	
8.9.2 Importing All Records	156
8.10 Configuration Comparison	
8.10.1 Compare Business Configuration (Fast Path: OPA005)	158
8.10.2 Usage	159
8.11 Application Configuration	161
8.11.1 Cache Configuration	161
9 Batch Shells in OBPM	

9.1 Batch Shells Description	163
9.2 Batch Shells Execution Sequence	
10 Information Lifecycle Management (ILM)	169
10.1 Configuration	169
10.2 Installation	169
10.2.1 Prepare Scripts	169
10.2.2 Create Tablespace	170
10.2.3 Create Partition Script	170
10.2.4 Run Partition Script	173
10.2.5 Create and Register ADO Policies based on Lifecycle Pattern	173
10.2.6 Verify Registered ADO Policies	174
10.3 Policy Execution	
11 Transparent Data Encryption (TDE)	175
11.1 Configuration	175
11.2 Installation	175
11.2.1 Prepare Scripts to Encrypt Sensitive Data	176
11.2.2 Create TDE Keystore	
11.2.3 Edit sqlnet.ora file	177
11.2.4 Run Created Alter Script	177
12 Masking Customer Private Data	179
12.1 Configuration	179
12.2 Installation	180
12.2.1 Prepare Scripts to Encrypt Sensitive Data	
12.2.2 Create Schema for RO and ERO User	
12.2.3 Execute Created Scripts through Encryption Tool	181

14 Additional Recommendations	
14.1 SOA Related	
14.1.1 Enable Auto Purge Job	
14.1.2 Enable Lazy Loading	
14.2 BPM Worklist Related	
14.2.1 Disable Claim Action from Task Details Page	
14.2.2 Always Open Human Task Details in External Window	

List of Figures

Figure 1–1 Creating Users in OIM - Log in	21
Figure 1–2 Creating Users in OIM - Manage Section	22
Figure 1–3 Creating Users in OIM - Click Create	23
Figure 1–4 Creating Users in OIM - Enter User Details	24
Figure 1–5 Enter User Details (Continued)	25
Figure 1–6 Creating Roles in OIM - Manage Section	26
Figure 1–7 Creating Roles in OIM - Click Create	27
Figure 1–8 Creating Roles in OIM - Enter Role Details	28
Figure 1–9 Creating Roles in OIM - Role Created Successfully	29
Figure 1–10 Assigning Roles in OIM - Requesting Roles	
Figure 1–11 Assigning Roles in OIM - Adding to Cart	31
Figure 1–12 Assigning Roles in OIM - Checkout Cart	32
Figure 1–13 Assigning Roles in OIM - Submit Cart	
Figure 1–14 Locking Users in OIM	34
Figure 1–15 User Locked Successfully	
Figure 1–16 Unlocking Users in OIM	
Figure 1–17 Resetting User Password in OIM	37
Figure 1–18 Resetting User Password in OIM - Manually or Auto-generate	
Figure 1–19 Resetting User Password in OIM - New Password	
Figure 1–20 Password Reset Successfully	40
Figure 1–21 Adding a User	41
Figure 1–22 Enter Mandatory Details	42
Figure 1–23 Applying Changes	43
Figure 1–24 Adding User to a Group	

Figure 1–25 Available and Assigned Roles	45
Figure 1–26 Adding User to Assigned Roles Table	46
Figure 1–27 Save Changes	47
Figure 1–28 OWS Log in	48
Figure 1–29 base_domain	49
Figure 1–30 Security tab	50
Figure 1–31 Unlock User	51
Figure 1–32 User Successfully Unlocked	52
Figure 1–33 Log in Oracle Fusion Middleware Control	53
Figure 1–34 Click Application Roles	54
Figure 1–35 Select Administrators Role	54
Figure 1–36 Add Principal	55
Figure 2–1 Select the Service to be Configured	57
Figure 2–2 Search for Service using TASK CODE + Search text (in case of no gination)	on Ori- 58
Figure 2–3 Approval Checks tab - Add Approval Checks	
Figure 2–4 Add New Severity	59
Figure 2–5 Save Severity Details	60
Figure 2–6 Contact page of Single Party View	61
Figure 2–7 Update details and submit	61
Figure 2–8 Approve transaction in BPM Worklist	62
Figure 2–9 Updated Details Approved	62
Figure 3–1 SOA Composer - Open Rules Dictionary Browser	63
Figure 3–2 SOA Composer – Selecting Rules Dictionary	64
Figure 3–3 SOA Composer – Selecting Decision Function	64
Figure 3–4 SOA Composer - Adding Rulesets to Decision Function	65
Figure 3–5 SOA Composer - Viewing a ruleset	

Figure 3–6 SOA Composer - Viewing inputs to a Decision Function	66
Figure 3–7 SOA Composer – Example Usage of Custom Attributes	67
Figure 3–8 SOA Composer – Viewing Output of a Decision Function	67
Figure 3–9 SOA Composer – Example for adding Stage Participant	69
Figure 3–10 SOA Composer – Example usage of custom attributes	70
Figure 4–1 End of Day (Fast path:EOD10)	76
Figure 4–2 Cutoff Category - Not Started	77
Figure 4–3 Cutoff Category - Start	77
Figure 4–4 Cutoff Category - Complete	
Figure 4–5 EOD Category - Not Started	79
Figure 4–6 EOD Category - Start	79
Figure 4–7 EOD Category - In Progress	
Figure 4–8 EOD Category - Complete	80
Figure 4–9 Internal System EOD Category - Not Started	81
Figure 4–10 Internal System EOD Category - Start	82
Figure 4–11 Internal System EOD Category - In Progress	82
Figure 4–12 Internal System EOD Category - Complete	83
Figure 4–13 BOD Category - Not Started	84
Figure 4–14 BOD Category - Started	84
Figure 4–15 BOD Category - In Progress	85
Figure 4–16 BOD Category - Completed	85
Figure 4–17 Housekeeping Category - Not Started	86
Figure 4–18 Housekeeping Category - In Progress	87
Figure 4–19 Housekeeping Category - Completed	
Figure 4–20 Alert Generation Category - Not Started	88
Figure 4–21 Alert Generation Category - In Progress	

Figure 4–22 Exception Details	90
Figure 4–23 Exception Record Details	91
Figure 4–24 Exception record in Worklist application	92
Figure 6–1 Developers	
Figure 6–2 IT Technical Staff	98
Figure 6–3 Monitoring Application Performance	98
Figure 6–4 Application Performance Summary	
Figure 6–5 Log Level	99
Figure 6–6 Alert State	100
Figure 6–7 Select Task Code	102
Figure 6–8 Selection of Desired Transaction	102
Figure 6–9 Transaction Details	103
Figure 6–10 Transaction Metrics	103
Figure 6–11 Alert and Trend Details	103
Figure 6–12 Failure Events	104
Figure 6–13 Developers	
Figure 6–14 IT Technical Staff	105
Figure 6–15 IT Technical Staff - Monitor Batch Stats	105
Figure 6–16 Batch Performance Monitoring	106
Figure 6–17 Batch Performance Monitoring - Shell Details	106
Figure 6–18 Batch Performance Monitoring - Relative Performance Summary	/107
Figure 6–19 Shell Details	109
Figure 6–20 Shell Details - DDA Standing Instructions	
Figure 6–21 View of Batch Run	110
Figure 6–22 Stream Based Shells	111
Figure 6–23 Exception Log	111

Figure 6–24 Report Based Shells	112
Figure 6–25 Status of Report Based Shell	
Figure 6–26 Exception Report	113
Figure 6–27 Sample Report	114
Figure 6–28 Exception Log Table	114
Figure 6–29 Graphs	115
Figure 6–30 Input Parameters for Batch Handoff	116
Figure 6–31 Execution Unit	117
Figure 6–32 Abort Statistics	117
Figure 6–33 Failure Error Description	118
Figure 7–1 Oracle Enterprise Manager	120
Figure 7–2 UI Cluster in EM	121
Figure 7–3 WebLogic Domain for UI	
Figure 7–4 Metrics Chart	
Figure 7–5 Host Cluster in EM	123
Figure 7–6 Host Target in EM	123
Figure 7–7 Metrics Chart	
Figure 7–8 Viewing Process List	
Figure 7–9 OID WebLogic Domain	
Figure 7–10 Document Generation Status	
Figure 7–11 BIP Deployment	
Figure 7–12 EM Monitoring	126
Figure 7–13 Web Monitoring	126
Figure 7–14 Database Server Info	
Figure 7–15 Batch Monitoring Status	128
Figure 7–16 Batch Configuration	

Figure 7–17 WebLogic Service Info	. 129
Figure 7–18 Application Metrics of Application Services for all servers in cluster .	130
Figure 7–19 Application Metrics of Application Services for selected server	.130
Figure 7–20 Application Metric for all UI servers in cluster	132
Figure 7–21 Application Metrics of UI components for selected server	132
Figure 7–22 Application Metrics of Origination UI Components for all UI servers in cluster	า 134
Figure 7–23 Application Metrics of Origination UI components for selected server	134
Figure 7–24 Application Metrics of all outbound services called from all host serv ers in cluster	- . 136
Figure 7–25 Application Metrics of all outbound services called from selected server	136
Figure 8–1 File Data Store	144
Figure 8–2 Exported Data	153
Figure 8–3 Exported Files	154
Figure 8–4 Importing Data Using SOAP UI - Storing Response	. 158
Figure 8–5 Entity Comparison	159
Figure 8–6 Entity Comparison Results	. 159
Figure 8–7 Progress Bar	160
Figure 8–8 Comparison Details	. 160
Figure 8–9 Attributes Difference	. 161
Figure 10–1 Partition Script - SQL Statement	. 172
Figure 10–2 Utility Table Creation Script	. 173
Figure 10–3 Verify ADO Policies	. 174
Figure 13–1 Credentials	. 184
Figure 13–2 Example of premissions	. 184
Figure 13–3 Connection details	185

Figure 14–1 Auto Purge	. 187
Figure 14–2 Lazy Loading Settings	188
Figure 14–3 Claim Action	188
Figure 14–4 Enable External Window option	189

List of Tables

Table 6–1 Alert State	100
Table 6–2 Category Details	107
Table 6–3 Shell Details	108
Table 6–4 Stream Details	110
Table 6–5 Reports Table	112
Table 7–1 Notations in EM	119
Table 7–2 Details of the Application Metrics table of Application Services	130
Table 7–3 Details of the Application Metrics table of UI Components	132
Table 7–4 Details of the Application Metrics table of Origination UI Components	134
Table 7–5 Details of the Application Metrics table of all Outbound Services	136
Table 9–1 Shell Description	163
Table 9–2 Shell Execution Sequence	166
Table 10–1 Values for ILM Configuration	169
Table 11–1 TDE Configuration	175
Table 12–1 TDE Configuration	179

Preface

This guide describes how to administer the Oracle Banking Party Management applications environment, including user administration, batch execution, application monitoring, and bank and branch setup.

Oracle recommends that you review its contents before installing, or working with the product.

This preface contains the following topics:

- Audience
- Documentation Accessibility
- Organization of the Guide
- Related Documents
- Conventions

Audience

This guide is intended for the administrators of Oracle Banking Party Management.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at

http://www.oracle.com/us/corporate/accessibility/index.html

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Organization of the Guide

This document contains:

Chapter 1 Users Administration

This chapter describes all user management related activities to be performed by an administrator for Oracle Banking Party Management.

Chapter 2 Approvals Management

This chapter describes worklist authorization related activities to be performed as an administrator.

Chapter 3 Defining Task Configuration Rules

This chapter describes various configurations that can be done for human tasks.

Chapter 4 Data Management

This chapter describes data related activities to be performed as an administrator.

Chapter 5 Setting Up The Bank And Branch

This chapter provides the process of setting up the bank and the branch commonly referred to as the Day 0 setups.

Chapter 6 Application Monitoring Using Administration Application

This chapter provides an overview on the various monitoring operations performed as an administrator using application screens.

Chapter 7 Application Monitoring Using EM Plugin

This chapter provides an overview on the various monitoring operations performed as an administrator, using Enterprise Manger (EM) Plugin.

Chapter 8 Configuration Export-Import Operations

This chapter gives an insight to the Configuration Export-Import operations.

Chapter 9 Batch Shells in OBPM

This chapter describes the batch shells used in Oracle Banking Party Management and their execution sequence.

Chapter 10 Information Lifecycle Management (ILM)

This chapter describes the configuration, installation, and policy setup of Information Lifecycle Management (ILM).

Chapter 11 Transparent Data Encryption (TDE)

This chapter describes the configuration, installation, and policy setup of Transparent Data Encryption (TDE).

Chapter 12 Masking Customer Private Data

This chapter describes the configuration, installation, and policy setup to mask customer private data categories as sensitive or Personally Identifiable Information (PII).

Chapter 13 Configure ODI for Inbound Document Upload

This chapter provides the steps to configure ODI for Inbound Document Upload

Chapter 14 Additional Recommendations

This chapter provides specific recommendations to be considered for implementation:

Related Documents

For more information, see the following documentation:

- For installation and configuration information, see the Oracle Banking Party Management Installation Guide - Silent Installation.
- For a comprehensive overview of security, see the Oracle Banking Party Management Security Guide.
- For the complete list of Oracle Banking licensed products and the Third Party licenses included with the license, see the Oracle Banking Party Management Licensing Guide.
- For information related to customization and extension, see the Oracle Banking Party Management Extensibility Guides for Host, SOA, and UI.
- For information on the functionality and features, see the respective Oracle Banking Party Management Functional Overview document.
- For recommendations of secure usage of extensible components, see the Oracle Banking Party Management Secure Development Guide.

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

1 Users Administration

This chapter describes all user management related activities to be performed by an administrator for the application.

1.1 Creating Users in Oracle Identity Manager (OIM)

This section explains the procedure to create users in Oracle Identity Manager (OIM).

To create users in OIM:

1. Log in to OIM with the User ID as **xelsysadm** and the relevant <Password>.

Figure 1–1 Creating Users in OIM - Log in

2. Click **Users** under the Manage section.



Figure 1–2 Creating Users in OIM - Manage Section

- 3. In the Search Users page, search for existing users. The Search Results appear.
- 4. Click Create in the Search Results section to create a new user.

	Users x								
🔒 L	Jsers								
Searc	h Display Name	•	Q, Adv	vanced					
Acti	ons 🔻 View 💌	+ Create 🖉 Op	en 🗘 Refresh	📭 📓 Deta	ach				
	User Login	Display Name	First Name	Last Name	Organization	Telephone Number	E-mail	Identity Status	Account St
	HARRY	Harry Potter	Harry	Potter	Xellerate Users		Harry@gmail.com	Active	Unlocked
	OIMINTERNAL	Internal User	OIMINTERNAL	OIMINTERNAL	Xellerate Users			Active	Unlocked
	WEBLOGIC	Weblogic User	WEBLOGIC	WEBLOGIC	Xellerate Users			Active	Unlocked
Copyrigh	XELSYSADM	System Adminis e and/or its affiliates. All ri	System ghts reserved	Administrator	Xellerate Users		donotreply@ora	Active	Unlocked
Copyrigh	XELSYSADM	System Adminis	System	Administrator	Xellerate Users		donotreply@ora	Active	Unlocked
Copyrigh	XELSYSADM	System Adminis	System	Administrator	Xellerate Users		donotreply@ora	Active	Unlocked
Copyrigh	XELSYSADM	System Adminis	System	Administrator	Xellerate Users		donotrepty@ora	Active	Unlocked
Copyrigh	XELSYSADM	System Adminis	System	Administrator	Xellerate Users		donotrepiy@ora	Active	Unlocked
Copyrigh	XELSYSADM	System Adminis	System	Administrator	Xellerate Users		donotrepiy@ora	Active	Unlocked
Copyrigh	XELSYSADM	System Adminis	System	Administrator	Xellerate Users		donotrepiy@ora	Active	Unlocked
Copyrigh	XELSYSADM	System Adminis	System	Administrator	Xellerate Users		donotrepiy@ora	Active	Unlocked

Figure 1–3 Creating Users in OIM - Click Create

5. In the Create User page, enter the required user details.

Increases a record received by the receive	ity Self Service ×	+	dow radicast-trues, adf.ct	state-putk	C Q Search	人内区	1.	<u>ہ</u>
Center Value v Center Value v Create User v Create v Create User	10.180.87.223.140			restace=ry rki	Sandboxes	Customize xelsvsadm		n
Create User C	ORACL	e Identity Self Service					DDDDDDDDDDDDD	
Fine User x Create User A Request Information Effective Date Justification If asic Information If asic Inf						Sell Service	nage	
Create User Cancel A Request Information Effective Date Manager * Cognitization Middle Name * Cognitization X Account Settings User Lopin User Lopin Clark Y Constrainton X Account Effective Date Start Date Content	Home Users x	Create User ×						
A Request Information Effective Date Dustification A Basic Information First Name Clark Manager Constraine Cark Manager Constraine Cark Display Name Cark Password Cark Passwo	Create User				Submit	Save As V Can	cel	
Effective Date	A Request In	formation						
Justification	Effective Date	ΰœ						
Justification								
A Basic Information First Name Clark Middle Name * Organization Kellerate Users * Last Name Kent E-mall Display Name Account Settings User Login Clark Password ···· Account Effective Dates Start Date To	Justification							
Basic Information First Name Clark Manager Organization Velerate Users Organization Velerate Users Ouser Type Other Other Display Name Juser Login Clark Password Ouser Confirm Password	Justification							
A Basic Information First Name Isrt Name								
A Basic Information First Name Clark Middle Name * Organization Xelierate Users * Last Name Kent * User Type Display Name A Account Settings User Login Clark Password * Confirm Password * Confirm Password * Confirm Password								
Hist Name Cark Middle Name * Last Name * Last Name * Last Name * Last Name * User Type * User Login Clark Password * Confirm Password <td>▲ Basic Inform</td> <td>ation</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	▲ Basic Inform	ation						
Last Name Kent Control Clark Last Name Control Clark Password Control Effective Dates Start Date End Date	Middle Name	lark	* Organization	Yellerate Lisers		0		
E-mail Display Name Display Name Display Name Name Name Name Name Name Name Name	* Last Name	Cent	* User Type	Other	•			
Account Settings User Login Password Password Clark Password Clark Account Effective Dates Start Date End Date Comparison Clark End Date Comparison Clark Clark Comparison Clark	E-mail		Display Name					
User Login Clark Password * Confirm Password Account Effective Dates Start Date End Date	Account Sett	ings						
Password Confirm Password Confirm Password Account Effective Dates Start Date End Date Confirm	User Log	in Clark						
* Confirm Password •••••• A Account Effective Dates Start Date End Date	Passwo	rd	0					
Account Effective Dates Start Date End Date	* Confirm Passwo	rd						
Start Date	Account Effe	ctive Dates						
End Date	Start Date	t o						
	End Date	1						

Figure 1–4 Creating Users in OIM - Enter User Details

				-
* Confirm Password				
Account Effective Date	s			
Start Date	Ċ			
End Date	Ì			
Provisioning Dates				
Provisioning Date	Ťò			
Deprovisioning Date	Ť			
Contact Information				
Telephone Number		Postal Address		
Home Phone		Postal Code		
Fax		PO Box		
Mobile		State		
Pager		Street		
Home Postal Address		Country		
✓ Preferences				
Locale	-			
Timezone	-			
Other Attributes				
Common Name		Locality Name		
Department Number		Initials		
Employee Number		Title		
Generation Qualifier				
Hire Date	10			

Figure 1–5 Enter User Details (Continued)

6. Click Submit.

On completion of this procedure the user gets created in OIM, and gets synced in OID.

1.2 Creating Roles in Oracle Identity Manager (OIM)

This section explains the procedure to create roles in Oracle Identity Manager (OIM).

To create roles in OIM:

1. Click **Roles** under the Manage section.

Figure 1–6 Creating Roles in OIM - Manage Section



- 2. In the Search Roles page, search for existing roles. The Search Results appear.
- 3. Click **Create** in the Search Results section to create a new Role.

Search Name Advanced Actors View + Create Open Delete Refresh Delete Advanced Actors View + Create Open Delete Refresh Delete Advanced Actors Advanced Advanced Advanced Actors Advanced Advanced Advanced Actors Advanced Advanced Actors Advanced Advanced Advanced Advanced Advanced Advanced Advanced Advanced Advanced	Search Actors Actors Cons Actors Actors Actors Actors Actors Actors	Roles	
Search Name dvanced Actions + View + Create Open & Delete () Refresh Role Description Circuit ALL USERS Default role for all users Circuit ALL USERS Default role for SOA Circuit All INStrators role for SOA Circuit All Operator role Circuit SELF OPER Operator role for self registration Circuit SYSTEM AD System Administrators role for OIM	Search Name Advanced Actions View + Create Open Open Operator Open Delete Refresh E Detach Anne Role Description Administrators Administrators role for SOA Administrators of efor SIP Publisher Reports Administrators Operator role SELF OPER Operator role for self registration SYSTEM AD System Administrator role for OIM Appright Ø 2001, 2015, Oracle and/or its affiliates. All rights reserved		
Actions v View v + Create Open N Delete O Refresh Name Role Description Image: Administrators Default role for all users Image: Administrators Administrators role for SOA Image: BlReportAd Administrators role for SIP ubblisher Reports Image: OPERATORS Operator role Image: SYSTEM AD System Administrators role for OIM Image: System Administrator role and/or its atfiliates. All rights reserved	Actions v View v + Create Open Delate C Refresh P Delata Name Role Description Administrators role for all users Administrators role for SOA BiReportAd Administrators role for SOA BiReportAd Administrators role for BI Publisher Reports Operator role S SELF OPER Operator role for self registration System Administrator role for OIM	Search	Advanced
Name Role Description Image: ALL USERS Default role for all users Image: Administrators Administrators role for SOA Image: Administrators Administrators role for SOA Image: BIReportAd Administrators role for BI Publisher Reports Image: OPERATORS Operator role Image: SELF OPER Operator role for self registration Image: SYSTEM AD System Administrator role for OIM	Name Role Description Image: Administrators Default role for all users Image: Administrators Administrators role for SOA Image: BlReportAd Administrators role for BI Publisher Reports Image: OPERATORS Operator role Image: SELF OPER Operator role for self registration Image: SYSTEM AD System Administrator role for OIM	Actions View	+ Create 🖌 Open 💥 Delete 🗘 Refresh 🛛 🛱 🗮 Detach
ALL USERS Default role for all users Administrators role for SOA Administrators role for SOA BIReportAd Administrators role for BI Publisher Reports OPERATORS Operator role SYSTEM AD System Administrator role for OIM pyryright © 2001, 2015, Oracle and/or its affiliates. All rights reserved	ALL USERS Default role for all users Administrators Administrators role for SOA Administrators role for BI Publisher Reports Administrators Operator role Administrators Operator role SELF OPER Operator role for self registration SYSTEM AD System Administrator role for OIM	Name	Role Description
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pyrright © 2001, 2015, Oracle and/or its affiliates. All rights reserved	pyright© 2001, 2015, Oracle and/or its affiliates. All rights reserved	SYSTEM AD	System Administrator role for OIM

Figure 1–7 Creating Roles in OIM - Click Create

4. Fill the role details.

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Figure 1–8 Creating Roles in OIM - Enter Role Details

5. Click **Finish.** The role is created successfully.

This role creates a group in OID.

While running the PIT (Policy Import tool), the Enterprise role (OIM role or OID group in this scenario) is mapped to the Application Role in OES.

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Figure 1–9 Creating Roles in OIM - Role Created Successfully

1.3 Assigning Roles to Users in OIM

This section explains how to assign roles to the user in OIM.

To assign a role to a user:

- 1. Log in to OIM.
- 2. Navigate to the Roles Tab under the User.
- 3. Click Request Roles.



Figure 1–10 Assigning Roles in OIM - Requesting Roles

4. In the Catalog page, select the required role and click Add to Cart. The item gets added to the cart.

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Search and select individual items from the Catalog tab. Sets of pre-bundled items commonly used in your organization can be selected from the Request Profiles tab. Catalog Request Profiles Search Keyword Search Search Search Search Search Add Selected to Cart Select All TestFullAccess TestFullAccess Image: TestFullAccess Profit @ 2001, 2015, Oracle and/or its affiliates. All rights reserved	Back	Access Checkout	Cancel Next	Cart
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Figure 1–11 Assigning Roles in OIM - Adding to Cart

5. Click Checkout.

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	Dracle and/or its affiliates. All rights	; reserved					

Figure 1–12 Assigning Roles in OIM - Checkout Cart

6. In the Cart Details page, click Submit.

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	Start Date	Ċ	End Date					

Figure 1–13 Assigning Roles in OIM - Submit Cart

On completion of this procedure the role gets assigned to the user in OIM.

1.4 Locking Users in OIM

This section explains how to lock the user in OIM.

To lock a user:

- 1. Log in to OIM.
- 2. Click Lock Account to lock a user.

A message appears, Are you sure you want to lock the account for the following user?

3. Click Lock.



Figure 1–14 Locking Users in OIM

The user is locked successfully.

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User Login	Display Name	First Name	Last Name	Organization	Telephone Number	E-mail	Identity Status	Accoun
HARRY	Harry Potter	Harry	Potter	Xellerate Users		Harry@gmail.com	Active	Locked
OIMINTERNAL	Internal User	OIMINTERNAL	OIMINTERNAL	Xellerate Users			Active	Unlocked
WEBLOGIC	Weblogic User	WEBLOGIC	WEBLOGIC	Xellerate Users			Active	Unlockee
XELSYSADM	System Adminis	System	Administrator	Xellerate Users		donotreply@ora	Active	Unlockee
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Figure 1–15 User Locked Successfully

1.5 Unlocking Users in OIM

This section explains how to unlock the user in OIM.

To unlock a user:

- 1. Log in to OIM.
- 2. Click Unlock Account to unlock a user.

A message appears, Are you sure you want to Unlock these users?

3. Click Unlock.

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	User Login	Display Name	First Name	Last Name	Organization	Telephone Number	E-mail	Identity Status	Account St	
	HARRY	Harry Potter	Harry	Potter	Xellerate Users		Harry@gmail.com	Active	Unlocked	
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	WEBLOGIC	Weblogic User	WEBLOGIC	WEBLOGIC	Xellerate Users			Active	Unlocked	
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Figure 1–16 Unlocking Users in OIM

The user is unlocked successfully.

1.6 Resetting User Password in OIM

This section explains how to reset user password in OIM.

- 1. Log in to OIM.
- 2. Click **Reset Password** to reset a user password.
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Number | E-mail | Identity Status | Account St |
| | HARRY | Harry Potter | Harry | Potter | Xellerate Users | | Harry@gmail.com | Active | Unlocked |
| | OIMINTERNAL | Internal User | OIMINTERNAL | OIMINTERNAL | Xellerate Users | | | Active | Unlocked |
| | WEBLOGIC | Weblogic User | WEBLOGIC | WEBLOGIC | Xellerate Users | | | Active | Unlocked |
| | XELSYSADM | System Adminis | System | Administrator | Xellerate Users | | donotreply@ora | Active | Unlocked |
| | | | | | | | | | |

Figure 1–17 Resetting User Password in OIM

The **Reset Password** dialog box appears.

You can select either **Manually change the Password** option to change the password manually or select the **Auto-generate the password (Randomly generated)** option to enable auto generation of the password.



Figure 1–18 Resetting User Password in OIM - Manually or Auto-generate

3. If you select the **Manually change the Password** option, enter the new password in the **New Password** and the **Confirm New Password** fields.



Figure 1–19 Resetting User Password in OIM - New Password

The user password is reset successfully.



Figure 1–20 Password Reset Successfully

1.7 User Management Using the Admin Application

The User Management screen is a quick start UI, provided to create initial users and verify the OBPM installation.

https://<ui-server-name>:<ui-server-port>/com.ofss.fc.ui.view.admin/faces/admin.jspx

To create initial users and verify the installation, perform the below mentioned steps:

- 1. Click Security tab in View Admin.
- 2. Select User Management.
- 3. Click + icon to add a user.

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Figure 1–21 Adding a User

4. Enter the mandatory fields required for creating a user.

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Figure 1–22 Enter Mandatory Details

5. Click **Apply Changes** to save the user details locally.

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Figure 1–23 Applying Changes

6. To add a user to a group, select the row containing the user and click **Assign Roles**.

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Figure 1–24 Adding User to a Group

The available and assigned roles appear.

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Figure 1–25 Available and Assigned Roles

7. Select the group to add user and move it to the **Assigned Roles** table.

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Figure 1–26 Adding User to Assigned Roles Table

8. Click **Ok** to save the changes.

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Figure 1–27 Save Changes

1.8 Unlocking Users in Oracle WebLogic Server (OWS) Administration Console

This section explains the procedure to unlock users in Oracle WebLogic Server (OWS) using Administration Console. If users unsuccessfully attempt to log in to a WebLogic Server instance for more than the configured number of retry attempts, they are locked out of further access. This procedure allows you to unlock locked users so that they can log in again.

To unlock a user in OWS:

1. Log in to OWS. The **Home Page** of OWS Administration Console appears.

Figure 1–28 OWS Log in



2. In the Domain Structure section, click the base_domain link.

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	Administration Console		
hange Center	🏦 Home Log Out Preferences 🔤 Record Help	Q	Welcome, weblogic Connected to: base_do
fiew changes and restarts	Home		
ick the Lock & Edit button to modify, add or	Home Page		
lete items in this domain.	- Information and Resources		
Lock & Edit	Information and Resources		
Release Configuration	Helpful Tools	General Information	
	Configure applications	 Common Administration Task Descriptions 	
main Structure	 Configure GridLink for RAC Data Source 	 Read the documentation 	
se domain	 Recent Task Status 	 Ask a question on My Oracle Support 	
base domain	 Set your console preferences 	 Oracle Guardian Overview 	
Services	Oracle Enterprise Manager		
"Security Realms	 Domain Configurations 		
-Interoperability	Descrip	Consistent	Y-have and billing
"Diagnostics	Domain	Services	Interoperability
	• Donan	 Messaging IMS Servere 	Write Servers
	Factor and	 Store-and-Enrward Agents 	 Joir Connection Pools
	Environment	 MS Modules 	
	Servers	Path Services	Diagnostics
	Clusters	Bridges	Log Files
w do I	Virtual Hosts	Data Sources	Diagnostic Modules
	Geberenes Services	Data Sources Persistent Stores	Diagnosuc images Diagnosuc images
Search the configuration	Coherence Servers Coherence Clusters	VM Registrian	Archiven
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Record WLST Scripts	Machines Wash Management	And Entity Caches Entity Caches	Context Saluta
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	J Very Declared Reserves	Mail Sections	Charts and Graphs
/stem Status	Tour Deployed Resources	FileT3	Monitoring Dashboard
ealth of Running Servers	Deproyments	• TTA	
Failed (0)	Very Application's Constitut Collinse		
Critical (0)	Convict Dealers		
Overloaded (0)	Security Realities		
Warning (0)			
OK (2)			

Figure 1–29 base_domain

10.180.25.185:7001/console/console_portal?_nfpb=true&_pageLabel=DormainConfigGeneralPage&DormainConfigGeneralPartlethandle=com.bea.console.handlesJMXHandle%28"com.bea%3AName%3Dbase_dormain%2CType%3DDorma...

3. In the **Settings for base_domain** page that appears, click the **Security** tab.

Figure 1–30 Security tab

← → C 10.180.25.185:7001/c	onsole/console.portal?_nfpb=true&_pageLab	el=DomainConfigGeneralPage&	DomainConfigGeneralPortlethandle=com.bea.console.handles.JMXF 숬
Consulting Env 🗋 Directory Manager 🕻	🗋 Env Links 🚦 Google 🦳 Links		C Other books
	Administration Console		Ç
hange Center leve Changes and restarts lick the Lock & Edit button to modify, add or lick the Lock & Edit Lock & Edit Release Configuration omain Structure see_domain Peoployments Peoployments Peoployments Stervices "Security Realms	A domain is a collection of WebLogic Server instances the	/eb Service Security Notes	Welcome, weblogic Connected to: base_doma weblogic Connected to: b
interoperability Diagnostics	* Indicates required fields * Name: Enable Administration Port	base_domain	The name of this WebLogic Server domain. More Info Specifies whether the domain-wide administration port should be enabled for
w do I 🖂	Administration Port:	9002	enabling the administration port requires that SSL must be configured for all servers in the domain. More Info The common secure administration port for this Welk opic Server domain. (Requires you to enable the administration port.) More Info
Configure the domain-wide administration port Archive configuration files Disable the Console	續 Production Mode:	true	Specifies whether all servers in this domain run in production mode. Once enabled, this can only be disabled in the admin server startup command line. More Info
Istem Status In the servers Faled (0)	🗌 👸 Enable Exalogic Optimizations		Specifies whether optimizations for Oracle Exalogic should be enabled. Optimizations include improved thread management and request processing, and reduced lock contention. This attribute should be enabled only when configuring a WebLogic domain for Oracle Exalogic. For more information, see "Enabling Exalogic-Specific Enhancements in Oracle WebLogic Server 11g Release 1 (10.3.4)" in the Oracle Exalogic Deployment Guide. More Info
Critical (0) Overloaded (0)	🗌 🕂 Enable Cluster Constraints		Specifies that deployments targeted to a cluster succeed only if all servers in the cluster are running. More Info
OK (2)	🗌 🚜 Enable on-demand deployment of internal	applications	Specifies whether internal applications such as the console, uddi, wistestclient, and uddiexplorer are deployed on demand (first access) instead of during server startup. More Info
	Generation Agent Advanced Save		Specifies whether the Guardian Agent is deployed when starting servers in the current domain. More Info
	Click the Lock & Edit button in the Change Center to me	odify the settings on this page.	

- 4. Click the **Unlock User** tab.
- 5. In the Unlock User field, enter the User ID to unlock the user.

Environment Summary × Task	List for Test Tracking 🗙 🦳 Issue Archives 🔹 🗴 🖸 Oracle Banking Platform 🗴 🗅 Security - P	base_domain - \ × 📃 🗖 🕮 🙁
← → C 🗋 10.180.25.185:7001/d		console.handles.JMXHandle%28"com.bea%3AName% 😭 🔳
🗋 Consulting Env 📋 Directory Manager 🕻	🗀 Env Links 🚦 Google 🦳 Links	🗀 Other bookmarks
	Administration Console	Q
Change Center	î Home Log Out Preferences 🖂 Record Help	Welcome, weblogic Connected to: base_domain
View changes and restarts	Home >base_domain	
Click the Lock & Edit button to modify, add or delete items in this domain.	Settings for base_domain	
Lock & Edit	Configuration Monitoring Control Security Web Service Security Notes	
Release Configuration	General Filter Unlock User Embedded LDAP Roles Policies	
Domain Structure	Save	
base_domain ⊕"Environment ™Services ™Services	If a user unsuccessfully attempts to log into a WebLogic Server instance more than the configured number of retry attempt. This page allows you to unlock a locked user so that they can log in again.	pts, they are locked out of further access.
Interoperability Transition	Unlock User: HardikA	Name of a specific user to unlock. More Info
	Save	
How do I 🖂		
Unlock user accounts		
Set user lockout attributes		
System Status		
Health of Running Servers		
Failed (0) Critical (0) Overloaded (0) Warning (0) OK (2)		
WebLogic Server Version: 10.3.5.0 Copyright © 1996,2010, Oracle and/or its affiliates. All Oracle is a registered trademark of Oracle Corporation	rights reserved. n and/or its affiliates. Other names may be trademarks of their respective owners.	

Figure 1–31 Unlock User

6. Click **Save.** The message *User successfully unlocked* appears.

C C	-					
🔚 Environment Summary 🛛 🗙 🎦 Task	List for Test Tracking 🗙 💙 🔲 Issu	e Archives	× 💙 🖸 Oracle Banking	Platform × 🗋 Security - base	_domain - \ 🗙 📃	
← → C 🗋 10.180.25.185:7001/c	:onsole/console.portal?_nfpt	=true&_pageLab	el=DomainUnlockUs	erPage&handle=com.bea.con	sole.handles.JMXHandle%28"	com.bea%3AName% 숬 🗧
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Change Center View changes and restarts Click the Lock & Edit button to modify, add or delete items in this domain.	Home Log Out Preferences Home >base_domain Messages Vuser successfully unlocked.	Record Help	٩		Welcome, wel	ologic Connected to: base_domain
Lock & Edit	Settings for base_domain					
Release Configuration	Configuration Monitoring Co	ntrol Security W	/eb Service Security Notes			
Domain Structure	General Filter Unlock Use	r Embedded LDAP	Roles Policies			
base_domain ⊕ Environment ├─Deployments ⊕ Services ⊕ Services ⊕ Interoperability ⊕ Diagnostics	Save If a user unsuccessfully attempt This page allows you to unlock a Unlock User: Save	; to log into a WebLogic locked user so that they HardlikA	. Server instance more than th y can log in again.	e configured number of retry attempts, Nam	they are locked out of further access. e of a specific user to unlock. More Infi	D
How do L • Unlock user accounts • Set user lockout attributes						
System Status						
Health of Running Servers						
Falled (0) Critical (0) Overloaded (0) Warning (0) OK (2)						
Weblogic Server Version: 10.3.5.0 Copyright © 1996,2010, Oracle and/or its affiliates. All Oracle is a registered trademark of Oracle Corporation	rights reserved. n and/or its affiliates. Other names may be	trademarks of their respe	ictive owners.			

Figure 1–32 User Successfully Unlocked

On completion of this procedure the user gets unlocked in OWS.

1.9 Creation of first time user to access OBPM

This section explains the procedure to create the first bank user having access to the application.

Note

Make the default authenticator as sufficient in host console and reorder it below OID Authenticator. Also change 'cn' attribute to 'uid' in the All Users Filter and User From Name Filter in OID Authenticator provider specific properties.

- Log in to OIM using the admin user *xelsysadm*. Create a new role in OIM as described in Section 1.2 Creating Roles in Oracle Identity Manager (OIM). For example, Developer. This creates a group in OID (Developer).
- 2. Log in to admin application using the weblogic user. Create a user as described in Section 1.7 User Management Using the Admin Application. For example, john.doe.

- 3. Add the user (john.doe) to the Developer.
- 4. Map the application role Administrators to the Enterprise Group Developer in EM (refer screenshots below). After doing this, the user should have access to all artifacts assigned to the 'Administrators' role. These access rights can be viewed in OES.

Figure 1–33 Log in Oracle Fusion Middleware Control

SIGN IN TO ORACLE ENTERPRISE MANAGER FUSION MIDDLEWARE CONTROL 12c	
Domain Domain_ut_domain " User Name verdogic " Passeot " Domain_ut_domain " used verdogic " " "	



Figure 1–34 Click Application Roles

Figure 1–35 Select Administrators Role

DRACLE Enterpris	se Manager Fusion Middleware Control 12c		👫 WebLogic Domain 👻 weblogic 👻 🚥
Ul domain O WebLogic Domain + Domain_ul_domain Vi_domain > Appl Application Roles	vication Roles		
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Domain_ui_domain/ui_domain > Appl Application Roles	olication Roles		06.3, 20.8 3 22 1 4 4 6 4 6 5 5 0
Application Roles			
ppication roles are the roles used by To manage users and groups in the	y security aware applications that are specific to the e WebLogic Domain, use the <u>Oracle WebLogic Serv</u>	plication. These roles are seeded by applications in single global policy store when the applications are registered. These are also application roles that are created in the content of end users accessin Security Provider.	ng the application.
Policy Store Provider			
A Search			
select an application and enter a sear	rch keyword for the role name to search for roles de	ed by this application. Use the application stripe to search if the application uses a stripe that is different from the application name.	
	Application Stripe OBP	,	
	Role Name Starts With V	•	
Vew 👻 🗑 Create 🖹 🤅	Create Like 💉 Edit 💥 Delete		🗗 🖬 Detach
1			
Role Name	Display Name	Description	
OUS_PORTAL_USERS	OCS_PORTAL_USERS	UCS_PORTAL_USERS	A
Uninerkole	Отленое	Uninevole	
Individual-eroker	Individual-eroker	individual-solver	
Individual-Introducer	Individual-Introducer	indevidual-introducer	
Organisation-eroker	Urgan sation-eroker	ungan sason-sroker	
Urganisation-Introducer	Urgan sation-introducer	ungan assor-introducer	
AIM_ROR	AIM_Role	Al M_ROLE	
PUS_KOR	PUS_ROE	Publication	
QualityAdministrator	QualityAdministrator	User/permiterator	
Developer Organization	Developer	Leveloger	
SystemAdministrators	SystemAdministrators	System/Administrators	
Administrators	Administrators	Agministrators	
CinCollectonAdmin	CinCollectonAdmin	UnContestonAdmin	
Circonectorchailer	CincolactorDialer	CinConkeronaler	
Ole Callerine Columbia	Cis Callester Cit addid	Dualmess recovering	
Circolectorerssive	CRONNERPELSING		
Ourteman	Customer	Contracting Contra	
ClaCallanta CoDentité	Classifier	Cascher De strategeneration	
CircolectorErrinted	CircolectorEnerro		
CircolectorRecov	Circolectinectov		
Circopervisorom	Circopersonal	Unicipality of United States and United States	
Circlepervsorrecov	Circopervsorrecov		
Cinterageron	Cinterageron	Ginerage Gin	
Global Business Services - Team	Mam Ginhal Business Services - Team Mem	umanagemetov Gobel Borinas - Taere Marehar	
Groat Busiless Berrices - Team	I went Orodal bosiness devices - realitiment	uncual dusines derives " realit interfuer	*
4			•
4 Membership for Admini	istrators		
Principal Displa	lay Name Type De	ription	
Administrators Admini	istrators Group Gr	of Administrators	

Figure 1–36 Add Principal

	Manager Fusion Middleware Control 12c										👫 WebLogic Domain 🔻	weblogic v ····
ui_domain 0											Oet 3, 2018 3:26	:08 PM GMT+05:30 👌
/Domsin_ui_domsin/ui_domsin > Applic	ation Roles > Edit Application Role											
Edit Application Role : A	dministrators											OK Cancel
Role (or Enterprise Role) is the group of	users designed at the enterprise level and typically used to	assign a privilege or permission. A rol	e can also contain oti	her roles as m	embers.							
General												
Application Stripe	OBP											
Role Name	Administrators	1	Add Principal									
Display Name	Administrators		Specify criteria to sea	rch and select	the application re	ples that you we	ant to grant perm	rissions to.				
Description	Administrators		A Search									
		<u>li</u> .		Type	Group	۲						
Members An application role may need to be map	ped to users or aroups defined in enterprise LDAP server, or	the role can be mapped to other a	Prir	ncipal Name	Starts With V	Developer						
View - + Add X Delete	. Detach		Di	isplay Name	Starts With ¥			•				
Name			Searched Principals							Display Name	Туре	
Administrators		-	Manu - Di De	daab						Administrators	Grou	p
•			view v m.; De	rtacn			1.41					Þ
			Principal		Display Name	0	escription					
		-	Developer		Ceveoper	0	roup or Develops	er users				
			Advanced Optic	m								
			Check to enter p scenarios relate	principal name id to custom ai	here instead of s uthenticators.	earching from	sbove. This optic	on can be used t	for advanced			
								ок	Cancel			
								_	- d			

2 Approvals Management

This chapter describes worklist authorization related activities and SOA composer rules setup to be performed by an administrator.

2.1 Enabling Worklist Authorization

This section explains the steps in enabling Worklist authorization. Following are the steps:

Step 1 Identify the Service Name

For example,

com.ofss.fc.appx.party.service.contact.ContactPointApplicationServiceSpi.updateAllContactPoints.

Step 2 Enable Dual Authorization or/and adding other severity

Once the services are identified, follow the below steps to enable Dual Authorization and adding other severity.

- 1. Log in to the application.
- 2. Navigate to Artifact Dependency Map (Fast path: SM500) page.
- 3. In the **Search Text** field, enter the service-name. com.ofss.fc.appx.party.service.contact.ContactPointApplicationServiceSpi.updateAllContactPoints

Figure 2–1 Select the Service to be Configured

≡⊂	DRACLE®						۹ 🔳	* - X	Posting Date 21-Sep-2020	ofssuser - 🚥
Party (Context									
Search by	Name ~	Artifact Dependency Map								🗙 E <u>x</u> it
Criteria	÷	✓ Resource Search								^
	Advanced Search	Search Text New 1 - General Details 2 Programmers and 2 Programmer	S ONTACLPOINTAPPICAL Province of the search	DD: PNS DESC: Insurance DESC: Insurance DESC: Insurance TYPE: MODULE DESC: Insurance TYPE: MODULE DESC: Insurance TYPE: MODULE DESC: Cordit Card TYPE: MODULE Severity Service	2 All Contact Points Require (Sample : Meaning and the second sec	r, salaman taalifinor, 905. NBBIT-Balaw / SMI3H-SBINOCE-Balawy				~

Fast Path/Screen Name Q 🗏 ★ - 🗙 Posting Date of ssuser - 📼
1 SM500 ×
Artifact Dependency Map X Est
A Resource Search
Setter Test: SERVICE.DB048.Party - Con Ner Construction of the MPCCONF or not reast. Dependent applies reast or from MPCCONF or not reast. Dependent applies reast or from MPCCONF or not reast. Dependent applies reast or from MPCCONF or not reast. Dependent applies reast or from MPCCONF or not reast. Dependent applies reast or from MPCCONF or not reast. Dependent applies reast or from MPCCONF or not reast or reast. Dependent applies reast or from MPCCONF or not reast reast. Dependent applies reast or from MPCCONF or not reast reast. Dependent applies reast or from MPCCONF or not reast reast. Dependent applies reast or from MPCCONF or not reast reast. Dependent applies reast or from MPCCONF or not reast reast. Dependent applies reast or from MPCCONF or not reast reast. Dependent applies reast or from MPCCONF or not reast. Dependent applies reast or from MPCCONF or not reast. Dependent applies reast or from MPCCONF or not reast. Dependent applies reast or from MPCCONF or not reast. Dependent applies reast or from MPCCONF or not reast. Dependent applies reast or from MPCCONF or not reast. Dependent applies reast or from MPCCONF or not reast. Dependent applies reast or from MPCCONF or not reast. Dependent applies reast or from MPCCONF or not reast. Dependent applies reast or reast or reast or reast. Dependent applies reast or reast or reast or reast or reast or reast reast or reast or reast or reast or reast or reast or
S Nill 2 3 4 5 6 6 7 7

Figure 2–2 Search for Service using TASK CODE + Search text (in case of non Origination)

- 4. Navigate to service node by following highlighted path (in grey color) and select the service node.
- 5. Click the **Approval Checks** tab and add approval checks.

Figure 2–3 Approval Checks tab - Add Approval Checks

	RACLE®					* -	21-Sep-2020	ofssuser 👻 🚥
Pa <u>r</u> ty Co	ontext		<u>ấ SM500 ×</u>					
Search by	Name	~	Artifact Dependency Map					🗙 E <u>x</u> it
Criteria		→	✓ Resource Search					
	Advanced Search		Search Text SERVICE.D004.09.prty - Con Mer 1. Search Series and Series Randow Lines MPLCXDIV to wate uses. 1. Series and series and a Lines MPLCXDIV to wate uses. 1. Series Series MPLCXDIV to wate uses. 1. Series Series MPLCXDIV to wate uses. 1. To repaid and information and series MPLCXDIV to wate uses. 1. Series MPLCXDIV to wate uses. 1. To repaid and information and series Means wate used on search barry and the process description. (Scarple - MPLCXDIV) and the series of the molecular distribution of attribute and series MPLCXDIV and the series MPLCXDIV and t	after, DC. //WI124-BIRICE-beleny				~

Step 3 Configure Severity

Enabling of dual authorization alone will not send the transaction for approval. Hence, we need to configure Severity for the identified service, to enable the call for approval workflow.

This can be configured from the Artifact Dependency Map (Fast path: SM500) page.

Follow the below steps to configure severity:

- 1. Log in to the application.
- 2. Navigate to the Artifact Dependency Map (Fast path: SM500) page.
- 3. In the **Search Text** field, enter the service com.ofss.fc.appx.party.service.contactPointApplicationServiceSpi.updateAllContactPoints.
- 4. Ensure approval checks are added. If not, then configure the approval checks.
- 5. Click the **Severity** tab and update the severity, if already maintained. Else, click **Add** button in the toolbar to add new row in the table.

Figure 2–4 Add New Severity

≡ 0	RACLE®						Fast Path/Screen Name	٩	E	* - >	Posting Date 21-Sep-2020	ofssuser - 🚥
Party C	ontext		* SM500	×								
Search by	Name	~	Artifact I	Dependency Map								🗙 E <u>x</u> it
Criteria	Advanced Search	+	ID: com.ofss.fc DESC: Me - MarketEr Fetch TYPE: SERVICE	appx.me DESC Me bttyApplc. WarketEnth anses Units Febt Marke TYPPE: SERVICE	px.me ID: com.ofss DESC: Com & Entities TYPE: SERVI	f. Geoground The correlation (for some care) to correct constraints to Correct Provide (Constraints point Constraints point Points Points						×
			General De	tails Permissions A	Detach	Severity Service Attributes Service Javadoo	0					
			VICW *		(iii) Detach							- 11
			Branch Code	Role ID	Channel Id	Reason Code	SE	/ERITY				
			ANY	Administrators	BRN	FC_BR_RES_001	IG	NORE				~
			ANY	Administrators	BRN	FC_BR_RES_001	IG	NORE				~
			ANY	Administrators	BRN	1000	IG	NORE				` _
			ANY	Administrators	BRN	1000	0	ERRIDE				
			ANY	Administrators	BRN	1000	RE	JECT	OVERRIDE			
			ANY	Administrators	BRN	1000	0	ERRIDE_LOCA	5			
			ANY	Administrators	BRN	1000	IG	NORE				~ v

6. Enter the following details in the **Severity** tab.

Branch Code	Branch code from which the transaction is to be performed. Specify ANY to configure for all branches. Example: 082991
Role ID	Security Role to which the user belongs and initiates the transaction.
Channel ID	Channels such as BRN, ATM, IB and so on, through which the transaction is performed.
Reason Code	Select Reason Code 1000 normal approval flow.
Severity	This field contains four values as detailed below:Ignore: Allows transaction to complete without any

authorization, that is Auto Authorization.Override: Transaction will be sent for Authorization.
 Notify: In this case, the task is not sent for authorization, but the user is expected to confirm the transaction for proceeding ahead. This option is not applicable in case of Dual Authorization.
 Reject: System does not allow to proceed with transaction.

To enable Dual Authorization, select **Override** option.

Note

If the Severity Configuration is already set up do not change it.

7. Save the newly added severity using the Save.

Figure	2-5	Save	Severity	Details
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earch by	Name ~	Artifact	Dependency Ma	ap			XE
riteria	+		Administration		Information		
	Advanced General	AINY	Administrators	DRIN	Messages for this page are listed below.	IGNORE	
	Advanced Search	ANY	Administrators	BRN	Operation completed successfully. Transaction reference number	IGNORE	~
		ANY	Administrators	BRN	:2020265080091838	IGNORE	~
		ANY	Administrators	BRN	ок	IGNORE	~
		ANY	Administrators	BRN	1000	IGNORE	~
		ANY	Administrators	BRN	FC_BR_RES_001	IGNORE	~
		ANY	Administrators	BRN	1000	IGNORE	~
		ANY	Administrators	BRN	1000	IGNORE	~
		ANY	Administrators	BRN	1000	IGNORE	~
		ANY	Administrators	BRN	FC_BR_RES_001	IGNORE	~
		ANY	Administrators	BRN	FC_BR_RES_001	IGNORE	~
		ANY	Administrators	BRN	FC_BR_RES_001	IGNORE	~
		ANY	Administrators	BRN	1000	OVERRIDE	~
		ANY	Administrators	BRN	1000	IGNORE	~
		ANY	Administrators	BRN	1000	IGNORE	~

Step 4 Testing Approvals

Once the configurations are done and a transaction is performed from a screen, it will be sent for approval. The process is explained with the following example.

- 1. Log in to the application.
- 2. Navigate to the Contact Point page in Single Party View.

Figure 2–6 Contact page of Single Party View

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<u>غ</u> ۳	Rob Ind 2	2, 000001076 - Cont			② Edit	1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.				
9	Add Conta	act Point Phone; Electro	onic Address						ľ	
¥¢	Phone									
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±.	Туре	Number		Alerts Preferred			Timing Preference	Timing Preference Actio		
	Landl	+3 3344556677			۲	۲	None 🦼	×		
	Landl	+61 1212121212				۲	None 🥖	× 🗙		
	Electronic Electronic	ic Address Communication Conse	ent Updated on 31-Jan-2017							
	Туре		* Contact Email	Preferred Emai	ID Action					
	Decesso		s@s.com	(0)	×					

3. Update the details and submit the transaction.

Figure 2–7 Update details and submit

anaps	hots						巨	A	×	NO)
1. 1. F	Rob Ind 2,	1 Information					×	\$	Edit	
0	Add Contac	Transaction has bee	n queued in the approval worklist. Workite	m ld : 201703100358	10801 , Reference N	umber : 201703100;	3580801.			ß
No.	Phone						ок			
	- Add									
. .	Type 1	Number	Alerts Preferre				Timing	nce	Actio	
-	Landl	+3 3344556677			0	۲	None	I	×	
	Landl	+61 1212121212			0	۲	None	N	×	
	Mobil	+61 333333333					None	/	×	
	Electronic C	Address communication Conse	nt Updated on 31-Jan-2017							
	Туре		* Contact Email	Preferred Email ID	Action					

4. Log in to the BMP Worklist application and approve the transaction.

Figure 2–8 Approve transaction in BPM Worklist

+ Add						
Гуре	Number		Alerts	Preferred	Timing Preference	Action
andline Fixed Landline Home	+3 = 3344556677				None 💉	×
andline Fixed Landline Work	+61 • 1212121212			۲	None 💉	×
lobile Personal	+61 🔻 333333333		0	•	None 🖋	×
ectronic Address						
	Updated on 31-Jan-2017					
lectronic Communication Consent						
ectronic Communication Consent						
ectronic Communication Consent	ontact Email	Preferred Email ID	Action			

5. Verify the details in the Contacts page of Single Party View.

Figure 2–9 Updated Details Approved

Snap	hots						×	
≜ ₹	Rob Ind 2, 000001076 - Contact Details							
9	Add Contact Point Phone; Electro	nicAddress						
Vo	Phone							
E,	+ Add							
£	Type Number			Alerts		Timing Preference	Actio	
	Landl +3 3344556677			0	0	None 💉	×	
	Landl +61 1212121212			0	۲	None 💉	×	
	Mobil +61 333333333					None 💉	×	
	Electronic Address Electronic Communication Conse	nt _ Updated on 31-Jan-2017						
	Туре	* Contact Email	Preferred Email II	D Action				

3 Defining Task Configuration Rules

Each human task in Origination business process has business rule associated with it. This business rule can be used to set various parameters for the task like SLA period, Assignees, task priority, task owner, STP configuration, and so on. Below sections illustrate the steps to configure such business rules.

3.1 Important Rule Artifacts

This section provides information about important rule artifacts.

3.1.1 Rules Dictionary

For each human task, a *<name>TaskConfigRules.rules* file is provided. For example, *VerifyApplicationTaskConfigRules.rules*. These rules dictionary files have to be used to configure attributes of the respective human task.

Rules dictionaries can be viewed and edited using Oracle SOA Composer. Oracle SOA composer can be accessed using http://<IP-of-SOA-server>:8001/soa/composer.

Figure 3–1 and Figure 3–2 illustrate the procedure of opening the rules dictionary for VerfiyApplicationTask.

Figure 3–1 SOA Composer - Open Rules Dictionary Browser

Create Session	nposer
Deployment View	Image: Strate of the filter string

Figure 3–2 SOA Composer – Selecting Rules Dictionary

	CACLE SOA Compos	e
		-
+	Create Session	
Deploy	yment View 🔻 👈 🖙	
Filter	VerifyApplication	
Infra		
ompos	sites	
ee defa	ault	
A H	com.ofss.fc.workflow.process.Verify	A
	TaskConfigBaseRules.rules	
	🔥 VerifyApplicationHT.task	
	VerifyApplicationHTRules.rule	s
	VerifyApplicationHTRulesBase	e.r
	VerifyApplicationTaskConfigR	1
lata		

3.1.2 Decision Function

Configuration rules are written in Rulesets, which are executed through a Decision Function. In each rules dictionary a decision function is provided by the name of <name>TaskConfigurationRulesDecisionService.

Figure 3–3 SOA Composer – Selecting Decision Function

+ Create Session	
Deployment View V E	VerifyApplicationTaskConfigRules.rules × Image: Second properties Image: Second properties
A Infra	R VerifyApplicationTaskConfig
default	VerifyApplicationTaskSTPRul Name VerifyApplicationTaskConfigRulesDecisionService
TaskConfigBaseRules.rules	Uescription Rule Firing Limit 10000
VerifyApplicationHT.task VerifyApplicationHTRules.rul	
VerifyApplicationHTRulesBa:	Rulesets are on stack once 👔
adata	Tests
	Initial Actions Inputs Outputs Rulesets & Decision Functions
	assert

3.1.3 Rulesets

Each decision function executes one or more rulesets. This is where the rules are written. Any rulesets that are defined in the rules dictionary can be added to be used in a decision function.

Figure 3–4 illustrates addition or removal of rulesets from a decision function.

Figure 3–4 SOA Composer - Adding Rulesets to Decision Function

🕒 OBP DevOps - Your OBP 🗙 🛛 🔀 OBP De	Ops 🗙 🙀 [OBPR26-4099] R2.6_Syst 🗙 💽 Application Form 🛛 🗙 🚺 soa-infra (SOA Infrastruc 🛪 🗸 🛅 BPM Worklist	x 🗅 SOA Composer x
← → C (① 10.180.87.63:8001/soa/co	nposer/faces/home?_adf.no-new-window-redirect=true	*
ORACLE: SOA Composer		Links v ofssuser v
+ Create Session		
Deployment View 💌 👈 🕞	VerifyApplicationTaskConfigRules.rules ×	21 - M = 1 0 ×
Filter VerifyApplication Q	🚳 Rules 🔄 Value Sets 😝 Globals 📓 Business Phrases 🕎 Tests 🚑 Translations Advanced > 🔍 Explorer 🛝 Facts 🧔	Contraction Properties of Links Actions
JA Infra	PriorityAndOwnerRuleSet View Properties	
Composites	PriorityAndOwnerRuleSet ype v DefaultRule Properties	
a 🛗 default	FirstStageAssignmentRuleSet	
TaskConfigBaseRules.rules	SLARuleSet applicationSummaryDTO is a applicationSummaryDTO	
VerifyApplicationHT.task	CustomAttributesRuleSet Click + to add an IF test condition	
VerifyApplicationHTRules.rul	TaskSTPRuleSet and exception/Attribution	
VerifyApplicationHTRulesBa	Add New Ruleset Click + to add on IE test condition	
stadata	and	
	taskConfigurationRuleOutcome is a taskConfigurationRuleOutcome	
	Click + to add an IF test condition	
	THEN	
	assign v taskConfigurationRuleOutcome.taskPriority = getTaskPriority(applic	cationSummaryDTO.header.priority)
	assign v taskConfigurationRuleOutcome.taskOwner = createTaskOwnerUser	ar(applicationSummaryDTO.header.initiatedBy)
	¢	
4		
	Diagnostics History Center Logs	NN
) 😼 🏨 🗹 🧞 🧶 🎆 🛝 😤 🕜 📓 🏭 🖉 😣 🗆	workspace Oracle 🕺 🖛 🎲 🌜 1000

Figure 3–5 shows what a ruleset looks like.

Figure 3–5 SOA Composer - Viewing a ruleset

🖗 Rules 📄 Value Sets 🕟 Globals 💕	Business Phrases 🕎 Tests 🔒 Translations Advanced > 🝳 Explorer 🛛 Facts 🚸 Decision Properties 🔗 Links								
PriorityAndOwnerRuleSet View Properties									
Rules 🗠 🔻 By Type 💌	DefaultRule Properties								
Search By Alias	applicationSummaryDTO is a applicationSummaryDTO								
DefaultRule	Click + to add an IF test condition								
	and								
	customAttributes is a customAttributes								
	Click + to add an IF test condition								
	and								
	taskConfigurationRuleOutcome is a taskConfigurationRuleOutcome								
	Click + to add an IF test condition								
	THEN								
	assign v taskConfigurationRuleOutcome.taskPriority = getTaskPriority(applicationSummaryDTO.header.priority)								
	assign v taskConfigurationRuleOutcome.taskOwner = createTaskOwnerUser(applicationSummaryDTO.header.initiatedBy)								
	4								

3.2 Inputs to Decision Function

A decision function can take in data objects as input. The rulesets executed by the decision function then work on those inputs to create the output.

Figure 3–6 shows the inputs to a decision function. In this example, there are two input objects - customAttributes of type CustomAttributes and applicationSummaryDTO of type ApplicationSummaryDTO.

Figure 3–6 SOA Composer - Viewing inputs to a Decision Function

VerifyApplicationTaskConfigRules.rule	s ×													
🚳 Rules 📄 Value Sets 🚯 Gir	obals	P Busin	ness Phrases	जित्त Tests	🔒 Translations	Advanced >	Q Explorer	II\ Facts	🏠 Deci	ision Properties	P Links			
RerifyApplicationTaskConfig														
🎪 VerifyApplicationTaskSTPRul.			Name	VerifyApplicationTaskConfigRulesDecisionService										
			Description											
		Rule	Firing Limit	10000										
				Make stateless										
				Rulesets are on stack once 🗿										
	Tests						٣							
	Initial	Actions	Innute	Outputs - Dulasate & Davisian Functions										
		Accordio	inputa			incuorită.								
								-						
	•		Name			Business I	ype		ree	List	Description			
		e a	applicationSum	maryDTO		applicationS	ummaryDTO		4					
		• 🔁 o	customAttribute	s		customAttrib	utes		4					

In the example, the applicationSummaryDTO is used in the rules to determine the task priority and the task owner. This is illustrated in Figure 3–5.

3.2.1 Custom Input Attributes

CustomAttributes allow three types of attributes - text, number and date, for which, it has following members, respectively:

- CustomTextAttributeList
- CustomNumberAttributeList
- CustomDateAttributeList

Each of these members has a list of respective types,

- CustomTextAttribute
- CustomNumberAttribute
- CustomDateAttribute

All of these three thee types have a similar steps to configure rules structure and have two members:

- attributeName, of type String
- attributeValue, of type String, int or dateTime, respectively

The UML class diagram of the type CustomAttributes is shown in Figure 2-g. For details on dateTime, please refer http://www.w3.org/TR/xmlschema-2/#dateTime

To access the custom attributes passed as input to the decision service, following three functions are provided:

- getCustomTextAttribute(CustomAttributes customAttributes, String attributeName)
 - Return type String
- getCustomNumberAttribute(CustomAttributes customAttributes, String attributeName)
 - Return type int
- getCustomDateAttribute(CustomAttributes customAttributes, String attributeName)
 - Return type XMLGregorianCalendar

Figure 3–7 shows example usage of custom attributes.

```
Figure 3–7 SOA Composer – Example Usage of Custom Attributes
```

```
assign new 

String dummyCustomInputText = getCustomTextAttribute(customAttributes, "dummyCustomInputText")
assign 

dummyCustomInputText = dummyCustomInputText.toUpperCase()
addCustomTextAttribute(taskConfigurationRuleOutcome, "dummyCustomOutputText", dummyCustomInputText)
assign new 

int dummyCustomInputNumber = getCustomNumberAttribute(customAttributes, "dummyCustomInputNumber")
assign 

dummyCustomInputNumber = dummyCustomInputNumber + 7
addCustomNumberAttribute(taskConfigurationRuleOutcome, "dummyCustomOutputNumber", dummyCustomInputNumber)
assign new 

XMLGregorianCalendar dummyCustomInputDate = getCustomDateAttribute(customAttributes, "dummyCustomInputDate")
assign 

dummyCustomInputDate = XMLDate.add days to(dummyCustomInputDate, 1)
addCustomDateAttribute(taskConfigurationRuleOutcome, "dummyCustomOutputDate", dummyCustomInputDate)
```

3.3 Output from Decision Function

The output for all task configuration decision functions is of the type TaskConfigurationRuleOutcome. This object holds as its attributes, the parameters needed for task configuration. The values for its attributes are set using the rules in the rulesets.

Figure 3–8 shows output definition of decision function.

Figure 3–8 SOA Composer – Viewing Output of a Decision Function

Ver	ifyApplica	ntionTaskConfigRul	les.rules	×											
8	Rules	Value Sets	😚 Glob	pals	🖌 Bus	siness Phrases	🕎 Tests 🔒 Translations Advanced > Q Explorer IN Facts 🚸 Decision Properties 🔗 Links								
	🎪 Verify	yApplicationTaskC	onfig												
	🧄 Verify	yApplicationTaskS	TPRul.			Name	VerifyAppli	/erifyApplicationTaskConfigRulesDecisionService							
						Description									
					Ru	lle Firing Limit	10000								
							✓ Make stateless								
							Rulesets are on stack once 👔								
						Tests	•								
				Initia	I Action	ns Inputs 🖸	utputs R	ulesets_& Decis	ion Functions						
	, Name					Business Type		s Type		Tree	List	Description			
				. 🖻	taskConfigurat	tionRuleOutcome		taskCon	igurationRuleOutco	ime					

3.3.1 List of Configurable Attributes in Rule Outcome

The following human task attributes can be set in TaskConfigurationRuleOutcome object:

1. Task Priority

The task priority can be set by assigning an integer value to the taskPriority attribute of the TaskConfigurationRuleOutcome object.For example, assign taskConfigurationRuleOutcome.taskPriority = 3

2. Service Level Agreement (SLA)

SLA consists of taskExpirationDuration and taskDueDuration.

To set SLA for the human task:

- create a new Sla object using createSLA(String expirationDuration, String dueDuration)
- assign it to taskConfigurationRuleOutcome.sla

For example:

assign taskConfigurationRuleOutcome.sla = createSLA("P5D", "P1D")

expirationDuration and dueDuration are of the type xsd:duration encoded in String. The format of *xsd:duration is PnYnMnDTnHnMnS*.

P is a literal value that starts the expression

nY represents n years

nM represents n months

nD represents n days

T is a literal value that separates date and time

nH represents n hours

nM represents n minutes

nS represents n seconds

In the example, we have an expiration duration of 5 days and due duration of 1 day. As another example, duration of 1 Month 15 days are represented by "P1M15D"

For more details on the Duration type, please refer http://www.w3.org/TR/xmlschema-2/#duration

3. Task Owner

Task owner can be set via following steps:

- create a new ParticipantSet object using createTaskOwnerUser(String ownerUser) or createTaskOwnerGroup(String ownerGroup)
- assign the new ParticipantSet object to taskOwner attribute of TaskConfigurationRuleOutcome

For example:

assign taskConfigurationRuleOutcome.taskOwner = createTaskOwnerUser("user1")

4. Stage Participant

Stage participant attribute, stageParticipant is of the type StageParticipant and it consists of following members:

- participant: A ParticipantSet object that holds the participant users and groups.
- filter: A UserFilterCriteria object that holds one or more than one UserAttributeFilterCriteria on which the users will be filtered. A criteria has an attribute name, attributeName, the value of which would determine the filter outcome, the reference value, attributeValue and one operator, out of equals, greater than, less than and in, which decided the type of comparison to be made between the actual value of the attribute and the reference value.

Following steps are supposed to be followed for assigning the stageParticipant:

- Create a ParticipantSet using one of the following functions.
 - createParticipant(String groups, String users): ParticipantSet
 - createParticipantFromUsers(String users): ParticipantSet
 - createParticipantFromGroups(String groups): ParticipantSet
- Create a new UserFilterCriteria.
- Create UserAttributeFilterCriteria objects using CreateUserAttributeFilterCriteria(String attributeName, String attributeValue, UserAttributeFilterOperator operator) and add them to UserFitlerCriteria using addUserAttributeFilterCriteria(UserFilterCriteria filter, UserAttributeFilterCriteria attributeFilter)
- Create a new StageParticiant from the ParticipantSet and the UserFilterCriteria using the function createStageParticipant(ParticipantSet participant, UserFilterCriteria filter)
- Add StageParticipant to the TaskConfigurationRuleOutcome using addStageParticipant or addStageParticipantWithStageName

Figure 3–9 shows an example for assigning a StageParticipant.

Figure 3–9 SOA Composer – Example for adding Stage Participant



5. Custom Output Attributes

Following methods may be used in order to add custom text, number or date attributes, respectively to the TaskConfigurationRuleOutcome:

- addCustomTextAttribute
- addCustomNumberAttribute
- addCustomDateAttribute

Figure 3–10 shows example usage of custom attributes.

Figure 3–10 SOA Composer – Example usage of custom attributes

 assign new < String dummyCustomInputText = getCustomTextAttribute(customAttributes, "dummyCustomInputText")</td>

 assign < dummyCustomInputText = dummyCustomInputText.toUpperCase()</td>

 addCustomTextAttribute(taskConfigurationRuleOutcome, "dummyCustomOutputText", dummyCustomInputText)

 assign new < int dummyCustomInputNumber = getCustomNumberAttribute(customAttributes, "dummyCustomInputNumber")</td>

 assign < dummyCustomInputNumber = dummyCustomInputNumber + 7</td>

 addCustomNumberAttribute(taskConfigurationRuleOutcome, "dummyCustomOutputNumber", dummyCustomInputNumber)

 assign new < XMLGregorianCalendar dummyCustomInputDate = getCustomDateAttribute(customAttributes, "dummyCustomInputDate")</td>

 assign < dummyCustomInputDate = XMLDate.add days to(dummyCustomInputDate, 1)</td>

 addCustomDateAttribute(taskConfigurationRuleOutcome, "dummyCustomOutputDate", dummyCustomInputDate)

3.3.2 List of Functions to Set Rule Outcome

Following functions are available to configure the TaskConfigurationRuleOutcome:

1. getTaskPrioriy(String priority): int

The input to this function is a number as a String and it returns the number as int type. For example, variable1.priority has a value of 2 getTaskPriority(variable1.priority) will return 2.

This method can be used when assigning the TaskConfigurationRuleOutcome.taskPriority

 createSLA(String expirationDuration, String dueDuration): SIa This method takes as inputs the expiration duration and due duration as Strings written in xsd:duration format. Please refer to the description of xsd:duration in section 3.2.1 - 2 Service Level Agreement (SLA) for more details.

3. createParticipantFromUsers(String users): ParticipantSet

Use this method to create ParticipantSet from a string containing user names separated with commas, that is, user1,user2,user3. The ParticipantSet can then be used as an input parameter to createStageParticipant function.

4. createParticipantFromGroups(String groups): ParticipantSet

Use this method to create ParticipantSet from a string containing group names separated with commas, that is, group1,group2. The ParticipantSet can then be used as an input parameter to createStageParticipant function.

5. createParticipant(String groups, String users): ParticipantSet

Use this method to create ParticipantSet containing users as well as groups. The first argument, groups, is a string containing group names separated with commas, that is, group1,group2, and the second argument, users, is a string containing user names separated with commas, that is,

user1,user2,user3. The ParticipantSet can then be used as an input parameter to createStageParticipant function.

6. getCustomTextAttribute(CustomAttributes customAttributes,String attributeName): String

This method is used to fetch a text attribute from a CustomAttributes object. Its inputs are:

- customAttributes: the CustomAttributes object from which attribute is to be fetched.
- attributeName: string containing the name of attribute that is to be fetched.

It returns the value for the specified attribute as a String.

7. getCustomNumberAttribute (CustomAttributes customAttributes, String attributeName): int

This method is used to fetch a number attribute from a CustomAttributes object. Its inputs are:

- customAttributes: the CustomAttributes object from which attribute is to be fetched
- attributeName: string containing the name of attribute that is to be fetched

It returns the value for the specified attribute as a int.

8. getCustomDateAttribute (CustomAttributes customAttributes,String attributeName): XMLGregorianCalendar

This method is used to fetch a date attribute from a CustomAttributes object. Its inputs are:

- customAttributes: the CustomAttributes object from which attribute is to be fetched.
- attributeName: string containing the name of attribute that is to be fetched.

It returns the value for the specified attribute as an XMLGregorianCalendar.

XMLGregorianCalendar is the java representation for xml dateTime. For more information see, http://docs.oracle.com/javase/1.5.0/docs/api/javax/xml/datatype/XMLGregorianCalendar.html

9. createUserAttributeFilterCriteria (String attributeName,String attributeValue,UserAttributeFilterOperator operator): UserAttributeFilterCriteria

This method constructs a new UserAttributeFilterCriteria object using the given parameters. Its inputs are:

- attributeName: string containing name of the attribute on which the filter criteria is based on.
- attributeValue: string containing the reference value with which the actual value of the attribute is compared to.
- operator: userAttributeFilterOperator object specifying the operator to be used for comparison. The allowed values are GREATER_THAN, LESS_THAN, EQUALS and IN. Refer Figure 3-7 for the UML class diagram of UserAttributeFilterOperator and the related types.

10. addUserAttributeFilterCriteria (UserFilterCriteriauserFilterCriteria, UserAttributeFilterCriteria): UserFilterCriteria

This method adds a UserAttributeFilterCriteria object to the given UserFilterCriteria object. Its input are:

- userFilterCriteria: userFilterCriteria object to which the attribute filter criteria needs to be added.
- userAttributeFilterCriteria: userAttributeFilterCriteria object which needs to be added to userFilterCriteria. UserAttributeFilterCriteria can be created using the function createUserAttributeFilterCriteria.
- 11. createStageParticipant (ParticipantSet participant,UserFilterCriteria userFilter): StageParticipant

This method is used to create a StageParticipant from ParticipantSet and a UserFilterCriteria, which are passed in as following parameters.

- participant: participantSet object which can be created using any of the three functions createParticipant, createParticipantFromUsers or createParticipantFromGroups.userFilter:
- userFilterCriteria object.

12. addStageParticipant

(TaskConfigurationRuleOutcometaskConfigurationRuleOutcome, StageParticipant stageParticipant): TaskConfigurationRuleOutcome

This method is used to add a StageParticipant to a TaskConfigurationRuleOutcome object.

- taskConfigurationRuleOutcome: taskConfigurationRuleOutcome to which the stage participant is to be added.
- stageParticipant: stageParticipant object which is added to taskConfigurationRuleOutcome. A StageParticipant can be created using createStageParticipant function

The function addStageParticipantWithStageName can also be used to the same task, and it also has the capability of setting the stage name.

13. createTaskOwnerUser(String ownerUser): ParticipantSet

This method is used to create a ParticipantSet, that is suitable to be set to TaskConfigurationRuleOutcome.taskOwner, from a string containing the owner user name, for example, user1. The ParticipantSet can then be assigned to TaskConfigurationRuleOutcome.taskOwner.

14. createTaskOwnerGroup(String ownerGroup): ParticipantSet

This method is used to create a ParticipantSet, that is suitable to be set to TaskConfigurationRuleOutcome.taskOwner, from a string containing the owner group name, for example, group1. The ParticipantSet can then be assigned to TaskConfigurationRuleOutcome.taskOwner.

15. addCustomTextAttribute (TaskConfigurationRuleOutcome ruleOutcome, String attrName,String attrValue): void

This method is used to add a custom text attribute to a TaskConfigurationRuleOutcome object. Its inputs are:

- ruleOutcome: the TaskConfigurationRuleOutcome object to which attribute is to be added.
- attrName: string containing the name of attribute that is to be added.
- attrValue: string containing the value of attribute that is to be added.
- 16. addCustomNumberAttribute(TaskConfigurationRuleOutcome ruleOutcome,String attrName,int attrValue): void

This method is used to add a custom number attribute to a TaskConfigurationRuleOutcome object. Its inputs are:

- ruleOutcome: the TaskConfigurationRuleOutcome object to which attribute is to be added.
- attrName: string containing the name of attribute that is to be added.
- attrValue: int containing the value of attribute that is to be added.

17. addCustomDateAttribute (TaskConfigurationRuleOutcome ruleOutcome, String attrName,XMLGregorianCalendar attrValue): void

This method is used to add a custom date attribute to a TaskConfigurationRuleOutcome object. Its inputs are:

- ruleOutcome: the TaskConfigurationRuleOutcome object to which attribute is to be added.
- attrName: string containing the name of attribute that is to be added.
- attrValue: XMLGregorianCalendar object containing the value of attribute that is to be added.

XMLGregorianCalendar is the java representation for xml dateTime. For more information see, http://docs.oracle.com/javase/1.5.0/docs/api/javax/xml/datatype/XMLGregorianCalendar.html

18. addStageParticipantWithStageNam

(TaskConfigurationRuleOutcometaskConfigurationRuleOutcome,StageParticipant stageParticipant,StringstageName): TaskConfigurationRuleOutcome

This method is has a similar function as that of addStageParticipant and is used to add a StageParticipant to a TaskConfigurationRuleOutcome object and also specify a stage name.

- taskConfigurationRuleOutcome: TaskConfigurationRuleOutcome to which the stage participant is to be added.
- stageParticipant: StageParticipant object which is added to taskConfigurationRuleOutcome. A StageParticipant can be created using createStageParticipant function.
- stageName: String containing the desired stage name.

4 Data Management

This chapter describes data related activities to be performed as an administrator.

4.1 Batch Execution

Batch Execution refers to bulk processing of records to perform business operations in real-time environment. Business operations include complex processing of large volumes of information, that is most efficiently processed with minimal or no user interaction using Batch Execution.

The batch process is run through the **End of Day (Fast path: EOD10)** page with a varied combination of category, job code and job type for a particular business day.

This section explains the steps involved in Batch Execution.

Note

To view the detailed procedure to be followed in the application page **End of Day (Fast Path: EOD10)**, see its context-sensitive help in the application.

4.1.1 Database Backup

Perform Database Backup before starting with the Batch Execution.

4.1.2 Navigate to End of Day Page

To navigate to the End of Day page:

- 1. Log in to the Admin Application.
- 2. Navigate to *End of Day* page either by entering the Fast path **EOD10** or through the menu **Administration > End of Day**.

Figure 4–1 End of Day (Fast path:EOD10)

E ORACLE [®]	Fast Path/Screen Name Q 🗏 🛧 Posting Date Jul 24, 2017 t3010 - E	
* E001 <u>0</u> ×		
End of Day	Print 🗷 Clear 💥 E <u>x</u> it	
✓ Category Details	,	1
* Process Category	Category Status	
Job Type	Process Date	1
Job Code 😡	Next Process Date	1
Category Start Time	Category End Time	1
Polling Interval	Last Refreshed Time	
✓ Process	Q Restart Start Recover	
✓ Shell Details	Ģ	
Clear All Filters		l
View v The Export To Excel R Detach		

4.1.3 Cutoff Category Execution

This category marks the logical closure of business in the system to ensure that all online transactions during batch run get processed with the next process date.

To execute the Cutoff category:

1. Select the relevant Category Details as shown in the table below:

Process Category	Cutoff
Job Type	GROUP
Job Code	BRN_GRP_1

2. Click the **Refresh** button. The rest of the **Category Details** and the **Process Details** appear.

Here, the Shell State is Not Started.

The Category Status is Fresh Start.

Figure 4–2 Cutoff Category - Not Started

							Fast Path/Screen Name 🔍 🗏 🗙	Posting D Jul 24, 20	ate 17 t3010	• •••
FOD10 ×										
End of Day								Print	Z Clear	🗙 E <u>x</u> it
✓ Category Details										
* Process Category Cutoff	~						Category Status Fresh Start			
* Job Type GROUP 🗸							Process Date Jul 21, 2017			
* Job Code BRN_GRP_1							Next Process Date Jul 24, 2017			
Category Start Time							Category End Time			
Polling Interval							Last Refreshed Time 03-Apr-2018 11:55:55			
A Process								Q Restart	Start	Recover
Shell Details										Ģ
Clear All Filters										
View 👻 📅 Export To Excel										
	~									
Name of Shell	Status Tr	end Duration	No of Aborts	Throughput	Total Records	Status	Expected Completion Time			
Cutoff Prologue	Not Started Tr	end 00:00:00								
¢										>

- 3. Verify the **Process Date** and the **Next Process Date**.
- 4. Click the **Start** button to begin the execution.

Once the process starts the **Category Status** and the **Shell State** of currently running process display *In Progress.*

Figure 4–3 Cutoff Category - Start

E ORACLE°										Fast Path/Screen Name	9	★ -	Posting Da Jul 24, 20	ate 17 t3010)
TEOD10 ×															
End of Day													Print	Z Clear	🗙 E <u>x</u> it
Category Details					 Info 	rmation			×						
	Process Category	Cutoff	~		The catego	ory has starte	ed. Logging Level	= WARNING		Category Status Fresh Start	Ν				
	* Job Type	GROUP 🗸						ок		Process Date Jul 21, 2017	10				
	* Job Code	BRN_GRP_1 ~								Next Process Date Jul 24, 2017					
	Category Start Time									Category End Time					
	Polling Interval	\sim								Last Refreshed Time 03-Apr-2018 11:57:	59				
✓ Process												c	& Restart	Start	Recover
A Shell Details															Ģ
Clear All Filters															
View 👻 🖑 Export To Excel	🖙 🗟 Detach														
			~												
Name of Shell			Status	Trend	Duration	No of Aborts	Throughput	Total Records	Status	Expected Completion Time					
Cutoff Prologue			Not Started	Trend	00:00:00										
https://mum00chi.ip.orocle.com/2	162/com ofer fe ui	view/facos/main is	ov#												

5. On completion of the category, the **Category Status** and the **Shell State** of all the processes display *Completed.*

Figure 4–4 Cutoff Category - Complete

								Fast Path/Screen Name Q 🗐 🌪 - Posting Date 130"	0
fod1 <u>0</u> ×									
End of Day								Print d Clea	🗙 Exit
✓ Category Details									
* Process Category Cutoff	~							Category Status Completed	
• Job Type GROUP 🗸								Process Date Jul 21, 2017	
* Job Code BRN_GRP_1								Next Process Date Jul 24, 2017	
Category Start Time 03-Apr-2018 11:58:	1							Category End Time 03-Apr-2018 11:58:11	
Polling Interval								Last Refreshed Time 03-Apr-2018 11:58:20	
' ⊿ Process								Restart Start	Recover
✓ Shell Details									Ģ
Clear All Filters									
View 🔻 🎟 Export To Excel									
	~								
Name of Shell	Status	Trend	Duration	No of Aborts	Throughput	Total Records	Status	Expected Completion Time	
Cutoff Prologue	Complete	-	00:00:00		0	0			

4.1.4 End of Day (EOD) Category Execution

This category performs the tasks required to mark closure of a business day in a bank. For example, value date cleaning, instruction expiry, auto disbursement instruction execution, bundle expiry, report generation and so on. Each task or transaction is performed by a shell in a predefined dependency and sequence.

To execute the End of Day category:

1. Select the relevant Category Details as shown in the table below:

Process Category	End of Day
Job Type	GROUP
Job Code	BRN_GRP_1

2. Click the Refresh button. The rest of the Category Details and the Process Details appear.

Here, the Shell State is Not Started.

The Category Status is Fresh Start.

Figure 4–5 EOD Category - Not Started

							Fast Path/Screen Name Q	🚔 - Posting Date - Jul 24, 2017 t3010 - 🚥
TEOD10 ×								
End of Day								Print 🧷 Clear 🗙 Exit
✓ Category Details								^
Process Category End of Day	~						Category Status Fresh Start	
* Job Type GROUP 🗸							Process Date Jul 21, 2017	G
Job Code BRN_GRP_1							Next Process Date Jul 24, 2017	
Category Start Time							Category End Time	
Polling Interval							Last Refreshed Time 03-Apr-2018 11:59:36	
▲ Process								Q Restart Start Recover
⊿ Shell Details								0
Clear All Filters								
View 👻 🍱 Export To Excel								
	~							
Name of Shell	Status Tren	d Duration	No of Aborts	Throughput	Total Records	Status	Expected Completion Time	
Reg CC Schedule Generation EOD Shell	Not Started Tren	d 00:00:00						^
Bundle Reports	Not Started Tren	d 00:00:00						
								v

- 3. Verify the **Process Date** and the **Next Process Date**.
- 4. Click the **Start** button to begin the execution.

Once the process starts the **Category Status** and the **Shell State** of currently running process display *In Progress.*

Figure 4–6 EOD Category - Start

								Fast Path/Screen Name Q	★ Posting Date Jul 24, 2017 t3010 - ■
The second secon									
End of Day									Print 🧷 Clear 💥 Exit
✓ Category Details			Inform	nation		:	ĸ		^
* Process Category End of Day	~		The category	has starte	d. Logging Level	= WARNING		Category Status Fresh Start	
• Job Type GROUP 🗸						ок		Process Date Jul 21, 2017	
Job Code BRN_GRP_1								Next Process Date Jul 24, 2017	
Category Start Time								Category End Time	
Polling Interval								Last Refreshed Time 03-Apr-2018 12:00:42	
A Process									Q Restart Start Recover
✓ Shell Details									Q
Clear All Filters									
View * 3 Export To Excel 📴 🔐 Detach									
	~								
Name of Shell	Status	Trend D	Duration	No of Aborts	Throughput	Total Records	Status	s Expected Completion Time	
Submission EOD Expiry Shell	In Progress	- C	00:00:00		0	0	0%	03-Apr-2018 08:00:41	^
	Not Started	- C	00:00:00		0	0	0%		~
https://mum00cbi.in.oracle.com:30162/com.ofss.fc.ui.view/faces/main.i	spx#								

Figure 4–7 EOD Category - In Progress

								Fast Path/Screen Name Q 📃 😽	Posting Jul 24, 2	Date 017 13010	
REDD10 ×											
End of Day									Print	Z Clear	🗙 E <u>x</u> it
✓ Category Details											^
Process Category End of Day	~							Category Status In Progress			
* Job Type GROUP 🗸								Process Date Jul 21, 2017			
* Job Code BRN_GRP_1 V								Next Process Date Jul 24, 2017			
Category Start Time 03-Apr-2018 12:00:	10							Category End Time			
Polling Interval								Last Refreshed Time 03-Apr-2018 12:01:08			- 11
✓ Process									C. Restart	Start Re	cover
✓ Shell Details											0
Clear All Filters											
View * 🎢 Export To Excel											
	~										
Name of Shell	Status	Trend	Duration	No of Aborts	Throughput	Total Records	Status	Expected Completion Time			
Insurance EOD Shell	Complete	-	00:00:00		0	0	0%				^
Processing of Reverse Sweep	Complete	_	00:00:00		0	0	0%				
											~

5. On completion of the category, the **Category Status** and the **Shell State** of all the processes display *Completed.*

Figure 4–8 EOD Category - Complete

								Fast Path/Screen Name 🤉 🗐 🌟 - Posting Date Jul 24, 2017 t3010	
Teop1g ×									
End of Day								Print dt Clear	🗙 E <u>x</u> it
✓ Category Details									^
* Process Category End of Day	~							Category Status Completed	- 11
• Job Type 🛛 GROUP 🖂								Process Date Jul 21, 2017	
Job Code BRN_GRP_1	\sim							Next Process Date Jul 24, 2017	
Category Start Time 03-Apr-2018	12:00:40							Category End Time 03-Apr-2018 12:01:30	
Polling Interval	~							Last Refreshed Time 03-Apr-2018 12:02:05	
^I ⊿ Process								Q Restart Start Rec	over
▲ Shell Details									G
Clear All Filters									
View 👻 💯 Export To Excel 📴 🔛 Detach									
	~								
Name of Shell	Status	Trend	Duration	No of Aborts	Throughput	Total Records	Status	Expected Completion Time	
DD Instruction Rearrangement For Calender Change	Complete	-	00:00:00		0	0			^
Customer Value Date EOD Shell	Complete	-	00:00:00		0	0			
PC Reports	Complete	-	00:00:00		0	0			~

4.1.5 Internal System EOD Category Execution

This category performs interest accrual, interest capitalisation, interest compounding, accounting balance verification, ledger balance verification and update and related reporting.

To execute the Internal System EOD category:

1. Select the relevant **Category Details** as shown in the table below:

Process Category	Internal System EOD
Job Type	GROUP
Job Code	BRN_GRP_1

2. Click the Refresh button. The rest of the Category Details and the Process Details appear.

Here, the Shell State is Not Started.

The Category Status is Fresh Start.

Figure 4–9	Internal	Svstem	EOD	Category -	Not	Started
i igui o i o	meenar			category		0.000

							Fast Path/Screen Name	目★.	Posting D Jul 24, 20	iate 117 t3010	
footig ×											
End of Day									Print	Æ Clear	🗙 E <u>x</u> it
✓ Category Details											^
Process Category Internal System E0	D						Category Status Fresh Start				
• Job Type GROUP 🗸							Process Date Jul 21, 2017				
• Job Code BRN_GRP_1							Next Process Date Jul 24, 2017				
Category Start Time							Category End Time				- 11
Polling Interval							Last Refreshed Time 03-Apr-2018 12:03:09				
A Process								G	Restart	Start Re	cover
▲ Shell Details											Ģ
Clear All Filters											
View 👻 💯 Export To Excel 📴 🚟 Detach						G	}				
	· ·										
Name of Shell	Status Tren	d Duration	No of Aborts	Throughput	Total Records	Status	Expected Completion Time				
Lending Account Statistics Shell	Not Started Tren	00:00:00									^
Account Action Internal EOD Shell	Not Started Tren	d 00:00:00									
											~

- 3. Verify the **Process Date** and the **Next Process Date**.
- 4. Click the **Start** button to begin the execution. Once the process starts the **Category Status** and the **Shell State** of currently running process display *In Progress.*

								Fast Path/Screen Name Q	∎ ★ •	Posting Date Jul 24, 2017	t3010 -	
f EOD10 ×												
End of Day										Print Z	Clear	🗙 E <u>x</u> it
✓ Category Details			Info	rmation		3	ĸ					^
* Process Category Internal System	OD 🗸		The catego	ry has starte	d. Logging Level	= WARNING		Category Status Fresh Start				
* Job Type GROUP 🗸						ОК		Process Date Jul 21, 2017				
* Job Code BRN_GRP_1								Next Process Date Jul 24, 2017				
Category Start Time								Category End Time				
Polling Interval								Last Refreshed Time 03-Apr-2018 12:04:21				
✓ Process									Q F	lestart Star	Reco	over
▲ Shell Details												Ģ
Clear All Filters												
View 👻 🎬 Export To Excel 📴 🔛 Detach	_											
	~											
Name of Shell	Status	Trend D	uration	No of Aborts	Throughput	Total Records	Status	Expected Completion Time				
Party EOD Shell	In Progress	- 0	0:00:00		0	0	0%					^
▶ Interest Shell	In Progress	- 0	0:00:00		0	0	0%					

Figure 4–10 Internal System EOD Category - Start

Figure 4–11 Internal System EOD Category - In Progress

								Fast Path/Screen Name Q	目★・	Posting Dat Jul 24, 201	e t3010	
f EOD1 <u>0</u> ×												
End of Day										Print	🖅 Clear	🗙 E <u>x</u> it
✓ Category Details												^
Process Category Internal System E	v do							Category Status In Progress				
• Job Type GROUP 💙								Process Date Jul 21, 2017				
* Job Code BRN_GRP_1								Next Process Date Jul 24, 2017				
Category Start Time 03-Apr-2018 12:04	21							Category End Time				
Polling Interval								Last Refreshed Time 03-Apr-2018 12:04:33				
⊿ Process									¢	Restart St	art Rec	over
▲ Shell Details												Ģ
Clear All Filters												
View 👻 🏂 Export To Excel 📴 🔛 Detach												
	~											
Name of Shell	Status	Trend	Duration	No of Aborts	Throughput	Total Records	Status	Expected Completion Time				
> Interest Shell	In Progress	Ş	00:00:12		26.03	94	0%	03-Apr-2018 08:04:33				î
Accounting batch Verification Shell	Not Started	Trend	00:00:00			-	-					

5. On completion of the category, the **Category Status** and the **Shell State** of all the processes display *Completed.*

Figure 4–12 Internal System EOD Category - Complete

≡ (DRACLE®									(Fast Path/Screen Name 🔍 🗏 🛧 - Posting Date 3010 -	
<u>*</u> E	DD1 <u>0</u> ×										_
End	of Day									Print 🗷 Clear 💥	Exit
⊿ Ca	tegory Details										^
	* Process Category	Internal System EOE	~							Category Status Completed	Ш
	* Job Type	GROUP 🗸								Process Date Jul 21, 2017	Ш
	* Job Code	BRN_GRP_1 ~								Next Process Date Jul 24, 2017	Ш
	Category Start Time	03-Apr-2018 12:04:21								Category End Time 03-Apr-2018 12:05:33	Ш
	Polling Interval	~								Last Refreshed Time 03-Apr-2018 12:05:33	Ш
Pr	ocess									Q Restart Start Recover	
⊿ Sh	ell Details									Q	
Clear	All Filters										
View	r 👻 🎵 Export To Excel 🛛 🕞 Detach										
			~								
	Name of Shell		Status	Trend	Duration	No of Aborts	Throughput	Total Records	Status	Expected Completion Time	
+	Account Action Internal EOD Shell		Complete	-	00:00:00		0	0		,	•
	Interest Shell		Complete	÷	00:00:21		26	94			
•	Accounting batch Verification Shell		Complete	-	00-00-02		n	n			~

4.1.6 Beginning of Day (BOD) Category Execution

This category performs the tasks required for opening a business day in a bank. For example, standing instruction, sweepout instruction, loan account charging, periodic repayment instruction execution, period fee charging, and report generation. Each task or transaction is performed by a shell in a predefined dependency and sequence.

To execute the Beginning of Day category:

1. Select the relevant Category Details as shown in the table below:

Process Category	Beginning of Day
Job Type	GROUP
Job Code	BRN_GRP_1

2. Click the Refresh button. The rest of the Category Details and the Process Details appear.

Here, the Shell State is Not Started.

The Category Status is Fresh Start.

Figure 4–13 BOD Category - Not Started

							Fast Path/Screen Name 🔍 🗏 🔶	Posting Date Jul 24, 2017 t3010 ~	
fi EOD1 <u>0</u> ×									
End of Day								Print 🧷 Clear 🕻	K Exit
✓ Category Details									^
* Process Category Beginning of Day	\sim						Category Status Fresh Start		11
* Job Type GROUP 🗸							Process Date Jul 24, 2017		- 11
Job Code							Next Process Date Jul 27, 2017		- 11
Category Start Time							Category End Time		-11
Polling Interval							Last Refreshed Time 03-Apr-2018 12:06:42		- 11
✓ Process							G	Restart Start Recov	ver
✓ Shell Details									9
Clear All Filters									
View = 🗊 Export To Excel 📴 🚟 Detach									
	~								
Name of Shell	Status	Trend D	Duration No o Abor	Throughput	Total Records	Status	Expected Completion Time		
Reg CC Schedule Release BOD Shell	Not Started	Trend 0	00:00:00						^
Business Transfer Periodic Execution BOD Shell	Not Started	Trend 0	00:00:00						
		-							~

- 3. Verify the **Process Date** and the **Next Process Date**.
- 4. Click the **Start** button to begin the execution.

Once the process starts the **Category Status** and the **Shell State** of currently running process display *In Progress.*

Figure 4–14 BOD Category - Started

							Fast Path/Screen Name Q	Desting Date Jul 24, 201	te 7 t3010 -	-
f EOD10 ×										
End of Day								Print	Z Clear	🗙 E <u>x</u> it
✓ Category Details		0 Info	rmation		;	×				^
Process Category Beginning of Day	\checkmark	The catego	ory has starte	d. Logging Leve	I = WARNING		Category Status Fresh Start			
* Job Type GROUP 🗸					ок		Process Date Jul 24, 2017			- 11
• Job Code BRN_GRP_1							Next Process Date Jul 27, 2017			
Category Start Time							Category End Time			
Polling Interval							Last Refreshed Time 03-Apr-2018 12:07:14			
⁴ Process								G Restart S	tart Reco	ver
▲ Shell Details										Ģ
Clear All Filters										
View 👻 🖽 Export To Excel										
	~									
Name of Shell	Status T	rend Duration	No of Aborts	Throughput	Total Records	Status	Expected Completion Time			
Business Transfer Periodic Execution BOD Shell	In Progress	O 0:00:00		0	0	0%				^
Payments Auto Credit Run BOD Shell	Not Started			0	0	0%				*
https://mum00cbi.in.oracle.com:30162/com.ofss.fc.ui.view/faces/main.i	spx#									

Figure 4–15 BOD Category - In Progress

								Fast Path/Screen Name Q	Posting Jul 24,	Date 2017 t301)
Teod10 ×											
End of Day									Prin	e Z Clear	🗙 E <u>x</u> it
✓ Category Details											^
Process Category Beginning of Day	~							Category Status In Progress			
• Job Type GROUP 🗸								Process Date Jul 24, 2017			
• Job Code BRN_GRP_1								Next Process Date Jul 27, 2017			
Category Start Time 03-Apr-2018 12:07:	14							Category End Time			
Polling Interval								Last Refreshed Time 03-Apr-2018 12:07:26			
✓ Process									Q Restart	Start R	cover
✓ Shell Details											0
Clear All Filters											
View * 🏂 Export To Excel											
	~										
Name of Shell	Status	Trend	Duration	No of Aborts	Throughput	Total Records	Status	Expected Completion Time			
Untanking Adjustment Posting	In Progress	٠	00:00:12		14.5	4	0%	03-Apr-2018 08:07:26			^
Customer Value Date BOD Shell	Complete	-	00:00:00		0	0	0%				¥

5. On completion of the category, the **Category Status** and the **Shell State** of all the processes display *Completed.*

Figure 4–16 BOD Category - Completed

								Fast Path/Screen Name Q 🗐 🛧 - Posting Date Jul 24, 2017 t3010 -	
FOD10 ×									
End of Day								Print 🧷 Clear 🗙	Exit
✓ Category Details									^
Process Category Beginning of Day	\sim							Category Status Completed	L
* Job Type GROUP 🗸								Process Date Jul 24, 2017	I.
* Job Code BRN_GRP_1 V								Next Process Date Jul 27, 2017	
Category Start Time 03-Apr-2018 12:07	7:14							Category End Time 03-Apr-2018 12:07:35	
Polling Interval V								Last Refreshed Time 03-Apr-2018 12:08:29	
✓ Process								Q Restart Start Recove	r
▲ Shell Details								c	2
Clear All Filters									
View 👻 ৃ Export To Excel 📴 🔛 Detach									
	~								
Name of Shell	Status	Trend	Duration	No of Aborts	Throughput	Total Records	Status	Expected Completion Time	
Reg CC Schedule Release BOD Shell	Complete	-	00:00:00		0	0			^
Customer Value Date BOD Shell	Complete		00:00:00		0	0			
Human Task EOD Resume Shell	Complete	-	00:00:00		0	0			v

4.1.7 Housekeeping Category Execution

This category performs the tasks such as statement generation, alert generation, exposure tracking, offset benefit calculation, and facility closure.

To execute the Housekeeping category:

1. Select the relevant Category Details as shown in the table below:

Process Category	Housekeeping
Job Type	GROUP
Job Code	BRN_GRP_1

2. Click the Refresh button. The rest of the Category Details and the Process Details appear.

Here, the Shell State is Not Started.

The Category Status is Fresh Start.

								Fast Path/Screen Name	 ٩ ٩	Posti Jul 2	ng Date 1, 2017 1301	0
TEODIQ X												
End of Day										Pr	nt 🖉 C <u>l</u> ear	🗙 E <u>x</u> it
✓ Category Details												^
* Process Category Housekeep	ing 🗸							Category Status Fresh Start				
* Job Type GROUP 🗸]							Process Date Jul 24, 2017				
* Job Code BRN_GRP	· ·							Next Process Date Jul 27, 2017				
Category Start Time								Category End Time				
Polling Interval	~							Last Refreshed Time 03-Apr-2018 12:09:14				
✓ Process										Q Restar	t Start R	ecover
▲ Shell Details												G
Clear All Filters												
View 🔻 彈 Export To Excel 📴 🔛 Detach												
	~											
Name of Shell	Status	Trend	Duration	No of Aborts	Throughput	Total Records	Status	Expected Completion Time	ß		-	-
Facility Auto Closure Shell	Not Started	Trend	00:00:00									^
Accounting Event History Shell	Not Started	Trend	00:00:00									
												~

- 3. Verify the Process Date and the Next Process Date.
- 4. Click the **Start** button to begin the execution.

Once the process starts the **Category Status** and the **Shell State** of currently running process display *In Progress.*

Figure 4–18 Housekeeping Category - In Progress

								Fast Path/Screen Name 9	🗏 🛧 - 🖁	osting Date I 24, 2017 t30	10 - 🚥
FOD10 ×											
End of Day										Print Z Clea	ar 🗙 E <u>x</u> it
✓ Category Details											^
Process Category Housekeeping	~							Category Status In Progress			
* Job Type GROUP 🗸								Process Date Jul 24, 2017			
Job Code BRN_GRP_1								Next Process Date Jul 27, 2017			
Category Start Time 03-Apr-2018 12:1	0:03							Category End Time			
Polling Interval								Last Refreshed Time 03-Apr-2018 12:10:16			- 1
▲ Process									Q Re	tart Start I	Recover
✓ Shell Details											Ģ
Clear All Filters											
View 👻 彈 Export To Excel 📴 📰 Detach											
	~										
Name of Shell	Status	Trend	Duration	No of Aborts	Throughput	Total Records	Status	Expected Completion Time			
Move driver table data to History table	Complete	Trend	00:00:00		-		0%				^
Accounting Event History Shell	Complete	Trend	00:00:00		-	-	0%				¥

5. On completion of the category, the **Category Status** and the **Shell State** of all the processes display *Completed.*

Figure 4–19 Housekeeping Category - Completed

							Fast Path/Screen Name Q	Posting Date Jul 24, 2017 t301)
f EOD10 ×									
End of Day								Print 🧷 Clear	🗙 E <u>x</u> it
✓ Category Details									^
Process Category Housekeeping	~	र्ष					Category Status Completed		
* Job Type GROUP 🗸							Process Date Jul 24, 2017		
* Job Code BRN_GRP_1							Next Process Date Jul 27, 2017		
Category Start Time 03-Apr-2018 12:10:	03						Category End Time 03-Apr-2018 12:22:49		
Polling Interval							Last Refreshed Time 03-Apr-2018 12:22:49		
Process								Q Restart Start R	ecover
▲ Shell Details									Ģ
Clear All Filters									
View 👻 ৃ Export To Excel 📴 📓 Detach									
	~								
Name of Shell	Status Tre	end Duration	No of Aborts	Throughput	Total Records	Status	Expected Completion Time		
Move driver table data to History table	Complete -	• 00:00:00		0	0				^
Accounting Event History Shell	Complete =	00:00:00		0	0				
									~

4.1.8 Alert Generation Category Execution

This category is used to generate previously logged alerts.

To execute the Alert Generation category:

1. Select the relevant Category Details as shown in the table below:

Process Category	Alerts Generation
Job Type	GROUP
Job Code	BRN_GRP_1

2. Click the Refresh button. The rest of the Category Details and the Process Details appear.

Here, the Shell State is Not Started.

The Category Status is Fresh Start.

Figure 4–20 Alert	Generation	Category	- Not Started
-------------------	------------	----------	---------------

							Fast Path/Screen Name Q	E 🛧 - Posting Date Jul 24, 2017 13010 - 🚥
f EOD10 ×								
End of Day								Print 🧷 Clear 🗙 Exit
✓ Category Details								^
* Process Category Alert Generation	~						Category Status Fresh Start	
• Job Type GROUP 🗸							Process Date Jan 1, 2016	
Sob Code BRN_GRP_1							Next Process Date Jan 4, 2016	
Category Start Time							Category End Time	
Polling Interval							Last Refreshed Time 03-Apr-2018 12:23:24	
Process								Restart Start Recover
∡ Shell Details								Ģ
Clear All Filters								
View 👻 📅 Export To Excel 📴 🛒 Detach								
	Y							
Name of Shell	Status Trend	Duration	No of Aborts	Throughput	Total Records	Status	Expected Completion Time	
Alert generation Shell	Not Started Trend	00:00:00						
								*

- 3. Verify the Process Date and the Next Process Date.
- 4. Click the **Start** button to begin the execution.

Once the process starts the **Category Status** and the **Shell State** of currently running process display *In Progress.*

Figure 4–21 Alert Generation Category - In Progress

								Fast Path/Screen Name Q	★ ° Po	sting Date 24, 2017	13010 -	
f EOD10 ×												
End of Day										Print 🗷 (lear 🗙	(E <u>x</u> it
✓ Category Details												^
* Process Category Alert Generation 🗸							Category Status In Progress					
* Job Tippe GROUP V Process Date Jan 1,2016							Process Date Jan 1, 2016					
* Job Code BRN_GRP_1								Next Process Date Jan 4, 2016				
Category Start Time 03-Apr-2018 12:23:	51							Category End Time				
Polling Interval								Last Refreshed Time 03-Apr-2018 12:24:00				
' ⊿ Process									Q. Res	tart Start	Recove	er
∡ Shell Details											(Э
Clear All Filters												
View 👻 彈 Export To Excel 📴 📰 Detach												
	~											
Name of Shell	Status	Trend	Duration	No of Aborts	Throughput	Total Records	Status	Expected Completion Time				
Alert generation Shell	In Progress	-	00:00:09		276.32	84	0%	03-Apr-2018 08:24:00				
▲ Alert generation Shell Shell Details	ov#											¥

5. On completion of the category, the **Category Status** and the **Shell State** of all the processes display *Completed.*

								Fast Path/Screen Name 🔍 🗏 📩	Posting Date Jul 24, 2017 t3010 -	
fodi <u>o</u> ×										
End of Day									Print 🥂 Clear 🗙	Exit
✓ Category Details										^
Process Category Alert Generation	~			6				Category Status Completed		L
Job Type GROUP								Process Date Jan 1, 2016		
* Job Code BRN_GRP_1								Next Process Date Jan 4, 2016		
Category Start Time 03-Apr-2018 12:23:	51							Category End Time 03-Apr-2018 12:24:11		
Polling Interval								Last Refreshed Time 03-Apr-2018 12:24:58		
⊿ Process									Q Restart Start Recove	f
✓ Shell Details									c	э
Clear All Filters										
View 👻 🍱 Export To Excel 📴 🚟 Detach										
	~									
Name of Shell	Status	Trend	Duration	No of Aborts	Throughput	Total Records	Status	Expected Completion Time		
Alert generation Shell	Complete	-	00:00:20		276	84				
nttps://mum00cbi.in.oracle.com:30162/com.ofss.fc.ui.view/faces/main.j	px#		-							~

4.2 Batch Exception Recovery

Batch Exception Recovery refers to mechanism to allow support and business users perform actions on the records that were skipped during batch execution. During batch execution, if the number of failures due to business exception is less than pre-configured threshold, such records are skipped for future processing.

The batch exception recovery can be done using the Batch Exception Recovery (Fast Path: OPA007) page. It is recommended that user in support or operations role, checks this page after every batch processing is completed for any PENDING records.

This section explains the steps involved in Batch Exception Recovery.

Batch exception recovery actions can be broadly classified in two categories:

- Actions for Support/Operations user (Performed on Batch Exception Recovery page)
- Actions for Business user (Viewed in worklist application and actioned using OBP screens, data patches.)

In its entire life cycle, the batch exception record will go through the above mentioned actions starting with PENDING and ending with either IGNORED or REPROCESSED. Support or Operations user acts on exception record using the Batch Exception Recovery page.

To navigate to the Batch Exception Recovery page:

- 1. Log in to the Admin application.
- Navigate to Batch Exception Recovery page either by entering the Fast Path OPA007 or through the menu Administration > Batch Exception Recovery.
- 3. Select the relevant Category Details as shown in the following table:

Branch Group Code	BRN_GRP_1
Category	End of Day

4. Click OK. The Exception Details appear.

Figure 4–22 Exception Details

	Oracle Banking Platform		•	_	A second		1.000	-	1		100	-	and Real		m 2 5			
 A trajectió 	10804394002/com	fathcui view face	cimain (opel, philo	op-192200429	0.008,,#111-0	unhole (A.J.A	Windowid-nullå,	pti al-anto des	p674y,2			17	V C 🖬 • Gog	pir			1	0-4
KING PLATFORM	Posting Date 1	91-34-2026												i •	8.4	• •	OFSSU	H .
			Account •	Back Office 🔻	CASA •	Collection •	OreRCard •	Insurance •	LON .	Loan 🕶	Origination •	Party •	Payment And Col	lection +	Term Depos	• 5	Fachab	
084007																		
atch Except	son Recovery															12.00		
																34.11	- - Qe	r 0 04
# Batch Det	ails																	
	• •	and Source Finds	001 000 1									there a	atalian 🖂					
		and unity cost	000,000,0	10								and of the	and N					~
																		~
	F	ilterto sh	owreproc	essed rec	cords													
# Exception	- Details	ilterto sh	owreproc	essed rec	cords													
A Exception	F Details	iller to sh	owreproc	essedre	cords		Cur	rent state	ofexcep	tion r	ecord							
.4 Exception	Details	iller to sh	оwтергос	essed rec	cords		Cur	rent state	of excep	tion r	ecord							
A Exception	e Details	itter to sh	owreproc	essed rec	cords		Cui	rent state	of excep	tion r	ecord							
√ Exception	e Details	itter to sh	owreproc	essedre	cords	0	Cui	rent state	of excep	tion r	ecord							
A Exception	Details	et Racorda	ow reproc	essed ree	cords Energy	Dept	Cu	rent state	of excep	tion r	ecord							
A Exception 2 Export To Ex Extension Delegory Ind of Day	Details	eRacords	Errar Code 2175	unit in the second seco	Energy Energy	Desi A	Cur dan	rent state	of excep	tion P	ecord							
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5. Select an exception record. The additional details such as Stack Trace and Comments appear. One of the important attributes is Recommended Action for the operator.

Figure 4–23 Exception Record Details

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6. Check the Stack Trace and Comments. It is recommended that if the current action on an exception record is PENDING and there are no Comments, click Assign to create a task for business user to take appropriate corrective actions on the exception record. Also, look for the Recommended Action. By looking at the Stack Trace, if the support or operator users find a similar previous incident, they can capture the same in the Incident Number field as shown in the above figure.

Note

It is mandatory to capture valid meaningful Comments while performing any action on the exception record.

Business user acts on exception record using the Worklist Application

To navigate to the Worklist page:

- 1. Log in to Worklist application.
- 2. All the exception records with action as ASSIGNED will appear as a task in the worklist. Select the task to act on.

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Figure 4–24 Exception record in Worklist application

- 3. Click Claim to claim the task.
- 4. Check the Stack Trace, Batch Data, Incident Number and Comments.
- 5. Perform appropriate actions using application screens, data patches.
- 6. Capture comments in Comments section. These comments will be used by the support user to further act on the exception record.
- 7. Select the mandatory Recommended Action for the support or operator user.
- 8. Click Done to complete the task. The exception record moves into PENDING state and will be visible to the support user to take further action.

Note

It is mandatory to capture valid meaningful Comments while performing any action on the exception record.

5 Setting Up The Bank And Branch

This chapter provides the process of setting up the bank and the branch commonly referred to as the Day 0 setups.

5.1 Common Services Day 0 Setup

The Common Services setup includes the following sections.

5.1.1 Core Maintenances

Core Entity Services seek to define the broad parameters within which the rest of the application functions. The service defines the bank, the various modules of the application that the bank may want to introduce, the languages and the time zones it operates in, the core parameters and structures of its various branches. The core entity services are also used by each of the different modules, and provide a variety of support functions to them.

The following Core Maintenances must be completed as a part of bank and branch setup:

- Bank Codes (Fast path: CS01)
- Business Group (Fast path: CS02)
- Bank Parameters (Fast path: CS03)
- Branch Parameters (Fast path: CS06)
- Country Codes (Fast path: CS09)
- Financial Cycle (Fast path: CS10)
- Reason Codes (Fast path: CS16)
- State Codes (Fast path: CS17)
- Bank Policy (Fast path: CS26)
- Bank Policy Deviation Definition (Fast path: CS39)
- Questionnaire Maintenance (Fast Path: CS103)
- Section Maintenance (Fast Path: 104)

Note

To view the detailed procedure for each application page, see its context sensitive help in the application.

5.1.1.1 Head Office Setup

The Head Office branch creation is currently being done via seed data where the Branch Type is HO. Branch Type is a seed table with fixed values for all applicable branch types, that is uploaded to the application from the backend. After the creation of Head Office branch through seed data, you can proceed to create other branches from the application where the Branch Type is shown as a LOV (excluding HO).

The process to set up a head office branch is as follows:

- 1. Create a new bank code in the application through the page Bank Codes (Fast path: CS01).
- 2. Set up the new bank parameters through the page Bank Parameters (Fast path: CS03).
- 3. Modify the seed data for Branch Type to include the new bank code as HO and run the seed. Currently the seed will be for Bank Code 08. The head office branch is created via this seed data.
- 4. Proceed to create the other branches through the application using the page **Branch Parameters (Fast Path: CS06)**, that includes all branch types other than HO.

Note

To view the detailed procedure for each application page, see its context-sensitive help in the application.

5.1.2 Currency Maintenances

The Currency Services are a part of the common services of Oracle Banking Platform and serve to record and retrieve the various currency related information.

The following Currency Maintenances must be completed as a part of bank and branch setup:

- Currency Codes (Fast path: CY01)
- Amount Text (Fast path: CY02)
- Currency Pairs (Fast path: CY03)
- Currency Branch Parameters (Fast path: CY04)
- Currency Denomination (Fast path: CY05)
- Currency Rate Types (Fast path: CY06)
- Exchange Rates (Fast path: CY07)

Note

To view the detailed procedure for each application page, see its context-sensitive help in the application.

5.1.3 Calendar Maintenances

The calendar services are embedded in the common services and serve to record and retrieve the various holidays of the bank in a calendar year.

The following Calendar Maintenances must be completed as a part of bank and branch setup:

- Holiday Rule Maintenance (Fast Path: CAL01)
- Calendar Type Maintenance (Fast Path: CAL02)
- Adhoc Calendar Maintenance (Fast path: CAL03)

Note

To view the detailed procedure for each application page, see its context-sensitive help in the application.

5.2 Other Setups

Following are the required setups:

- Alert Subscription (Fast Path: AL05)
- Alert Support (Fast Path: AL10)
- Message Template (Fast Path: AL03)
- Alert Maintenance (Fast Path: AL04)
- Risk Indicators Impact Cross-Reference (Fast Path: ACCT010)
- Document Inserts(Fast Path: CNM11)
- Document Type Definition (Fast Path: CNM01)
- Document Template Resolution Policy (Fast Path: CNM09)
- Document Search And Upload (Fast Path: CNM06)
- Document Category Definition (Fast Path: CNM02)
- Document Policy Definition (Fast Path: CNM03)
- Work Item Inquiry (Fast Path: WL001)
- Artifact Dependency Map (Fast Path: SM500)
- Policy Management (Fast Path: SM502)
- Rule Author (Fast Path: RL001)
- RuleSet (Fast Path: RULE01)
- Rule Search (Fast Path : RL003)
- Filter Definition (Fast Path: RL005)
- Expression Builder (Fast Path: RL004)
- Rule Simulator (Fast Path: RL002)

Note

To view the detailed procedure for each application page, see its context-sensitive help in the application.

6 Application Monitoring Using Administration Application

This chapter provides an overview on the various monitoring operations performed as an administrator using Administration application.

6.1 Dynamic Monitoring Service (DMS)

The aim is to monitor different channels involved in performing transactions with OBPM. The monitoring parameters consists of channels, services, trends (current behavior of execution), and time metrices. The monitoring is performed by DMS (Dynamic Monitoring Service).

What is DMS?

The Oracle Dynamic Monitoring Service (DMS) provides a set of Java APIs that measure and report performance metrics, trace performance and provide a context correlation service for Fusion Middleware and other Oracle products. Along with the APIs, DMS provides interfaces to enable application developers, support analysts, system administrators, and others to measure application-specific performance information.

6.1.1 Usage

The usage of DMS is defined by the role of the user. Based on their roles, users can either take part in configuration of services for DMS or monitor the statistics collected via DMS.

Developers

These are the set of people who configure the monitoring services that are the part of OBPM system. The configuration can be made either for available services or for new services.



Figure 6–1 Developers

IT Technical Staff

This consists of set of people who monitor the DMS statistics generated for the service. With the help of various metrics generated they can analyze the behaviour of the target service. For example, 'time taken to execute' service could indicate need of optimization of the service.

Figure 6–2 IT Technical Staff



6.1.2 Monitoring Application using the OPA001 page

Once DMS statistics are captured for a particular channel and transactions involving it, it requires a UI representation to understand the statistics in a readable form so that one can analyse the behaviour. The monitoring activities are mainly carried out by IT Technical staff.

6.1.2.1 Monitoring Application Performance (Fast path: OPA001)

This page gives the monitoring statistics of different channels and the transactions occurring through it. It gives the time metric of the transactions, trend of the current transactions, and alert for the channel.

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The overall page can be subdivided in to 3 sub parts on the basis of information they provide:

6.1.2.1.1 Application Performance Summary

This section gives the information about the different channels of OBPM through which transactions are taking place. The information is about the health and active channels. The Refresh Button on top of this section gets the latest (refreshed) metrics.

Figure 6–4 Application Performance Summary

∡ Application Performance Summary	Page Retreshed 27-May-2015 11-40-12	AM GMT+05:30 🙀
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Following are the few notification about the channels:

- Denotes transactions not present for the channel
- Denotes normal status that is, the number of alerts are less than the specified limit
- Denotes warning status that is, the number of alerts are in the warning range
- Denotes critical status that is, number of alerts exceeds the limit

6.1.2.1.2 Log Level

This section gives logger level information for the host and UI server.

Figure 6–5 Log Level

J Log Level UI: Host:

6.1.2.1.3 Application Performance

This section gives the metrics for the transaction. Metrics include timing, alert, trending information. Certain filters can be applied over the metric table. Initially only 100 (Initial page size which is configurable) transactions are displayed. To display all the transactions, click the ALL button.

Trend

Indicates trending of execution timings of transaction. It is calculated by algorithm namely, Exponential Moving Average where if the execution time goes above the specified limit which is calculated by adding average execution time of the transaction and allowed limit (varies logarithmically to execution time); the transaction is considered as trending upwards and vice-versa for downwards trend.

However, if the execution time is with the range, trend is considered as neutral.

Alert

Indicates alerting state of the transaction. A transaction is given weight based on its properties namely, transaction type, timing category and module. The weight gives the offset allowed for transaction execution time. If the current transaction time is greater than average transaction time + offset, it is marked as alert. Initially it is marked as 'Critical' and after sometime the state is marked as 'Warning'.

Figure 6–6 Alert State

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•	Branch	ORIGINATION	Spi	Perform Auto Decision			27-May-2015 11:39:37	4147, 5047, 3252, 3984,	arun	4,563	6,463	2,880	38,501	8	0			6,457	NA ffa7b029b61303	CreditDecisionAppl
b 7	Branch	TD	Backing Bean	Mixed Payin _ U	TD002		27-May-2015 10:48:53	881, 938, 2143, 2616, 6818	•	4,155	19,078	881	58,167	14	0			0,810	NA 9dfdeddo72dae	backing.MxedPayi
	Branch	PARTY	Spi	Add Or Update Party Financial Profile	•	٠	27-May-2015 11:39:21	6739, 2380, 1740, 758, 1	arun	3.993	11,972	758	35,938	9	0	-	-	11,972	NA ffa7b029b61303	PartyFinancialProfi
<u>د</u> ا	Branch	CASA	Backing Bean	Alternate Accounts Save _ UI	CASA037		27-May-2015 10:39:16	465, 2720		1,593	2,720	405	3,185	2	0			2,720	NA 9dfdeddo72dae	AlternateAccounts
	Branch	ACCOUNT	Spi	Recommend Bundles	VIL000	٠	27-May-2015 11:38:01	424, 901, 399, 1103, 1927	arun	1,528	10,281	308	56,535	37	0			1,927	NA 9dfdeddo72dae	BundleRecommend
L (Branch	CONTENT	Spi	Deliver And Save Documents	OR247	٠	27-May-2015 10:38:39	1308, 1359, 1420, 1303,	asavant	1,515	2,339	1,303	10,602	7	2			2,339	NA 9d35654d4414a	OutboundDocumen
b 1	Branch	ORIGINATION	Spi	Submit Create Offer	OR223	٠	27-May-2015 10:40:22	1025, 1271, 1170, 1288,	asavant	1,382	2,008	972	9,537	7	0			2,008	NA 9d35654d4414a	LendingOfferApplic
	Iranch	ORIGINATION	Spi	Execute Policies And Create Linkages	•	٠	27-May-2015 11:39:40	1398, 1421, 1025, 748, 2	arun	1,352	2.320	748	10.817	8	0	-		2.320	NA ffa7b029b61303	CreditDecisionAppl
	Franch	ORIGINATION	Spi	Construct Offer Document Linkage DTO	OR247		27-May-2015 10:38:40	1010, 1070, 926, 886, 1294	asavant	1,002	1,294	820	7,015	7	0			1,294	NA 9d35554d4414a	LendingOfferApplic
A 1																		0.004		

The table below explains each column of the table present in the given snapshot.

	Ta	ble	6–1	Aler	t State
--	----	-----	-----	------	---------

Sr. no.	Column Name	Description
1	Alert	Alert state of the transaction Valid Values: BLANK: No alert, Warning: Alert in past (default 5 minutes), Critical: Alerted Transaction
2	Channel	Channel through which the transaction occurred Valid Values: Branch, ATM, and POS.
3	Module	Application module of which transaction is a part
4	Layer	Configured Noun generation layer. Backing Bean for UI and Spi and App Service for Host.
5	Transaction	Name of the transaction
6	Task Code	Task code of the application page by which the transaction was triggered
7	Trend	Trending of transaction Valid Values: Upwards, Downwards, Neutral
8	Alert Event Time	Time at which last alert occurred for the transaction
9	Trend Reference Queue	Execution time of last n transactions (n=5)
10	Last Alert User	Teller who performed the last alerted transaction
11	Average Time	Average execution time
12	Max Time	Maximum time of execution of the transaction

Sr. no.	Column Name	Description
13	Min Time	Minimum time of execution of the transaction
14	Total Time	Total time of execution
15	Success Count	Number of times transaction executed successfully
16	Failure Count	Number of times transaction failed.
17	Debit Amount	Amount debited after transaction
18	Credit Amount	Amount credited after transaction
19	Trend Reference	Execution time of last transaction
20	Nested Status	Nested Status
21	Alert ECID	ECID of the last alerted transaction
22	Service	Service name of the transaction
23	Completed Operations	Number of completed transactions
24	Active Threads	Active Threads
25	Max Active Threads	Maximum active threads
26	Host	Host name
27	Process	Process Name
28	Server Name	Server name
29	App Root Type	Root type of noun
30	Failure Security Event	Failure due to security error
31	2FA Event	Authentication error
32	Failure Database Event	Failure due to database error
33	Failure Technical Event	Failure due to technical error
34	Failure Outbound Event	Failure due to outbound call (call outside OBPM)

One can select any of the task code which opens a popup with information about that task code only.

Figure 6–7 Select Task Code

NG PL		Posting Date	e 31-Aug	-2016									i	• × \$	• * ·	amrit	•
	Account 👻	Back Office	CA	.SA 👻	Collection 👻 Co	redit Card 👻 Ins	surance 👻 LCM	▼ Loa	n 🕶 🛛 (Drigination	Party	▼ Pa	ayment And Collection 👻	Term Deposit 🔻	Fast	Path	
. [OPA001	-												_			
	OFA <u>0</u> 01 X												>	۰ – – – – – – – – – – – – – – – – – – –			
onito	or Applicat	tion Performanc	e	OR22	3												
																Print 🗎	🛛 Exit
				View 🔻	🕎 📄 Deta	ach											
				Channel	Module	Layer	Transaction	Average	Max	Min	Success	Failure	Trend Reference Queue				
				Branch	ORIGINATION	Spi	Submit Create Offer	1,362	2,006	972	7	0	1025, 1271, 1170, 1288, 2	Time in I	millisecond	s	
lert	Channel	Module	Layer	Branch	ORIGINATION	Spi	Inquire Detailed Application	603	3,891	332	27	0	383, 343, 333, 618, 3891	e Max	Min	Total	Si
1	Branch	ORIGINATION	Spi	Branch	ORIGINATION	Spi	Fetch Application	319	860	206	25	0	206, 375, 307, 320, 525	3,891	332	16,270	27 *
2	Branch	SMS	App Se				Approval Data							1,523	146	16,796	31
1	Branch	PRICING	Spi	Branch	ORIGINATION	Spi	Documents	148	701	39	27	0	63, 145, 169, 306, 701	893	140	1,033	2
1	Branch	ORIGINATION	Spi	Branch	ORIGINATION	Spi	Fetch Offer Expiry For Application	112	249	74	13	0	100, 96, 84, 81, 249	860	206	7,980	25
•	Branch	WORKLIST	Spi	Branch	COMMON	Spi	Fetch State	45	256	23	137	0	157, 79, 243, 256, 106	711	59	7,974	3€
•	Branch	WORKLIST	Spi	4									•	698	19	5,503	35
)	Branch	ORIGINATION	Spi											562	51	1,215	8
7	Branch	ORIGINATION	Spi										OK Cance	701	39	3,988	27
Ð	Branch	ORIGINATION	Spi										OK Calice	587	64	1,175	8
	Branch	ORIGINATION	Spi		Fetch Offer Expiry	For Application	OR223	27-1	1ay-2015 1	0:39:28 1	00, 96, 84, 8	1, 249	asavant 112	249	74	1,450	15 -

Detailed Transaction View

This section gives the detailed view of a selected transaction. The desired transaction can be selected from the table (metric table). Click on any row to display a detailed view of the transaction.

Figure 6–8 Selection of Desired Transaction

	Monitor Application Performance														
													🚔 Print	🛛 Exit	
	▲ Inquire Detailed Application (Spi ORIG	INATION OR	223)											^	
		erver Name	Trend	Trend Reference Queue	Last Alert Liser	Average	Max	Min	Active	Transac	tion Count]			
			Trend		Cast Fren Oser	Arenage	max		Threads	Success	Failure]			
		ost_Server	•	383, 343, 333, 618, 3891	asavant	603	3,891	332	0	27	0				
											,				
ł	Transaction Details					⊿ Tra	nsaction Metric	:5						^	
	Chann	el BRN				1			Average 60	3					
	Task Coo	de OR223							Max 3,8	91					
	Servic	e BaseApplic	ationService	eSpi.inquireDetailedApplicatio	n				Min 33	2				- 11	
	Transactio	on Inquire Det	ailed Applica	ation					Success 27						
	Alert and Trend Details					.∡ Fai	lure Events								
	Last Alert U	ser asavant						Failure Securi	ity Event 0						
	Alert Event Ti	me 27-May-20	015 10:39:26					2F	A Event 0					11	
	Trend Reference Que	eue 383. 343.	333. 618. 38	391			F	ailure Databa	se Event 0					×	

Figure 6–9 Transaction Details

Transaction Details	
Channel	BRN
Task Code	OR223
Service	BaseApplicationServiceSpi.inquireDetailedApplication
Transaction	Inquire Detailed Application
App Root Type	Transaction
App Root Type Host	Transaction ofss3121059.in.oracle.com
App Root Type Host Server Name	Transaction ofss3121059.in.oracle.com Host_Server
App Root Type Host Server Name Process	Transaction ofss3121059.in.oracle.com Host_Server obphost_server1:8001

Figure 6–10 Transaction Metrics

Transaction Metrics	
Average	603
Max	< 3,891
Mir	332
Success	\$ 27
Success 27	
Failure 0	
Active Threads 0	
Max Active Threads 1	

Figure 6–11 Alert and Trend Details

▲ Alert and Trend Details	
Last Alert User	asavant
Alert Event Time	27-May-2015 10:39:26
Trend Reference Queue	383, 343, 333, 618, 3891
Alert ECID	9d35654d4414a931:-6e0ab1f:14d8b6681e1:-8000-00000000000d612

Figure 6–12 Failure Events

Failure Events	
Failure Security Event	0
2FA Event	0
Failure Database Event	0
Failure Technical Event	0
Failure Outbound Event	0

Configurations

The below mentioned configurations can be made in DMSConfig.properties:

- Channel Status: Number of alerts for which the channel shows 'Critical and 'Warning' status can be configured
- Alert Status: The time after which a 'Critical' alert changes to 'Warning' is configurable
- Initial Page Size: Every time host data is fetched only rows equal to page size are displayed. The
 page size is configurable

These configurations can be made in DMSConfig.properties.

6.2 Batch Performance Monitoring

Most of the enterprise applications would require bulk processing of records to perform business operations in real time environments. These business operations include complex processing of large volumes of information that is most efficiently processed with minimal or no user interaction. Such operations would typically include time based events (for example, month-end calculations, notices or correspondence), periodic application of complex business rules processed repetitively across very large data sets (for example, rate adjustments). Batch monitoring includes monitoring of all such batch processes. These batch processes generate huge statistics, which needs to be monitored in order to understand and improve its performance. OPA003 page is used to monitor these processes in detail along various metrices like duration, throughput, aborts, and so on.

6.2.1 Use Cases

The overall use cases for the whole Batch monitoring operation are divided into two units on the basis of actor that works over batch monitoring operations. The different actors along with their use cases are as below:

Developers

These are the set of people who configure the monitoring services that are the part of OBPM system. The configuration can be made in the properties file BatchStatistics.properties. Configuration include the number of previous batch runs to be considered for calculation for monitored metrics.





IT Technical Staff

This consists of set of people who monitor the Batch statistics generated during the batch run.

Figure 6–14 IT Technical Staff



Figure 6–15 IT Technical Staff - Monitor Batch Stats



6.2.2 Monitoring Batch Performance Using OPA003 page

Once batch starts it needs UI representation to easily understand and interpret the batch stats. By monitoring these stats, one can understand the bottle necks of the batch process and hence can work in a way to improve batch performance.

6.2.2.1 Monitor Batch Performance (Fast path: OPA003)

This page takes category, job code, job type, and processing date as input and provides monitoring stats for shells running for selected category.

Figure 6–16 Batch Performance Monitoring

OPA <u>0</u> 03 ×							
Monitor Batch Performan	ce						
					🚔 Print 🧹	ok 🍫 c	jear 🔣 Ex
			R	efresh Time 01-Jun	-2015 10:06:48	AM GMT+0	5:30 🚱
						Auto Refresh	•
S	elect Category Beginning of Day 🔻		Job Type	GROUP			
• Pr	ocessing Date 31-Mar-2017 😨 🔯		Job Code	BRN_GRP_1			
				Adhoc Gene	rate and Vie	w	
					Generate	Document	View
							Document
(Datab Guaran							
a Baten summary							
Category Name	BEGINING OF DAY	Start Time 29 May 2015 14:05:37		Wait Time	00:20:20		
Status	COMPLETE	End Time 29 May 2015 14:44:06		Execution Time	00:18:09		
# of Aborts	2			Time Taken	00:38:29		

Figure 6–17 Batch Performance Monitoring - Shell Details

⊿ S	▲ Sheil Details									
Clea	Clear All Filters									
view		•								
	Name of Shell	State	Trend	Duration	No of Aborts	Throughput	Total Records	Status	Expected Completion Time	
►	DDA Standing Instruction BOD Shell	Complete		00:00:04		0	0			^
•	DDA Sweepout Instruction BOD Shell Default L	Complete	-	00:00:00		0	0			
►	DDA Sweepout Instruction BOD Shell Non Defa	Complete	-	00:00:00		0	0			
•	Account Settlement Payout BOD Shell	Complete	4	00:00:00		0	0			
•	Split Loan Account Opening BOD Shell	Complete	Ş	00:00:20		7776	1			
+	Loan Action due BOD shell	Complete	÷	00:28:35	1	1180	508			
•	Loan Post Action due BOD shell	Complete	-	00:00:02		0	0			
•	CASA BOD Reports	Complete	-	00:00:00		0	0			



Figure 6–18 Batch Performance Monitoring - Relative Performance Summary

The batch statistics are monitored at different levels as follows:

- Category Level
- Shell Level
- Record level

Category Details

The parameter monitored at category level as given as below:

Attribute Name	Description
Category Name	Name of category for example, EOD (End Of Day)
Status	Indicates status of selected category. Valid Values: COMPLETE, RUNNING, ABORTED.
Start Time	Indicates start time of category. The time is represented in DD-MM-YYYY hh:mm:ss format.
End Time	Indicates end time of category. The time is represented in DD-MM-YYYY hh:mm:ss format.

Table 6–2 Category Details

Attribute Name	Description				
Wait Time	It is the time for which category is in Aborted state. Wait time for category denotes the time for which batch was halted.				
Execution Time	It the time for which category is in Running state.				
Number Of Aborts	Indicates number of times category was aborted.				
Total Time	It is the total time taken by category to complete. Time taken for category is summation of wait and execution time.				
Estimated Completion Time	It is the predicted time for category completion. This time is calculated based on number of incomplete and pending shells for the current running category. The averaged value of previous run duration is considered for calculating estimated time. Similar calculation is done for estimating completion time for shell. This attribute is displayed only during batch run. It is not displayed once batch is complete				
Time Status	The status of category (that is, delayed or early) denotes whether category is running slow or fast. This value is calculated based on average of historical data. This attribute is displayed only during batch run. It is not displayed once batch is complete				

Shell Details

This level displays statistics of all shells corresponding to selected category. The parameters monitored at shell level are given below:

Attribute Name	Description
Name of shell	Represents name of shell
Trend	Valid Values: UPWARD, DOWNWARD, NEUTRAL. It denotes the trend based on historical data for time required by shells to complete.
Status	Valid Values: Complete, Running, Aborted, Not Started. Indicates status of shell
Duration	It is the time required by shell to complete.
Start Time	Indicates start time of shell. The time is represented in DD-MM-YYYY hh:mm:ss format.
End Time	Indicates the time at which shell is completed. The time is represented in DD-MM-YYYY hh:mm:ss format.
Wait Time	It is the time for which shell is in aborted state.
Expected Completion Time	Indicates the estimated time for a shell to complete.
Failed Records	Number of failed records for a shell
Records Processed	Number of records processed in a shell
Number of Streams	Number of streams denote number of processes running in parallel for a shell. On proper analysis of historical data of stream count, number of records and duration for particular shell one can optimize throughput for it.

Table 6–3 Shell Details
Attribute Name	Description
Throughput	It is the average processing time for one record. Throughput is denoted in millisecs.

Figure 6–19 Shell Details

8
A

Figure 6–20 Shell Details - DDA Standing Instructions

JDA Standing Instruction BOD	Shell Details		
Module Code	DD Wait Time	Pending Time	00:00:00
Number of Streams	1 No of Aborts	commentCount	0
Start Time	2015-05-06 18:28:45 Records Processed		
End Time	2015-05-06 18:28:45 Failed Records	0	
	Shell Notes		
+ Add New Note			
No items to display			
▲ DDA Standing Instruction BOD	Shell Stream Details		
Clear All Fiters			
View 🔻 🗋 Export To Excel 📴	🔐 Detach		•

Note

Note the following:

Trend for a particular shell is decided based on comparison of time statistics (that is, current run time and historical data for previous batch runs). Number of previous batch run to be considered is configurable. It is configured in the property file that is, (BatchStatistics.properties). The trend and other estimated time seems more realistic if number of previous run days configured in property file are more. Trend gives an idea whether a particular shell is running fast or slow compared to previous runs though it is important to consider number of records being processed in that shell.

The following figure shows the view displayed during batch run. Few extra parameters like estimated completion time for shell and category are monitored during batch run.



	hell Details									ş	2
Clea	r All Filters / 👻 😥 Export To Excel 📴 🔐 Detach										
		•									
	Name of Shell	State	Trend	Duration	No of Aborts	Throughput	Total Records	Status		Expected Completion Time	
►	DDA Standing Instruction BOD Shell	Complete	-	00:00:03		0	0	0%	100%		^
►	DDA Sweepout Instruction BOD Shell Default L	Complete	-	00:00:00		0	0	0%	100%		
•	DDA Sweepout Instruction BOD Shell Non Defa	Complete	-	00:00:00		0	0	0%	100%		
÷	Account Settlement Payout BOD Shell	Complete	ē	00:00:21		238	1	0%	100%		
►	Split Loan Account Opening BOD Shell	Complete	٠	00:00:20		11,390	1	0%	100%		
►	Loan Action due BOD shell	In Progress	Ş	00:17:02		1,280.85	859	0%	100%	02-Jun-2015 14:38:00	
•	Loan Post Action due BOD shell	Not Started	-	00:00:00		0	0	0%	100%		

Comments Table

Comments Table is rendered based on row click of shell details table.

- In case of batch abort, it is important to know the reason behind abort and how that is fixed. Comments table serves this purpose as one can log the details regarding fix and reason behind shell abort. Multiple comments can be captured for particular shell.
- Also one can query historical data for comments. The historical data of comments can be used to analyse the reason behind failure of particular shell.

Stream Details Table

Stream Details table is rendered based on row click of shell details table.

Table	6-4	Stream	Details
-------	-----	--------	---------

Attribute Name	Description
Stream Number	Indicates the number of a stream in which the record is being processed
First Row	Indicates the start sequence number of a record, processing in a particular stream.
Last Row	Indicates the end sequence number of a record, processing in a particular stream.
Duration	It is the time required for stream to complete.
Status	Valid Values: COMPLETED, RUNNING. It indicates the status of selected stream
Processed Count	Number of records processed in a stream
Server Name	Name of a server running the stream

Figure 6–22 Stream Based Shells

I Loan Actio	n due BOD shell M	lotes								
+ Add New Not	•									
	Cri	ated By bhaktim	1 (USER) on 27/05/20	015 at 14:38:45					Subject patch applied	
		patch a	pplied							
	C	omment								
	Interna	to Bank 🗸								
		Stage 2								
Reply 🕨 0										
		trees Details								
⊿ Loan Actio	n due BOD shell S	tream Details								
Loan Actio Clear All Filters	n due BOD shell S	itream Details								
✓ Loan Actio	n due BOD shell S Export To Excel	tream Details								
Loan Actio	n due BOD shell S Export To Excel	Tream Details								
Loan Actio	n due BOD shell S Export To Excel	Detach	Current Row	Duration	Statue	Processed Count	Eniled Count	Server Marrie		
Loan Actio	n due BOD shell S	Detach	Current Row	Duration	Status	Processed Count	Failed Count	Server Name		
Loan Actio	n due BOD shell S Export To Excel	Detach	Current Row 1270	Duration 1,681	Status COMPLETED	Processed Count 1,266	Failed Count	Server Name obphosLserver1		
Loan Actio	n due BOD shell S Export To Excel	F Detach Last Row 1,269	Current Row 1270	Duration 1,681	Status COMPLETED	Processed Count 1,266	Failed Count	Server Name obphost_server1		
Loan Actio Clear All Filters View Stream Number 1 Loan Actio	n due BOD shell S Export To Excel First Row 1 n due BOD shell E	Tror Desc	Current Row 1270	Duration 1,681	Status COMPLETED	Processed Count 1,266	Failed Count	Server Name obphost_server1		
Loan Actio Clear All Fitters View Z Stream Number 1 Loan Actio	n due BOD shell S Export To Excel	Team Details Team Details Team Detach Last Row 1.269 Tror Desc	Current Row 1270	Duration 1,681	Status COMPLETED	Processed Count 1,266	Failed Count	Server Name obphost_server1		
Loan Actio Clear All Fitters View Z Stream Number	n due BOD shell S Export To Excel	Image: stream Details Image: stream Details	Current Row 1270	Duration 1,681	Status COMPLETED	Processed Count 1,266	Failed Count	Server Name obphost_server1		
Lean Actio	n due BOD shell S Export To Excel	Tron Desc BranchCode	Current Row 1270 BranchGroupCode	Duration 1,681	Status COMPLETED	Processed Count 1,266 SummaryText	Failed Count 0	Server Name obphost_server1		
Lean Actio	n due BOD shell S First Row 1 n due BOD shell E FroessResult 2		Current Row 1270 BranchGroupCodd BRN_GRP_1	Duration 1,681 e RunCount 6	Status COMPLETED	Processed Count 1.266 SummaryText 300340757 201	Failed Count 0	Server Name obphost_server1		
Loan Actio Clear All Filters View Constant Stream Number	n due BOD shell S Export To Excel First Row 1 n due BOD shell E ProcessResult 2 2	tream Details	Current Row 1270 BranchGroupCode BRN_GRP_1 BRN_GRP_1	Duration 1,681 e RunCount 6 6	Status COMPLETED ErrorDesc com ofss.fc.fam. com ofss.fc.fam.	Processed Count 1.266 SummaryText 300342757 201 300332595 201	Failed Count 0	Server Name obphost_server1		

Note

Shells are categorized into two types that is, Stream based shells and Report based shells. Figure 6–22 displays the view for stream based shells.

Exception Log

On row click of the driver level details, it pops up a window showing the stack trace of failed records if present. One can analyze and know the reason behind the failure of that particular record.

Figure 6–23 Exception Log

BANKING PLATFORM	Posting Date	28-Feb-2017											i •	**	🖌 👻 bhakti	m 🔻
		Account 🔻	Back Office 🔻	CASA 🔻	Collection v	Credit Card 🔻	Insurance 🔻	LCM 🔻	Loan 🔻	Origination v	Party 🔻	Payment And Collection	•	Term Deposit 🔻	Fast Path	*
OPA003 ×																
Monitor Batch Per	formance															
														🛱 Print 🗸	O <u>k</u> 🤣 Clear	🛛 Exit
													_			×
com diss tr. framework. bai com diss tr. banework. bai com diss tr. baich. mdb Str. diss tr. baich. mdb Str. diss tr. baich. mdb Str. com diss tr. domain accou com diss tr. domain loan a com diss tr. domain loan a com diss tr. domain loan a	ch. process. Recov ch. process. Batchf amilistenerMDB. ch. exception. Batch reption. BusinessE nting.da. entity. tran nting.da. entity. tran nting.da. entity. tran nting.da. entity. tran da. entity. tran service. da. Accor ccounting. service. Joanisurar urance. Loaninsurar urance. Loaninsurar urance. Loaninsurar	erableBatchProc rocess.start(Batc notMessage(Strei ActionProcessifi sactionentry.Acc sactionentry.Acc sactionentry.Acc cocuntingTempla untingEventAppli LoanAccounting anceApplication.up ancActionEvecutor xecutor.ActionSe	ses executeBatchip hProcess java 507 amListenerADB java 507 amListenerADB java 507 gervas not found f vunting Transaction ounting Transaction ounting Transaction ounting Transaction lefeicher generate Service raiseAccou dateAndRai	RecoverableB, at com.ofss.fit. a91)Caused ion occured w or the accoun ContainerFac ContainerFac ContainerFac ContainerFac AndProcessA AndP	atchProcess java: c.bh.batch.Stream y java.lang.refle hhile executing Ac- tory.updateAccou tory.u	159) at com ofss.fc. ProcessHelper reg tchroceation Target sit. ForAliasOrFacBB Sit. ForAliasOrFacBB Sit. ForAliasOrFacBB SolAccounting Com SolAccounting Com SolAccounting Com Solator Solation suranceApplication (LoaninsuranceAp m ofss.fc.domain I solat.	framework batch p uestBatchProcess Exception at com. fc.domain.account of LPLUN. at ased/Accounting T. DerivedOrModule tainer/Accounting perived/Apolicat mofss.fc.app.loaa mofss.fc.app.loaa java:4043).at con plication.java:434 nan.action.executo	rocess.Reco (StreamProc Sts.fc.frame/ tservice.actii ransactionCc Supplied(Ac TransactionC a:34) at com, onService ja insurance L. nofss.fc.app. 1) at com, Str. r.LoanActior	verableBatch ssHelper Javork batch pr ork batch pr na executor A intainerFacto counting Tran ontainerFact ofss.fc. domai aufisurance aninsurance isc. app.loan. Executor.exe	Process process B var75) at com ofts i ocess BatchProcest cktion SelProcessor (pr) java: 518) at isaction Container For Java: 222) at in accounting da s om ofts / capp ad chopication raise/ ce Loaninsurance/ account CCIRevie cute Action(LoanA	atch (Recove fc.bh.bath.St s.execute(Ba r.processActio factory.java:4 envice.Accour upter.impl.loa Accounting(Le Application.up wApplication .ctionExecuto	rableBatchProcess java 21 ramProcesHelper proce thchProcess java 918)6 i nnSet(ActionSetProcessor) 49) at ltingEventService processor L coanAccountingAdapter antinamenter process(CCIReviewApplic r java;71) at	r) at sReque toreCat ava:191 vccounti aiseAcc va:919) dRaise ation.jav	est(StreamProcess used by:) 7 moreCaused ingEvent(Account) countingEvent(Loa at Accounting(LoanIn Accounting(LoanIn a.70) at	Helper Java:49) a by: IgEventService ja nAccountingAdap suranceApplicatio	t va:560) at ter java:63) at on java:3844) OK Cancel
A Relative Perfo	rmance Summ	ary														
T14. BUILD_DATE=2015-01 PDBT14. Host IP : 10.180.4. Convright @ Oracle Einanci	5-26 TNS Details : 125 al Services Softwa	PDBT14 = (DES	CRIPTION = (ADDF	RESS = (PROT	FOCOL = TCP)(HC	ST = OBPDB-RAC	-CLUSTER-SCAN	l.in.oracle.co	m)(PORT = 1	521)) (CONNECT_	_DATA = (SEI	RVER = DEDICATED) (SEI	VICE_	NAME = PDBT14)). DB Details : t14	4rd/t14rd @

Reports Table

For Report based shells different parameters related to report processing are monitored. The monitored parameters are given below:

Attribute Name	Description
Report Id	ID to uniquely identify report
Report Type	Report
Type Of Report	Indicates type of reports. Reports are classified based on category.
Processing Date	Indicates processing date of report.
Status	Indicates the status of the report. Valid Values: DONE, PENDING, RUNNING, ABORTED.
Error Message	Error message represents the reason for report failure. No message is displayed in case of successful run.

Figure 6–24 Report Based Shells



The status of report based shell during batch run is shown in Figure 6-25:

Figure 6–25 Status of Report Based Shell

Monitor Batch	Performance											
										🖨 Print	🗸 0k 🛛 🥔	Clear
						0%	100					
BOD Rep	ports	Com	plete Trend 00	00:00		0%	100					
> BOD Epi	loque	In Pr	oaress Trend 00	00:09								
												_
# BOD Epilo	gue Shell Details											
	N	Nodule Code EO					Wait Time		Pending Time -			
	Number	r of Streams -					No of Aborts		commentCount 0			
		Start lime 2015-0	0-02 14:38:10				records Processed					
		End Time					Failed Records					
BOD Epilo	gue Shell Notes											
+ ADD NEW NO	ce											
o /tems to display	Y											
leport Id	Report Type	Type Of Report	Processing Date	Status								
_ADVICE	REPORT	BOD	2017-04-15 00:	FAILED								
DEXCP	REPORT	800	2017-04-15 00:	FAILED								
0241	REPORT	800	2017-04-15 00	FAILED								
D103	REPORT	BOD	2017-04-15 00:	FAILED								
D102	REPORT	BOD	2017-04-15 00:	FAILED								
NS08	REPORT	BOD	2017-04-15 00:	FAILED								
								N				
BOD Epile	gue Error Desc							6				
View •	() Detach											
ErrorCode	ProcessResult	BranchCode	BranchGroupCod	e RunCount	ErrorDesc	SummaryText	_					
4	4	1010	BRN_GRP_1	1	javax.xml.ws.soap.SOAPFaultE	TD241						
4	4	1010	BRN_GRP_1	1	javax.xml.ws.soap.SOAPFaultE	TD102						
4	4	1010	BRN_GRP_1	1	javax.xml.ws.soap.SOAPFaultE	TD103						
		1010	BRN_GRP_1	1	javax.xm.ws.soap.SOAPFaultE	TUEXUP						
1		1010	BRN_GRP_1	1	javax.xm.ws.soap.SOAPFaultE	10104						

Exception Report

On click of Generate Document, it generates a report for aborted shells with information like Abort count and exception log.

Figure 6–26 Exception Report

OPA003 x					
	1 Information ×				
Monitor Batch Performance	Documents generated successfully.			🚔 Print 🗸 Ok 🤌 Cl	ear 🖪 Exit
	ок		Refresh Time 01-Jun	-2015 10:06:48 AM GMT+05	30 🝓 🕯
				Auto Refresh	•
Select Category Beginning of Day	•	Job Type	GROUP		
* Processing Date 31-Mar-2017	a a	Job Code	BRN_GRP_1		
			⊿ Adhoc Gene	rate and View	
				Generate Document	View Document
⊿ Batch Summary					
Category Name BEGINING OF DAY	Start Time	29 May 2015 14:05:37	Wait Time	00:20:20	
Status COMPLETE	End Time	29 May 2015 14:44:06	Execution Time	00:18:09	
# of Aborts 2			Time Taken	00:38:29	¥

The different parameter monitored at shell level and exception logs for all aborted shells are part of exception report. Figure 6–27 displays sample report for a particular shell.

Figure 6–27 Sample Report

	CEPTION REPORT	leb Tyme : CBOU							
IN TO EMENALD_DU					Jub Type . GROU				
nch : 1010					Job Code: BRN_GRF				
. ID :					Report Date : 15-04-2				
BOD Epilogue									
Start Time :	2-Jun-2015 9:08	AM	End Time :	2-Jun-2015 9:13 AM					
Records Skipped :			Duration :	00:05:18					
Number of Aborts :	1		Wait Time :	00:05:08					
			5						
Abort Statistics									
About Time	Deste	rt Time	15	About Duration					
Abort Time 2-Jun-2015 9:08 AM	Resta 2-Jun-20	rt Time 15 9:13 AM	~5	Abort Duration 00:05:08					
Abort Time 2-Jun-2015 9:08 AM Exception Summary	Resta 2-Jun-20	rt Time 15 9:13 AM		Abort Duration 00:05:08					
Abort Time 2-Jun-2015 9:08 AM Exception Summary	Resta 2-Jun-20	rt Time 15 9:13 AM	Fror Code	Abort Duration 00:05:08	Fror Description				
Abort Time 2-Jun-2015 9:08 AM Exception Summary Report Name Maturities Due Report	Report ID TD102	rt Time 15 9:13 AM Module Code	Error Code	Abort Duration 00:05:08	Error Description				
Abort Time 2-Jun-2015 9:08 AM Exception Summary Report Name Maturities Due Report	Resta 2-Jun-20 Report ID TD102	rt Time 15 9:13 AM Module Code TD	Error Code Time Of Last Upp javax.xml.vs.soa	Abort Duration 00:05:08 date : 2015-06-02 14:38:11.411 p.SOAPFaulException:	Error Description javax.xml.vs.scap.SOAPFaultException: oracle.xdo.webservice.exception.AccessDeni				
Abort Time 2-Jun-2015 9:08 AM Exception Summary Report Name Maturities Due Report	Resta 2-Jun-20 Report ID TD102	rt Time 15 9:13 AM Module Code TD	Error Code Time Of Last Up javax.rml.vs.soa oracle.xdo.webs	Abort Duration 00:05:08 date : 2015-06-02 14:38:11.411 p:SOAPFaultException: ervice exception.cessDeniedException	Error Description javax xml ws.soap.SOAPFaultException: oracle.xdo.webservice.exception.AccessDeni edException: java.lang.SecurityException:				
Abort Time 2-Jun-2015 9:08 AM Exception Summary Report Name Maturities Due Report	Resta 2-Jun-20 Report ID TD102	rt Time 15 9:13 AM Module Code TD	Error Code Time Of Last Upp javax xml.ws.soa oracle.xdo.webss java.lang.Securit	Abort Duration 00:05:08 date : 2015-06-02 14:38:11.411 p: SOAPF auftException: avrice: acception AccessDeniedException Evception: Tailed to log into BI Publishe	Error Description javax.xml.ws.scap.SOAPFaultException: oracle.xdo.webservice.exception.AccessDeni edException: java.lang.SecurityException: rr Falled to log into BI Publisher: invalid				
Abort Time 2-Jun-2015 9:08 AM Exception Summary Report Name Maturities Due Report Account/ Deport	Resta 2-Jun-20 Report ID TD102	rt Time 15 9:13 AM Module Code TD	Error Code Time Of Last Up javax.xml.ws.soa oracle.xdo.websa java.lang.Securit invalid username Time Of Last Up	Abort Duration 00:05:08 date : 2015-06-02 14:38:11.411 p.SOAPFaulException: ervice.exception.AccessDeniedException vervice.exception.AccessDeniedException of password. date: 2015-06-02 14:38:11 374	Error Description javax.xml.vs.soap.SOAPFaultException: oracle.xdo.webservice.exception.AccessDeni edException.java.lang.SecurityException: r. Failed to gin to BI Publisher.invalid username or password. javax.vml.vs.soap.SOAPFaultExcention:				
Abort Time 2-Jun-2015 9:08 AM Exception Summary Report Name Maturities Due Report Account/ Deposit Exceptions	Resta 2-Jun-20 Report ID TD102 TDEXCP	rt Time 15 9:13 AM Module Code TD TD	Fror Code Time Of Last Up java.xml vs.soa oracle.xdo.vebs. java lang.Securit invalid username Time Of Last Up iavax.nml vs.soa	Abort Duration 00:05:08 date : 2015-06-02 14:38:11.411 p. SOAPFaulException: revide: exception AccessDeriedException yException: Failed to log into BI Publishe or password. date : 2015-06-02 14:38:11.374 up. SOAPFaulException:	Error Description javax.xml.ws.soap.SOAPFaultException: oracle.xdo.webservice.exception AccessDeni edException: java.lang.SecurityException: r: Failed to log into BI Publisher: invalid username or password. javax.xml.ws.soap.SOAPFaultException: oracle.xdo.webservice.exception.AccessDeni				
Abort Time 2-Jun-2015 9:08 AM Exception Summary Report Name Maturities Due Report Account/ Deposit Exceptions	Resta 2-Jun-20 Report ID TD102 TDEXCP	rt Time 15 9:13 AM Module Code TD TD	Error Code Time Of Last Up javax xml vs. soo orade xdo webs: java lang.Securit invalid username Time Of Last Up javax xml vs. soo orade. xdo webs:	Abort Duration 00:05:08 date : 2015-06-02 14:38:11.411 p.SOAPFaulException: ervice.exception AccessDeniedException for password. date : 2015-06-02 14:38:11.374 p.SOAPFaulException: ervice.exception AccessDeniedException	Error Description javax.xml.vs.scap.SOAPFaultException: oracle.xdo.webservice.exception.AccessDeni edException: java.lang.SecurityException: r Failed to gin to BI Publisher: invalid username or password. javax.xml.vs.scap.SOAPFaultException: oracle.xdo.webservice.exception.AccessDeni edException: java.lang.SecurityException:				
Abort Time 2-Jun-2015 9:08 AM Exception Summary Report Name Maturities Due Report Account/ Deposit Exceptions	Resta 2-Jun-20 Report ID TD102 TDEXCP	rt Time 15 9:13 AM Module Code TD TD	Fror Code Time Of Last Up java zmi ws.soa oracle.zdo.webs. java lang.Securit invalid username Time Of Last Up java.zmi.ws.soa oracle.zdo.webs. java Lang.Securit	Abort Duration 00:05:08 date: 2015-06-02 14:38:11.411 pp:SOAPFaulException: ervice.exception.AccessDeniedException yException: Failed to log into BI Publishe or password. BioSOAPFaulException: ervice.exception.AccessDeniedException yException.Failed to log into BI Publishe	Error Description javax.xml ws.soap.SOAPFaultException: oracle xdo webservice exception.AccessDeni edException: java.lang.SecurityException: r: Failed to log into BI Publisher: invalid usemarre or password. javax.xml ws.soap.SOAPFaultException: oracle xdo.webservice.exception.AccessDeni edException: java.lang.SecurityException: r. Failed to log into BI Publisher: invalid				
Abort Time 2-Jun-2015 9:08 AM Exception Summary Report Name Maturities Due Report Account/ Deposit Exceptions	Resta 2-Jun-20 Report ID TD102 TDEXCP	rt Time 15 9:13 AM Module Code TD TD	Time Of Last Up java.xml vs.soa oracle.xdo.webs java.lang.Securit invaild username java.lang.Securit invaild username invaild username	Abort Duration 00:05:08 date : 2015-06-02 14:38:11.411 p.SOAPFaulException: ervice: exception AccessDeriedException or password. date : 2015-06-02 14:38:11.374 p.SOAPFaulException: ervice: exception: AccessDeriedException yException: Failed to log into BI Publishe or password.	Error Description javax.xml.vs.scap.SOAPFaultException: oracle.xdo.webservice.exception.AccessDeni edException: java.lang.SecurityException: r. Failed to log into BI Publisher: invalid username or password. javax.xml.vs.scap.SOAPFaultException: oracle.xdo.webservice.exception.AccessDeni edException: java.lang.SecurityException: r. Failed to log into BI Publisher: invalid username or password.				
Abort Time 2-Jun-2015 9:08 AM Exception Summary Report Name Maturities Due Report Account/ Deposit Exceptions Matured Deposits with	Resta 2-Jun-20 Report ID TD102 TDEXCP TD103	rt Time 15 9:13 AM Module Code TD TD TD	Error Code Time Of Last Upp javax.ml/s.soa oracle.xdo.webs/ java.lang.Securit invaild username java.lang.Securit invaild username Time Of Last Upp javax.ml/ss.soa java.lang.Securit invaild username Time Of Last Upp	Abort Duration 00:05:08 date : 2015-06-02 14:38:11.411 p.SOAPFaulException: ervice.exception.AccessDeniedException yexception: Faulet to log into BI Publishe or password. date : 2015-06-02 14:38:11.374 p.SOAPFaulException: ervice.exception.AccessDeniedException yexception: FaulException: ervice.exception.AccessDeniedException date : 2015-06-02 14:38:11.347	Error Description javax.xml.vs.soap.SOAPFaultException: oracle xdo.webservice.exception.AccessDeni edException: java lang.SecurityException: r. Failed to log into BI Publisher. invalid username or password. javax.ml.vs.soap.SOAPFaultException: oracle.xdo.webservice.exception.AccessDeni edException: java lang.SecurityException: r. Failed to log into BI Publisher: invalid username or password. javax.ml.vs.soap.SOAPFaultException:				
Abort Time 2-Jun-2015 9:08 AM Exception Summary Report Name Maturities Due Report Account/ Deposit Exceptions Matured Deposits with No instructions	Resta 2-Jun-20 TD102 TDEXCP	rt Time 15 9:13 AM Module Code TD TD TD	Time Of Last Up javax.xml vs.soa oracle xdo.vebs- java.lang.Securit invalid username Time Of Last Up javax.xml vs.soa oracle xdo.vebss java.lang.Securit invalid username Time Of Last Up javax.xml vs.soa	Abort Duration 00:05:08 date : 2015-06-02 14:38:11.411 p. SOAPFaulException: srvice acception AccessDeniedException gexception: Ratile to tog into BI Publishe or password. date : 2015-06-02 14:38:11.374 p. SOAPFaulException: srvice acception: Ratile to tog into BI Publishe or password. date : 2015-06-02 14:38:11.347 j. SOAPFaulException: sp. SOAPFaulException:	Error Description javax.xml ws.soap.SOAPFaultException: oracle x40 webservice.exception AccessDeni edException: java lang.SecurityException: r Failed to log into BI Publisher: invalid username or password. javax.xml ws.soap.SOAPFaultException: oracle x40 webservice.exception AccessDeni edException: java lang.SecurityException: r Failed to log into BI Publisher: invalid username or password. javax.xml ws.soap.SOAPFaultException: oracle x40.webservice.exception AccessDeni oracle x40.webservice.exception AccessDeni				
Abort Time 2-Jun-2015 9:08 AM Exception Summary Report Name Maturities Due Report Account/ Deposit Exceptions Matured Deposits with No Instructions	Resta 2-Jun-20 Report ID TD102 TDEXCP TD103	rt Time 15 9:13 AM Module Code TD TD TD	Error Code Time Of Last Up java.xml vs.soa oracle.xdo.vebsa java.lang.Securit invalid username Time Of Last Up javax.xml vs.soa oracle.xdo.vebsa Time Of Last Up javax.xml vs.soa oracle.xdo.vebsa	Abort Duration 00:05:08 date : 2015-06-02 14:38:11.411 p.SOAPFaulException: ervice.exception.AccessDeniedException yexception: Failed to log into BI Publishe or password. date : 2015-06-02 14:38:11.374 p.SOAPFaulException: ervice.exception.AccessDeniedException yexception: Failed to log into BI Publishe or password. date : 2015-06-02 14:38:11.347 p.SOAPFaulException: ervice.exception.accessDeniedException whice exception.AccessDeniedException: ervice.exception.accessDeniedException: ervice.exception.accessDeniedException: ervice.exception.AccessD	Error Description javax.xml.vs.soap.SOAPFaultException: oracle xdo.webservice.exception.AccessDeni : edException: java.lang.SecurityException: r. Failed to log into BI Publisher. invalid username or password. javax.xml.vs.soap.SOAPFaultException: oracle xdo.webservice.exception.AccessDeni edException: java.lang.SecurityException: rr. Failed to log into BI Publisher. invalid username or password. javax.xml.vs.soap.SOAPFaultException: oracle.xdo.webservice.exception.AccessDeni edException.java.lang.SecurityException:				

Exception Log Table

The figure below provides the details of the exception log.

Figure 6–28 Exception Log Table

ERROR CODE	ERROR DESCRIPTION	SUMMARY
kException: An error occurred in batch process.862-8203-0444- 6360		
Time Of Last Update : 2013-09-11 11:28:51.438 Error reference Number :862-8182-2552-7227Error msg :An error occurred in batch process. Error cause :com.ofss.fc.framework batc h.exception.BatchFramewor kException: An error occurred in batch process.862-8182-2552- 7227	com.ofss.fc.framework.batch.exception.BatchFrameworkException: An error occurred in batch process. at com.ofss.fc.framework.batch.process.BatchProcess.execute(BatchProcess.java:910) at com.ofss.fc.framework.batch.process.RecoverableBatchProcess.executeBatch(RecoverableB atchProcess.java:432) at com.ofss.fc.framework.batch.process.RecoverableBatchProcess.processBatch(RecoverableB atchProcess.java:432)	
Time Of Last Update : 2013-09-11 11:28:53.868 Error reference Number :862-8206-5767-2044Error msg :An error occurred in batch process.Error cause :com.ofss.fc.framework.batc h.exception: An error occurred in batch process.862-8206-5767- 2044	com ofss fc.framework.batch.exception.BatchFrameworkException: An error occurred in batch process. at com.ofss.fc.framework.batch.process.BatchProcess.execute(BatchProcess.java:910) at com.ofss.fc.framework.batch.process.RecoverableBatchProcess.executeBatch(RecoverableB atchProcess.java:432) at com.ofss.fc.framework.batch.process.RecoverableBatchProcess.processBatch(RecoverableB atchProcess.java:	

6.2.3 Histogram of Shell Attribute Comparison

This section provides graphical view for comparing shell attributes for any two selected dates. The processing date, shell attribute and module name are taken as input to this table. The output is displayed as bar graph in which X axis represents the name of the shell and Y axis denotes value of shell attribute. For each shell two records are displayed, these records corresponds to the dates for which the data is being compared.





6.3 ODI Batch Handoff Monitoring

This section provides, top package level execution details for monitoring of ODI handoff. The input for these details are category ID, branch group code, branch group type, and processing date.

Figure 6–30 describes the input parameters for the batch handoff monitoring and the shell details like name of shell, start time, end time, number of aborts.

Figure 6–30 Input Parameters for Batch Handoff

OPA003 ×									
Monitor Batch Performance	e								
							É	🖹 Print 🗸 O <u>k</u> 🤌 G	Clear 🙁 Exit
						Refres	h Time 03-Jun-20)15 11:12:34 AM GMT+0	5:30 🐻 🔥
								Auto Refresh	off 🗸
Sele	ect Category Analytics B	atch Di 🗸				Job Type GR		Keirean	
* Proc	essing Date 15-Dec-201	6 📮 😱				Job Code BR	N_GRP_1 Q		
							Adhoc Genera	te and View	
								Generate Document	View
									Document
Batch Summary									
Category Name	Analytics Batch Data Hand-	off	Start Time	28 May 2015 16:11:1	19		Wait Time	02:29:36	
Status A	ABORTED		Time	03 Jun 2015 11:27:34 * Elapsed Time 139:01:15					
# of Aborts 1	12		Status	DELAYED BY 8356	mins				- 1
A Shell Details									බ
-									
Clear All Filters	el 民 🗟 Detach								
Name of Shell State	e Tre	nd Duration	No of Aborts	Throughput	Total Records	Status	Expected Co	mpletion Time	
▶ Analytics Hand Com	nplete Tren	d 00:00:00		-		0%	100'		
Analytics Data Com	nplete Tren	d 00:01:07		-	-		-		
	4.4 T	d 400.00.00	12			0%	100		
Analytics epilog Abor	rtea Tren	a 139:00:08	12	-			-		

Execution Unit

On click of the analytics data Handoff shell, the below table is shown with the execution unit (top level package) level details:

This table contains the following attributes:

- Execution unit name
- Start time of execution of the execution unit
- End time of execution of the execution unit
- Number of aborts of the execution unit
- Duration of execution of the execution unit
- Service provider for ETL process (ODI)
- Execution status of the execution unit, that is, complete, running, and aborted
- Records processed at the stage level in ETL process

Figure 6–31 Execution Unit

Analytics Data Hand-O	ff Details						
Module Code	DI	Wa	it Time -			Pending Time -	
Number of Streams		No of	Aborts			commentCount 0	
Start Time	2015-05-28 16:11:19	Records Pro	cessed -				
End Time of		E-R-d D					
End Time	2015-05-28 10:12:20	Falled R	ecorus -				
Analytics Data Hand-O	ff Notes						
Add New Note							
- Add New Note							
Add New Note	Start Time	End Time	No Of Aborts	Duration	Service Provider	Execution Status	Records Processed
Add New Note ecution Unit KG_LN_CONTRACT_INTERF	Start Time ACES 28-May-2015 16.12:27	End Time 28-May-2015 16:13:34	No Of Aborts 0	Duration 00:01:07	Service Provider ODI_SERVICE_PROVIDER	Execution Status	Records Processed
Add New Note ecution Unit G_LN_CONTRACT_INTERF G_ACCOUNT_RATE_TIERS	Start Time ACES 28-May-2015 16.12.27 3 28-May-2015 16.12.26	End Time 28-May-2015 16:13:34 28-May-2015 16:12:41	No Of Aborts 0 0	Duration 00:01:07 00:00:15	Service Provider ODL_SERVICE_PROVIDER ODL_SERVICE_PROVIDER	Execution Status C C	Records Processed
Add New Note ecution Unit KG_LN_CONTRACT_INTERF KG_ACCOUNT_RATE_TIERS KG_AS_ACCOUNT_ENTRY	Start Time ACES 28-May-2015 16.12.27 28-May-2015 16.12.26 28-May-2015 16.12.26 28-May-2015 16.12.26 28-May-2015 16.12.26	End Time 28-May-2015 16:13:34 28-May-2015 16:12:41 28-May-2015 18:05:03	No Of Aborts 0 0 1	Duration 00:01:07 00:00:15 01:52:37	Service Provider ODI_SERVICE_PROVIDER ODI_SERVICE_PROVIDER ODI_SERVICE_PROVIDER	Execution Status C C C	Records Processed
Add New Note ecution Unit GLN_CONTRACT_INTERF (G_ACCOUNT_RATE_TIERS (G_AS_ACCOUNT_ENTRY G_TD_INTERFACES	Start Time ACES 28-May-2015 16:12:27 28-May-2015 16:12:23 28-May-2015 16:12:23 28-May-2015 16:12:23 28-May-2015 16:12:23	End Time 28-May-2015 16:13:34 28-May-2015 16:12:41 28-May-2015 18:05:03 28-May-2015 18:34:17	No Of Aborts 0 0 1 1	Duration 00:01:07 00:00:15 01:52:37 02:21:54	Service Provider ODI_SERVICE_PROVIDER ODI_SERVICE_PROVIDER ODI_SERVICE_PROVIDER ODI_SERVICE_PROVIDER	Execution Status C C C C	Records Processed
Add New Note ecution Unit Go_LA_CONTRACT_INTERF (G_AS_ACCOUNT_RATE_TIERS (G_AS_ACCOUNT_ENTRY (G_AS_LATERFACES (G_PM_INTERFACES	Start Time ACES 28-May-2015 16:12:27 28-May-2015 16:12:26 28-May-2015 16:12:26 28-May-2015 16:12:26 28-May-2015 16:12:26 28-May-2015 16:12:26 28-May-2015 16:12:16 28-May-2015 16:12:26 28-May-2015 16:12:16	End Time 28-May-2015 16:13:34 28-May-2015 16:12:41 28-May-2015 18:05:03 28-May-2015 18:34:17 28-May-2015 16:12:32	No Of Aborts 0 0 1 1 1 0	Duration 00:01:07 00:00:15 01:52:37 02:21:54 00:00:19	Service Provider ODI_SERVICE_PROVIDER ODI_SERVICE_PROVIDER ODI_SERVICE_PROVIDER ODI_SERVICE_PROVIDER	Execution Status C C C C C C C	Records Processed
Add New Note ecution Unit G_LA_CONTRACT_INTERF GG_ASQACCOUNT_ENTRY GG_DT_INTERFACES GG_PARTY_FIN_INTERFACES	Start Time ACES 28-May-2015 16.12.27 3 28-May-2015 16.12.26 28-May-2015 16.12.23 28-May-2015 16.12.23 28-May-2015 16.12.23 28-May-2015 16.12.13 28-May-2015 16.12.23 28-May-2015 16.12.13 28-May-2015 16.12.13 28-May-2015 16.12.13	End Time 28-May-2015 16:13:34 28-May-2015 16:12:41 28-May-2015 18:34:17 28-May-2015 18:34:17 28-May-2015 16:12:22 28-May-2015 16:12:22	No Of Aborts 0 0 1 1 1 0 0	Duration 00:01:07 00:00:15 01:52:37 02:21:54 00:00:19 00:00:29	Service Provider ODI_SERVICE_PROVIDER ODI_SERVICE_PROVIDER ODI_SERVICE_PROVIDER ODI_SERVICE_PROVIDER ODI_SERVICE_PROVIDER ODI_SERVICE_PROVIDER	Execution Status C C C C C C C C C C C C C C C C C C C	Records Processed
Add New Note acution Unit G_LN_CONTRACT_INTERF GQ_ACCOUNT_ENTRY GQ_TO_INTERFACES GQ_PARTY_FIN_INTERFACES GQ_PARTY_FIN_INTERFACES	Start Time ACES 28-May-2015 16:12:27 3 28-May-2015 16:12:26 28-May-2015 16:12:23 28-May-2015 16:12:23 28-May-2015 16:12:23 28-May-2015 16:12:35 28-May-2015 16:11:58 28-May-2015 16:11:58	End Time 28-May-2015 16:13:34 28-May-2015 16:12:41 28-May-2015 18:05:03 28-May-2015 18:34:17 28-May-2015 16:12:32 28-May-2015 16:12:27 28-May-2015 16:12:27	No Of Aborts 0 0 1 1 1 0 0 0 0	Duration 00:01:07 00:00:15 01:52:37 02:21:54 00:019 00:00:19 00:00:29 00:00:43	Service Provider ODL_SERVICE_PROVIDER ODL_SERVICE_PROVIDER ODL_SERVICE_PROVIDER ODL_SERVICE_PROVIDER ODL_SERVICE_PROVIDER ODL_SERVICE_PROVIDER ODL_SERVICE_PROVIDER	Execution Status C C C C C C C C C C C C C C C C C C C	Records Processed
Add New Note ecution Unit GOLN_CONTRACT_INTERF GO_ACCOUNT_RATE_TIERS GO_AS_ACCOUNT_ENTRY GO_TD_INTERFACES GO_PARTY_FIN_INTERFACES GO_PU_INTERFACES GO_OR_INTERFACES	Start Time ACES 28-May-2015 16.12.27 3 28-May-2015 16.12.26 28-May-2015 16.12.23 28-May-2015 16.12.23 28-May-2015 16.12.31 28-May-2015 16.11.53 28-May-2015 16.11.53 28-May-2015 16.11.53 28-May-2015 16.11.53 28-May-2015 16.11.53 28-May-2015 16.11.53 28-May-2015 16.11.53	End Time 28-May-2015 16:13:34 28-May-2015 16:12:41 28-May-2015 18:05:03 28-May-2015 18:34:17 28-May-2015 16:12:32 28-May-2015 16:12:27 28-May-2015 16:12:38 28-May-2015 16:12:38	No Of Aborts 0 0 1 1 1 0 0 0 0 0 0	Duration 00:01:07 00:00:15 01:52:37 02:21:54 00:00:19 00:00:29 00:00:66	Service Provider ODL_SERVICE_PROVIDER ODL_SERVICE_PROVIDER ODL_SERVICE_PROVIDER ODL_SERVICE_PROVIDER ODL_SERVICE_PROVIDER ODL_SERVICE_PROVIDER ODL_SERVICE_PROVIDER ODL_SERVICE_PROVIDER	Execution Status C C C C C C C C C C C C C C C C C C C	Records Processed
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Abort Statistics

On click of aborted execution unit, the below table is shown with the abort details like run count, the actual error description, and summary of the exception containing the interface name for which the exception occurred.

20	Monitor Batch F	erformance											
									🚔 Print	✓ O <u>k</u>	🤣 C <u>l</u> ear	🛛 E	×it
													*
	Execution Unit	Start Time	End Time	No Of Aborts	Duration	Service Provider	Execution Sta	tus Records Processed					
	PKG_TD_INTE	28-May-2015 1	28-May-2015 1	1	02:21:54	ODI_SERVICE	С					_	
	PKG_PM_INTE	28-May-2015 1	28-May-2015 1	0	00:00:19	ODI_SERVICE	С						
	PKG_PARTY_F	28-May-2015 1	28-May-2015 1	0	00:00:29	ODI_SERVICE	С						
	PKG_PI_INTER	28-May-2015 1	28-May-2015 1	0	00:00:43	ODI_SERVICE	С						
	PKG_OR_INTE	28-May-2015 1	28-May-2015 1	0	00:00:56	ODI_SERVICE	С						
	PKG_MITIGAN	28-May-2015 1	28-May-2015 1	0	00:00:49	ODI_SERVICE	С						
	PKG_LN_INTE	28-May-2015 1	28-May-2015 1	0	00:00:49	ODI_SERVICE	С						
	PKG_GL_INTE	28-May-2015 1	28-May-2015 1	0	00:00:11	ODI_SERVICE	С						
	PKG_FACILITY	28-May-2015 1	28-May-2015 1	0	00:00:41	ODI_SERVICE	С						
	PKG_DDA_INT	28-May-2015 1	28-May-2015 1	1	01:54:50	ODI_SERVICE	С					-	
	View 🔻 🗑] Detach											1
	ErrorCode	ProcessResult	BranchCode	BranchGroupCode	RunCount	ErrorDesc		SummaryText					
	2	2	1010	BRN_GRP_1	0	Failure at Int.STG	_TD_MAS	PKG_TD_INTERFACES					

On click of the error description table, the error description message appears as shown in Figure 6–33:

Figure 6-3	33 Failure	Error	Description
------------	------------	-------	-------------

	Apps 💽 Oracle	e Banking Platf	interface and adapte	L. 💽 Designing a N	Aessagi	OTN Discussion	n For D ODI Demo Class - Y	Mappings He	ome 🛄 Imported	COL Oracle B	Biog	•
	ccount * Back (Office * CASA *	Collection * Cred	RCard * LOM *	Loan -	Origination * P	arty * Payment And Collection *	Term Deposit *	***	Fast Path		
l	OPAQ03									D But 140		5.4
	wonitor satch	Performance									t e clear e	
	PKG_OR_INTER	FACES	24-307-201	41 24-305-2014	1	00.00.04	COLSERVICE_PROVIDER	<u>^</u>				
	PKG_MTIGANT_I	INTERFACES	24-Jun-201	4 1 24-Jun-2014	1 1	00.00.05	ODI_SERVICE_PROVIDER	A				
	PKG_UN_INTERF	ACES	24-Jun-201	4 1 24-305-2014	1	00.00.05	ODL_SERVICE_PROVIDER	A				
	PKG_GL_INTERF	ACES	24-Jun-201	4 1 24-305-2014	1 1	00.00.04	ODI_SERVICE_PROVIDER	^				
	PKG_FACUTY_B	NTERFACES	24-Jun-201	4 1 25-Jun-2014	0 2	13.43.42	ODI_SERVICE_PROVIDER	*				
	PKG_DOA_INTER	BACES	24-Jun-201	4 1 25-Jun-2014	0 2	13:43:39	COLSERVICE_PROVIDER	*				
	PKG_CUST_INTE	ERFACES	24-Jun-201	4 1 24-Jun-2014	1 1	00.00.15	ODI_SERVICE_PROVIDER	A				-
141	ErrorCode 2	ProcessRenat 2	BranchCode	BranchörrepCode B BRALGRP_1 0	anCourt	Fallure alin:510_TD_MAS at2014-05-24 1922	TER Check Operator logs 2010 for further details. (CK) (Canoel) Error de	etail for int	erface			8
	Compare Date 1	mance Summary 4-Feb-2017 (b) 51	heil Athibute (Record	s Processed •	Nodul	e	Q Conses					

7 Application Monitoring Using EM Plugin

This chapter provides an overview on the various monitoring operations performed as an administrator, using Enterprise Manger (EM) Plugin.

7.1 Monitoring Application Using EM Plugin

Once DMS statistics are captured for a particular channel and transactions involving in it, it requires a UI representation to understand the stats in a readable form so that one can analyze the behavior. The monitoring activities are mainly carried out by IT Technical staff.

7.1.1 Oracle Enterprise Manager (EM)

Oracle Enterprise Manager is the application where all the monitoring data exists. It includes server and machines status and performance and also OBP monitoring statistics.

All the servers are monitored by EM including Host, UI, SOA, and so on.

We have a view corresponding to every environment containing all the components which include outbound components.

Some notations in EM are provided below:

•	Indicates component is down					
•	Indicates component is up and running					
8	Indicates alerts					
▲	Indicates warnings					
Nő	Indicates metric collection error					
~	Indicates healthy status					

Table 7–1 Notations in EM

The following figure shows the environment view in Oracle Enterprise Manager:

Figure 7–1 Oracle Enterprise Manager

	ager Cloud Control 13	3c							4	Enter	prise	▼ ⊚ Targets ▼ ★ Eavorites ▼ ●	History •	Setup 🔻	0		SMO	KEPROD261_L	USER 🔻 🚥
Services												Auto Re	fresh Off	~	Page	Refres	hed Nov	1, 2017 5:04:	31 PM IST 🕥
■ Services Features																			
Type ALL V Name 9	16	🔍 Adva	nced Search																
View 👻 🎽 Create 👻 🗙 Remo	ve																		
Name		Status	s Availabilit	Se L Agr y S	ervice evel reeme tatus	ent		Incid	lents	3		System	Key	Compo	nents			Key	Tests
							Performan Usage			sag	е		Status	Incidents				Status	Monitoring
					•	•	8	-	8	▲	•		Status	•	8	▲		Status	Beacons
OBP_SMOKEPROD261_SOA_Service	Generic Service	+	Tests	-	-	-		-	-		-	/SMOKEPROD261_SOA_mum00aba_in_oracle_c /base_domain/soa_server1/soa-infra	n/a	0	0	0	0	1	1
OBP_SMOKEPROD261_HOST_Service	Generic Service	+	Tests	-	-	-		-	-	-	-	/SMOKEPROD261_HOST_ofss3121179_in_oracle /host_domain	n/a	0	0	0	0	1 1	1
OBP_SMOKEPROD261_Monitoring_Se	Generic Service	+	System	-	-	-		-	-	-	-	OBP_SMOKEPROD261_Monitoring_System	1	0	0	0	0	n/a	0
OBP_SMOKEPROD261_UI_Service	Generic Service	+	Tests	-	-	-		-	-	-	-	/SMOKEPROD261_UI_ofss310490_in_oracle_co /ui_domain	n/a	0	0	0	0	1	1
OBP_SMOKEPROD261_OID_Service	Generic Service	+	Tests	-		-		-	-	-	-	/SMOKEPROD261_OID_ofss3121155_in_oracle /IDMDomain	n/a	0	0	0	0	1	1
OBP_SMOKEPROD261_View	Aggregate Service	+	Sub	-	-			-	-		-	n/a	\$ 5	0	0	0	0	n/a	0

The views in the above figure include UI, Host, and SOA servers.

Security Stacks components such as OAAM, OID, OES, outbound components such as BIP, IPM, Documaker, ATM and POS channels are also part of the environment view.

Each component can be further explored for details by clicking on the links provided for them.

7.1.2 UI

For UI, all the managed servers created under Weblogic cluster can be monitored. EM provides the following information for UI Cluster:

- Active Session about all Managed Servers
- CPU Usage
- Heap Usage
- Request Processing Time

Figure 7–2 UI Cluster in EM

ORACLE Enterprise Manager Cloud Control 13c	Interprise ▼ (◎) Targets ▼ ★ Eavorites ▼ (○) History ▼ 🔅 Setup ▼ 🔍 🌲 SYSMAN ▼ 🚥
↑ obpui_cluster1 0	📱 ofss310524 in oracle.co
🔚 🕼 WebLogic Cluster 👻 🕨 Startup 🔳 Shutdown 🔆 Create Blackout 🔅 End Blackout	Page Refreshed Nov 3, 2017 4:17:26 AM GMT 🕎
Server Performance	^ Metric Palette
Past 2 hours	Day 2 hours 15 minutes > Silder the
r ust 2 mouts	View View Search
Chart Set Default View View Vompare V	Hide Metric Palette 🕢 🛵 obpui_cluster1
	Availability
02:20 AM 02:30 02:40 02:50 03:00 03:10 03:20 03:30 03:40 November 03, 2017	03:50 04:00 04:10
10	× about counts
2 5	Active Sessions
1.5	View v Search Q
5 1.0 9 0.5	Certificate Monitoring
0.0	Connection Pool Metrics By Server
9000 19 2000	b Datasource Metrics copui server1:
2 500	Heap Usage (MB) EJB Cache Metrics By Server
02:20 AM 02:30 02:40 02:50 03:00 03:10 03:20 03:30 03:40 November 03, 2017	03:50 04:00 04:10 P EIB Transaction Metrics By Server
150	× obpui_server1: > JMS Destination Metrics
₩ 50	Time (ms)
: 30	→ → JMS Server Metrics

UI is hosted on WebLogic domain, so the EM target of UI machine is WebLogic domain. EM gives the following information for UI:

- Server Performance Statistics
- Up/Down Status
- List of deployed applications
- Incidents or Alerts; if any

The following figure displays the WebLogic domain for UI.

Figure 7–3 WebLogic Domain for UI

	Manager Cloud Control 13c	Interprise ▼ (③] Intgets ▼ ★ Envortes ▼ (③ History ▼ 🔅 Setup ▼ < 🌲 SYSMAN ▼
ui_domain 🚯		冒 ofss110524.in.orade.com
🔚 😸 WebLogic Domain 👻	Startup Shutdown	Page Refreshed Nov 3, 2017 4:21:28 AM GMT 🕎
Summary	General	
Administration Server Administration Server Nov 2, 2017 10:55:22 AM GMT WebLogic Domain Refreshed Servers 2 up	Administration Server Administration Server Host Listen Port SSL Listen Port WebLogic Domain Refreshed Version Domain Home JRF	AdminServer ofss310524.in.oracle.com 7001 7002 Nov 2, 2017 10:55:32 AM GMT 12:2:1:2.0 AscratcNtep/product/fmw/tuser_projects/domains/ui_domain Ful
Clusters	Incidents	0
1 up	Descendant Target Incidents Configuration Changes Diagnostic Findings Support Workbench Problems	0 34 0 \$ 0
Deployments		
~		

The performance metric includes metrics like CPU Utilization, Memory Utilization, Active Sessions and are default metrics provided by EM.

The following figure displays the metrics chart.

Figure 7–4 Metrics Chart



7.1.3 Host

For Host, all the managed servers created under Weblogic cluster can be monitored. EM provides the following information for Host Cluster:

- Active Session about all Managed Servers
- CPU Usage
- Heap Usage
- Request Processing Time

Figure 7–5 Host Cluster in EM



Similar to UI, Host is also deployed on WebLogic domain and has similiar metrics like UI. The following figure displays the host target in EM.

Figure 7–6 Host Target in EM

OR	ACLE [®] Ente	prise N	lanager Cloud Control 13c			Enterprise V	<u> </u>	★ <u>Favorites</u> ▼	(History ▼	Setu	् 🌢	SYSMAN ¥
_	host_domain (1	ofss310519.in.oracle.co
t=	3	•	Startup >>>						0	Page Refr	eshed Nov 3, 3	2017 5:59:34 AM GMT 👈
Sumn	nary		General									
	1 Admin Ser	/er	Administration Se	erver	AdminServer							
Nov 2	Administration Ser	ver 🕨	Administration Server	Host	ofss310519.in.oracle.com							
Web	Logic Domain Refres	ed	Lister	Port	7001							
		-	SSL Lister	Port	7002							
Serve	rs		WebLogic Domain Refre	shed	Nov 2, 2017 10:57:42 AM GMT							
			Ve	rsion	12.2.1.2.0							
	2 up	Þ	Domain H	lome	/scratch/app/product/fmw/user_projects/domains/host_domain							
				JRF	Full							
			Monitoring and Diagno	stics								
Clust	ers		Incid	lents	0							
			Descendant Target Incid	lents	01							
	1 us	►	Configuration Char	nges	48							
			Diagnostic Fir	ndings	0							
			Support Workbench Pro	blems	0							
Deplo	yments											
	-											
	1 Down	►										
	8 Up											
	*											

The following figure displays the metric charts.

Figure 7–7 Metrics Chart

ACLE Enterprise Manager Cloud Control 13c	Tuesburget Cherchert Cherchert Cherchert Cherchert
obphost_server1	📕 oftes310519.
🛃 WebLogic Sener 👻 🗼 Startup 📓 Shutdown 💥 Create Blackout 🖓 End Blackout	Page Refreshed Nov 3, 2017 5:19:57 AM
ormance Summary	
2 hours	Day 2 hours 15 minutes > Silder
Set Default over Chart Set View + Congae +	Snow Metric Paulte
vzanadnimy 2017/AM (2015) (0130 (0136 (0140 (0146 (0150 (0136 (04.00 (04.00 (04.10 (04.15 (04.20 (04.25 (04.30 (04.40 (04.40	04.50 04.55 05.00 05.05 06.10 05.15
3eneral	
73	× EPU Utoge (%)
0.0	
	× Active Sessions
000 6 400	× Request Processing Time (ms)
0	
0.05	× Requests (per minute)
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Vemory	
6,000	×
2,000	Meap Usage (MB)
0	

7.1.4 SOA

SOA server is deployed on WebLogic domain where the SOA processes are deployed.

The process list can be seen in the list of deployed applications. The other metrics remain same as for WebLogic domain in EM. The following figure displays the process list.

Figure 7–8 Viewing Process List

ORACLE Enterprise Manager Cloud Control 13c	Enterprise V	<u>_</u>	rgets 🔻	Eavorites	• 🕒	Hist <u>o</u> ry ▼	Ø <u>S</u> e	tup 🔻 🔍		SYSMAN 🔻 🔹
🕇 soa-infra (soa_server1) 🚯									📕 ofssi	8121918.in.oracle.co
🗄 👯 SOA Infrastructure 🔻 🕨 Startup 🔳 Shutdown 🌿 Create Blackout 🕓 End Black						(Page Refreshed I	lov 3, 2017 6	05:10 AM GMT 🖒
Home Deployed Composites Dehydration Store Performance Faults and Rejected Messages Error H										
Composite Table List of SOA Composites deployed on the SOA Infra. To trace a instance, select a Composite and dick Trace in Search Show Deployment Details									Comp	osite Heat Map
						SOA Com	ponent Ro	llup		
Composite		Status	Messages (per minute)	Errors (per minute)	Error Rate (%)	System Faults	Business Faults	Recoverable Faults	WS Policy Violations	Composite Instances
et all a default/com.ofss.fc.approval.submissionfinancialspi_submitfinancialcapture [1.0]		1	0.00	0.00	0.00	0	0	0	0	0 ^
et default/com.ofss.fc.approval.oreditdecisionspi_waivecollateralvaluation [1.0]		1	0.00	0.00	0.00	0	0	0	0	0
No default/com.ofss.fc.workflow.process.CapturePartyFinancials [1.0]		1	0.00	0.00	0.00	0	0	0	0	0
et default/com.ofss.fc.workflow.process.ProcessLoanRollover [1.0]		1	0.00	0.00	0.00	0	0	0	0	0
et default/com.ofss.fc.workflow.process.StructureDepositSolution [1.0]		1	0.00	0.00	0.00	0	0	0	0	0
et default/com.ofss.fc.workflow.process.ProcessCreditCardApplication [1.0]		1	0.00	0.00	0.00	0	0	0	0	0
og default/com.ofss.fc.approval.hardshipreliefrequestspi_applyhardshiprelief [1.0]		+	0.00	0.00	0.00	0	0	0	0	0
et default/com.ofss.fc.workflow.process.ProvisionIdentity [1.0]		1	0.27	0.00	0.00	0	0	0	0	4
et default/com.ofss.fc.workflow.process.OriginateInvestment [1.0]		1	0.00	0.00	0.00	0	0	0	0	0 🗸
Columns Hidden 4		L								

7.1.5 Security Stack (OID and OAM)

OID and OAM are also deployed as WebLogic domain.

Figure 7–9 OID WebLogic Domain



7.1.6 Document Generation Outbound Components (Documaker, BIP, IPM)

These are not part of the application, but we monitor these so as to detect the cause of failure in case the document generation fails at any point of time.

A webservice is invoked for generating the documents from the application with BIP as well as documaker. From EM, we check whether that webservice is up and running or not, which gives the status of these components. The following figure displays the status from EM.

Figure 7–10 Document Generation Status

OBP_T12_BIP_Service	Generic Service	1
OBP_T12_Documaker_Service	Generic Service	T
OBP_T12_HOST_Service	Generic Service	1
OBP_T12_IPM_Service	Generic Service	T

BIP is also deployed on WebLogic domain.

Figure 7–11 BIP Deployment

	anager Cloud Control 13c	Enterprise ▼	History V	🔅 Setup 🗸 🔍		SYS	лан 🗸	
bi_domain 🚯					📕 ofsi	31211	23.in.ora	cle.cor
🔚 🔚 WebLogic Domain 🔻	Startup Shutdown		C	Page Refreshed No	ov 3, 2017 12	:51:56	PM GMT	ð
Summary	Deployments							
1 Admin Server	View View View View View View View View View							
Administration Server						Incide	Ints	
WebLogic Domain Refreshed	hame		Status	Deployed On	•	8	A	•
	Application Deployments							^
Servers	∡ ﷺ adminservice(11.1.1)				0	0	0 0	
	adminservice(11.1.1)		1	bi_cluster	0	0	0 0	
2 Up	adminservice(11.1.1)		†	bi_server1	0	0	0 0	
	⊿ analytics				0	0	0 0	
	🔺 🤮 analytics		†	bi_cluster	0	0	0 0	
Clusters	analytics		†	bi_server1	0	0	0 0	
	∡ ﷺ asyncadminservice(11.1.1)				0	0	0 0	
	A Syncadminservice(11.1.1)		1	bi_cluster	0	0	0 0	
Up	asyncadminservice(11.1.1)		†	bi_server1	0	0	0 0	
-	⊿ ﷺ bi-actions				0	0	0 0	
	A 🤮 bi-actions		†	bi_cluster	0	0	0 0	
Deployments	Joi-actions		1	bi_server1	0	0	0 0	
	∡ ﷺ biadminservlet(11.1.1)				0	0	0 0	
44 up	∡ S biadminservlet(11.1.1)		1	bi_cluster	0	0	0 0	
						Deplo	yments	67

7.1.7 ATM and POS (Point Of Sales) Channels

ATM and POS work on socket listener mechanism.

So, for them to be up and running the port on which they listen should be up. In EM, to monitor these channels, check if the port is listening.

The following figure displays the status from EM.

Figure 7–12 EM Monitoring



7.1.8 Outbound OFSAA call

The application calls OFSAA for calculation of economic cost. This is done through a webservice.

To monitor this, check if the webservice is up and running.

Figure 7–13 Web Monitoring



7.1.9 Monitoring Views

Monitoring views show the batch and application performance statistics along with server performance history. It consists of Batch Monitoring and Application Monitoring tabs, which show detailed view of batch performance and application performance statistics along with the server performance statistics on which they are running.

7.1.9.1 Batch Monitoring

Batch Monitoring shows detailed view for host and database server performance charts along with batch performance statistics.

The batch performance statistics are the details of the categories run in the application. The date for which category details are shown is the last run date. The categories include EOD, CutOff, Internal System EOD and BOD.

To get the details of a particular category, select it from the combo box. This will display the list of shells in the category in the table below. From the table, select the desired shell, the shell details provides the stream details of the selected shell.

DRACLE' Enterprise Manager Cloud	d Control 13c		E nterprise	• • O <u>T</u> argets •	★ <u>Favorites</u> ▼	History v Setup	🔹 🔍 🌲 s
OBP_T04_VIEW							📃 mum
OBP View 🔻						Pag	e Refreshed Nov 4, 2017 11:
Summary	Application Services User Interface Origination L	Jser Interface Integration	Batch Monitoring				
Status	EOD V BRN_GRP_1 V						
Current Status Up	shellName	duration	noOfAborts thro	ughput totalRec	ords processedCo	startTime	endTime
Availability % 100.0%	ac_action_relog_sh	00:00:00 0	0	0	0	03-nov-2017 10:16	03-nov-2017 10:16
	ac_bundle_exp_poller	00:00:00 0	0	0	0	03-nov-2017 16:47	03-nov-2017 16:47
	ac_bundle_fee_shell	00:00:03 0	206	14	14	03-nov-2017 10:16	03-nov-2017 10:16
	ac_stl_pyt_eod_shell	00:00:00 0	0	0	0	03-nov-2017 10:16	03-nov-2017 10:16
	as_eod_check	00:00:00 0	0	0	0	03-nov-2017 16:47	03-nov-2017 16:47
	dd_auto_statuschange	00:00:00 0	0	0	0	03-nov-2017 10:16	03-nov-2017 10:16
	dd_eod_action1	00:00:15 9	78	193	193	03-nov-2017 16:45	5 03-nov-2017 16:45
	dd_eod_action2	00:00:00 0	0	0	0	03-nov-2017 16:46	03-nov-2017 16:46
	dd_eod_action3	00:00:00 0	0	0	0	03-nov-2017 16:46	03-nov-2017 16:46
	dd_eod_action4	00:00:00 0	332	2	2	03-nov-2017 16:46	03-nov-2017 16:46
	dd_eod_action5	00:00:00 0	0	0	0	03-nov-2017 16:47	03-nov-2017 16:47
	shellName streamNumber stream	FirstRow 1 A streamCurren	R streamLastRov	v duration	processedCount	serverName	dbinstanceName
	Demand Deposit EC 1 1	194	193	15	193	obphost_server1	COBPB2

Figure 7–14 Database Server Info

The streams can run in different servers. To get the details of the performance of the server in which the stream is executed, select the stream. The charts below gives the performance summary of the server in which the stream is executed and the database performance.

The following figure displays the status from EM.

Figure 7–15 Batch Monitoring Status

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shelif	Name streamNumber	streamFirstRow	▲ streamCurrentR	streamLastRow	duration	processedCount	serverName	dbInstanceName
Demand	Deposit EC 1	1	194	193	15	193	obphost_server1	COBPB2
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DB C	PU Utilization(%) 📕 High 🔳 Low							
anost	CPO Offization(%)							
12	<u> </u>			No Data				
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Host	CPU Utilization(%)							
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Figure 7–16 Batch Configuration

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	50							
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	Active Sessions Using CPU							
	▲ Host Open JDBC Connections							
	4							-
	2	No Data						-
	15:00			16:00				-
	Open JDBC Connections High Low							
	d Host Active Threads							
	u	No Data						=
	19.00			16.00				
	Active Threads High							
	Low							
	# DB ThroughPut							

Figure 7–17 WebLogic Service Info



7.1.9.2 Application Monitoring

Application Monitoring shows detailed view of UI and host clusters and servers.

There are four separate tabs, namely Application Services, User Interface, Origination User Interface, and Integration.

7.1.9.2.1 Application Services

This section provides performance metrics for all application services executed on Host Server. Metrics include timing, alert, trending information, and so on.

For cluster details, click the Show Cluster Details link.

Click CLUSTER to view application metrics for the servers present in the HOST cluster. User can export the application metric data by clicking the Export To Excel button.

Reference Clour	d Control 13c						Enterprise ¥	01	irgets 🔻	* Eavorites	Histo	v Ö	<u>S</u> etup ▼	् 🌲	SYSM
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Summary	Application Services	User Interface	Origination User I	nterface	Integration	Batch Monit	toring								-
Status	Show Cluster Details														
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Figure 7–18 Application Metrics of Application Services for all servers in cluster

Expand CLUSTER to get a list of all the servers.

Each server can be further selected to get the details at the server level. On clicking the server, the application metrics are displayed in the table as shown in the following figure.

Figure 7–19 Application Metrics of Application Services for selected server

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	Fetch Product Group Det	BRN	OR232	83	103	59	6	false		85, 86, 59,	NEUTRAL	Transaction	obphost_se	ProductMar
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	Fetch Hierarchy For Cate	BRN	WL000	168	350	75	3	false		350, 79, 75	DOWNWAR	Transaction	obphost_se	LookupHier
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	Search	BRN	P1028	97.52	240	41	25	false		145, 123, 9	UPWARDS	Transaction	obphost_se	DocumentA
	Fetch Submission Summ	BRN	WL000	337.571428	498	168	7	false		168, 233, 3	UPWARDS	Transaction	obphost_se	Submission
	Fetch Parameters For Off	BRN	WL000	810.111111	13638	24	18	false		33, 24, 25,	NEUTRAL	Transaction	obphost_se	Submission
	Fetch Non Financial Instr	BRN	ACCT003	886	1156	616	2	false		1156, 616	DOWNWAR	Transaction	obphost_se	OperatingIr
	Fetch Accounts	BRN	WL000	106	178	34	2	false		178, 34	DOWNWAR	Transaction	obphost_se	Submission

The following table explains each column of the table present in the given snapshot:

Table 7–2 Details of the Application Metrics table of Application Services

Sr. No.	Column Name	Description
1	Name	Logical name of the application services

Sr. No.	Column Name	Description
2	Channel	Channel through which the transaction occurred Valid Values: Branch, ATM, and POS.
3	Task Code	Task code of the application page by which the transaction was triggered. Application module of which transaction is a part
4	Average Time	Average execution time of the application service
5	Max Time	Maximum time of execution of the application service
6	Min Time	Minimum time of execution of the application service
7	Success Count	Number of times application service executed successfully
8	Alert	Alert state of the application service
9	Alert User	Teller who performed the last alerted transaction
10	Trend Reference Queue	Execution time of last n transactions (n=5)
11	Trend	Trending of transaction Valid Values: Upwards, Downwards, Neutral
12	Transaction Type	Maximum time of execution of the transaction
13	Server Name	Server name
14	Actual Service Name	Service name of the transaction

7.1.9.2.2 User Interface

This section provides performance metrics for all major UI components executed on UI Server. Metrics include timing, alert, trending information, and so on.

For cluster details, click the Show Cluster Details link.

Click CLUSTER to view application metrics for the servers present in the UI cluster. User can export the application metric data by clicking the Export To Excel button.

Figure 7–20 Application Metric for all UI servers in cluster

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Expand CLUSTER to get a list of all the servers. Each server can be further selected to get the details at the server level. On clicking the server, the application metrics are displayed in the table as shown in the following figure.

Figure 7–21 Application Metrics of UI components for selected server

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	Config Compare View_UI	BRN	OPA005	7	7	7	1	false		7		Transactio	obpui_se	backing.Confi

The following table explains each column of the table present in the given snapshot:

Table 7–3 Details of the Application Metrics table of UI Components

Sr. No.	Column Name	Description
1	Name	Logical name of the UI component
2	Channel	Channel through which the transaction occurred

Sr. No.	Column Name	Description
		Valid Values: Branch, ATM, and POS
3	Task Code	Task code of the application page by which the transaction was triggered.
4	Average Lime	Average execution time of UI component
5	Max Time	Maximum time of execution of the UI component
6	Min Time	Minimum time of execution of the UI component
7	Success Count	Number of times UI component executed successfully
8	Alert	Alert state of the UI component
9	Alert User	Teller who performed the last alerted transaction
10	Trend Reference Queue	Execution time of last n transactions (n=5)
11	Trend	Trending of transaction Valid Values: Upwards, Downwards, Neutral
12	Transaction Type	Type of transaction
13	Server Name	UI Server name
14	Actual Service Name	Actual name of UI component

7.1.9.2.3 Origination User Interface

This section provides performance metrics for rendering all multistep train taskflows. The metrics capture the time taken for entering and exiting a particular step of the application form. If there are any host calls made to persist data before leaving a step or to fetch data from host server before entering a step, these metrics encapsulate those timings. Metrics include timing, alert, trending information, and so on.

For cluster details, click the Show Cluster Details link.

Click CLUSTER to view application metrics for the servers present in the UI cluster. User can export the application metric data by clicking the Export To Excel button.

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	Name Applicant StepExit Basic BeforeStepEntry	Channel BRN BRN	TaskC Av 10 3	/gTi	MaxTi 11118 3	MinTime 28 3	Succe 11 1	Alert false false	AlertU	Trend 33, 69, 28, 3	Trend DOWNWAR	Trans Transactio	Serve	Actual Appli Basic	 cantSt StepH	
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	Export To Excel Name Applicant StepExit Basic BeforeStepEntry Basic BeforeStepExit FinancialProfileTrainFinl StructureSolution StepEy	Channel BRN BRN BRN BRN BRN BRN	TaskC Av 10 10 0R097 63 0R097 0 0R097 80	/gTi 057.54545 33	MaxTi 111118 3 633 0 800	MinTime 26 3 633 0 800	Succe	Alert false false false false false	AlertU	Trend Image: Constraint of the second secon	Trend	Transactio Transactio Transactio Transactio Transactio	Serve r obpui_sen r obpui_sen r obpui_sen r obpui_sen r obpui_sen	Actual Appli Basic Basic Finar	 cantSt StepH StepH scialPh tureSo	
	Export To Excel Name Applicant StepExit Basic BeforeStepExit FinancialProfile TrainFinl StructureSolution StepEx Funding BeforeStepExit	Channel BRN BRN BRN BRN BRN BRN BRN	TaskC Av 10 10 3 3 OR097 65 OR097 0 0 80 OR097 12	rgTi 057.54545 33 00 211.5	MaxTi 111118 3 633 0 800 2176	MinTime 28 3 633 0 800 247	Succe I 11 1 1 1 1 1 1 1 2 2	Alert false false false false false false	AlertU	Trend Image: Constraint of the second secon	DOWNWAR	Transactio Transactio Transactio Transactio Transactio Transactio Transactio	Serve obpui_sen obpui_sen obpui_sen obpui_sen obpui_sen obpui_sen obpui_sen	Actual Appli Basic Basic Finar Struc Fund	 cantSt StepH StepH scialPn tureSo ingSte	
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	Export To Excel Name Applicant StepExit Basic BeforeStepExit FinancialProfile TrainFind StructureSolution StepEy Funding BeforeStepExit Instructions BeforeStepExit	Channel BRN BRN BRN BRN BRN BRN BRN BRN	TaskC Av 100 3 0R097 65 0R097 0 0R097 12 0R097 12 0R097 6 0 0 0 6	rgTi 057.54545 33 00 211.5	MaxTi 11118 3 633 0 800 2176 6 0	MinTime 28 3 633 0 800 247 6 0	Succe I 11 1 1 1 1 1 1 2 1 1 1 1	Alert false false false false false false false false false	AlertU	Trend 33, 69, 28, 3 3 633 0 800 2176, 247 6 0 0	DOWNWAR	Transactio Transactio Transactio Transactio Transactio Transactio Transactio Transactio Transactio	Serve r obpui_sen r obpui_sen r obpui_sen r obpui_sen r obpui_sen r obpui_sen r obpui_sen r obpui_sen r obpui_sen	Actual Appli Basic Basic Finar Struc Fund Instru	 stepH stepH totalPn tureSo ingSte ctionst stepHe	
	Export To Excel Name Applicant StepExit Basic BeforeStepEnty Basic BeforeStepExit FinancialPotile TrainFini StructureSolution StepE Funding BeforeStepExit Instructions BeforeStepExit Instructions BeforeStepExit Fees StepEnty Funding StepErty	Channel BRN BRN BRN BRN BRN BRN BRN BRN BRN	TaskC Avv 10 3 0R097 65 0R097 0 0R097 10 0R097 10 0R097 10 0R097 12 0R097 12 0R097 12 0R097 12	rgTi 057.54545 333 000 211.5	MaxTi 111118 3 633 0 800 2176 6 0 2438	MinTime 26 3 633 0 800 247 6 0 108	Succe I 11 1 1 1 1 1 1 2 1 1 2 1 1 2 1 2	Alert false false false false false false false false false false	AlertU	Trend 33, 69, 28, 3 3 633 0 800 2176, 247 6 0 438, 106	Trend DOWNWAR DOWNWAR DOWNWAR	Trans Transactic Transactic Transactic Transactic Transactic Transactic Transactic Transactic Transactic	Serve r obpul_sen r obpul_sen r obpul_sen r obpul_sen r obpul_sen r obpul_sen r obpul_sen r obpul_sen r obpul_sen	Actual Appli Basic Basic Basic Struc Fund Instru Fees Fund	cantSt StepH scialPr tureSo ingSte ctions StepHe stepHe stepHe	5
	Expert To Excel Apriloant StepExit Basic Befors StepExity Basic Befors StepExity FinancalProfile TrainFinl StructureSolution StepExit Instructions BeforeStepExit Instructions BeforeStepExit Fees StepEnty Funding StepEnty IndividualOncoardingErr	Channel BRN BRN BRN BRN BRN BRN BRN BRN BRN	TaskC Av 10 10 3 10 0R097 63 0R097 0 0R097 10 0R097 10 0R097 10 0 20 0R097 95 0R097 95	rgTi 0 057:54545 33 30 20 211.5 72 5.5	MaxTi 111118 3 633 0 800 2176 6 0 2176 6 438 144	MinTime 26 3 633 0 800 247 6 0 108 47	Succe I 11 1 1 1 1 1 2 1 1 2 2 2	Alert faise	AlertU	Trend Image: Constraint of the second secon	Trend DOWNWAR DOWNWAR DOWNWAR	Transactio Transactio Transactio Transactio Transactio Transactio Transactio Transactio Transactio Transactio Transactio Transactio	Serve r obpul_sen r obpul_sen r obpul_sen r obpul_sen r obpul_sen r obpul_sen r obpul_sen r obpul_sen r obpul_sen	Actual Appli Basic Basic Basic Basic Finar Struc Fund Instru Fees Fund Indivi	cantSt StepH StepH cialPh tureSo cionS StepHs stepHs dualQ	5
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Figure 7–22 Application Metrics of Origination UI Components for all UI servers in cluster

Expand 'CLUSTER' to get a list of all the servers. Each server can be further selected to get the details at the server level. On clicking the server, the application metrics are displayed in the table as shown in the following figure.

Figure 7–23 Application Metrics of Origination UI components for selected server

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	Name	Channel	TaskC	AvgTi	MaxTi	MinTime	Succe	Alert	AlertU	Trend	Trend	Trans	Serve	Actual	
	Applicant StepExit	BRN		1057.54545	11118	26	11 1	false		33, 69, 28,	DOWNWAR	Transaction	obpui_servi	ApplicantSt	•
	Basic BeforeStepEntry	BRN		3	3	3	1 1	false		3		Transaction	obpui_serve	BasicStepHi	
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	FinancialProfileTrainFin	BRN	OR097	0	0	0	1 1	false		0		Transaction	obpui_serve	FinancialPre	
	StructureSolution StepE:	BRN		800	800	800	1 1	false		800		Transaction	obpui_serve	StructureSo	
	Funding BeforeStepExit	BRN	OR097	876	2176	205	3 1	false		2176, 247,	DOWNWAR	Transaction	obpui_serve	FundingSte	
	Instructions BeforeStepE	BRN		6	6	6	1 1	false		6		Transaction	obpui_serve	Instructions5	
	Fees StepEntry	BRN		0	0	0	1 1	false		0		Transaction	obpui_serve	FeesStepHa	
	Funding StepEntry	BRN		233	438	106	3 1	false		438, 106, 1	DOWNWAR	Transaction	obpui_serve	FundingSte	
	IndividualOnboardingEn	BRN	OR097	95.5	144	47	2 1	false		144, 47	DOWNWAR	Transaction	obpui_serve	IndividualO	
	Personal BeforeStepEntr	BRN		0	0	0	12 1	false		0, 0, 0, 0, 0	NEUTRAL	Transaction	obpui_serve	PersonalSte	
	IndividualOnboardingPri	BRN		0	0	0	8 f	false		0, 0, 0, 0, 0	NEUTRAL	Transaction	obpui_serve	IndividualO	

The following table explains each column of the table present in the given snapshot:

Table 7–4 Details of the Application Metrics table of Origination UI Components

Sr. No.	Column Name	Description
1	Name	Logical name of the multistep train taskflow component

Sr. No.	Column Name	Description
2	Channel	Channel through which the transaction occurred Valid Values: Branch, ATM, and POS.
3	Task Code	Task code of the application page by which the transaction was triggered. Application module of which transaction is a part
4	Average Time	Average execution time
5	Max Time	Maximum time of execution of the multistep train taskflow component
6	Min Time	Minimum time of execution of the multistep train taskflow component
7	Success Count	Number of times multistep train taskflow component executed successfully
8	Alert	Alert state of the multistep train taskflow component
9	Alert User	Teller who performed the last alerted transaction
10	Trend Reference Queue	Execution time of last n transactions (n=5)
11	Trend	Trending of transaction Valid Values: Upwards, Downwards, Neutral
12	Transaction Type	Type of transaction
13	Server Name	UI Server name
14	Actual Service Name	Actual name of multistep train taskflow component

7.1.9.2.4 Integration

This section provides performance metric for all outbound services called from Host Server. Metrics include timing, alert, trending information, and so on.

For cluster details, click the Show Cluster Details link.

Click CLUSTER to view application metrics for the servers present in the HOST cluster. User can export the application metric data by clicking the Export To Excel button.

Figure 7–24 Application Metrics of all outbound se	rvices called from all h	ost servers in cluster
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CBP View V Status Current Status Up Up Since Nov 2, 2017 6:37 pm IST Availability % 100.0%	Application Services Us Show Cluster Details	ser Interface	Origination	User Interface	Integratio	Batch M	SERVER						Page Refreshe	i Nov 4, 2017 11:13:4	42 AM IST 🌪
	Export To Excel														
	Name	Channel	TaskC	AvgTime	MaxTi	MinTime	Succe	Alert	AlertU	TrendR	TrendE	Transa	Server	Actual	100000
	CommonSecurityManage	BRN		9.11089448	2580	0	6134	false		1, 2, 2, 1, 1	NEUTRAL	Transaction	obphost_se	CommonSe	
	CommonSecurityManage	BRN		0	0	0	0					Transaction	obphost_se	CommonSe	
	Generate Set Of Docume	BRN		5976.85714	10267	4127	14	true	rishika	4138, 7190	UPWARDS	Transaction	obphost_se	Documaker	10000000
	Inquire User With Criteria	BRN		41.1428571	143	10	7	false		23, 29, 39,	DOWNWAR	Transaction	obphost_se	IdentityApp	

Expand it to get a list of all the servers. Each server can be further selected to get the details at the server level. On clicking the server, the application metrics are displayed in the table as shown in the following figure.

Figure 7–25 Application Metrics of all outbound services called from selected server

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Summary	Application Services Us	ser Interface	Origination	n User Interface	Integratio	n Batch M	lonitoring							
Status	Show Cluster Details													
Current Status 🕇 Up	SERVER													
Up Since Nov 2, 2017 6:37 pm IST	CLUSTER						_							
Availability % 100.0%	/T04_HOST_ofss3	10519_in_or	acle_com_hos	st_domain/host	_domain/obp	phost_server1								
	Export To Excel													
	Name	Channel	TaskC	AvgTime	MaxTi	MinTime	Succe	Alert	AlertU	TrendR	TrendE	Transa	Server	Actual
	CommonSecurityManage	BRN		9.01911132	2580	0	6279	false		1, 1, 0, 30,	DOWNWAR	Transaction	obphost_se	CommonSe
	CommonSecurityManage	BRN		0	0	0	0					Transaction	obphost_se	CommonSe
	Generate Set Of Docume	BRN		5976.85714	10267	4127	14	true	rishika	4138, 7190	UPWARDS	Transaction	obphost_se	Documaker
	Inquire User With Criteria	BRN		41.1428571	143	10	7	false		23, 29, 39,	DOWNWAR	Transaction	obphost_se	IdentityApp

The following table explains each column of the table present in the given snapshot:

Table 7–5 Details of the Application Metrics table of all Outbound Services

Sr. No.	Column Name	Description
1	Name	Logical name of the Outbound services
2	Channel	Channel through which the transaction occurred Valid Values: Branch, ATM, and POS.

Sr. No.	Column Name	Description
3	Task Code	Task code of the application page by which the transaction was triggered. Application module of which transaction is a part
4	Average Time	Average execution time
5	Max Time	Maximum time of execution of the outbound service
6	Min Time	Minimum time of execution of the outbound service
7	Success Count	Number of times outbound service executed successfully
8	Alert	Alert state of the outbound service
9	Alert User	Teller who performed the last alerted transaction
10	Trend Reference Queue	Execution time of last n transactions (n=5)
11	Trend	Trending of transaction Valid Values: Upwards, Downwards, Neutral
12	Transaction Type	Maximum time of execution of the transaction
13	Server Name	Server name
14	Actual Service Name	Service name of the transaction

8 Configuration Export-Import Operations

This chapter gives an insight to the Configuration Export-Import operations.

8.1 Objective

Config operations include exporting business configurations, from one environment, to DB or file and importing these configurations in another environment, thus replicating the entire data with the golden copy.

Compare Business Configurations (OPA005) page provides the UI to compare the entities present in two environments on the basis of the data attributes.

Suppose R1 is an environment where the teller has maintained an entity, say currency AUD and in R2 environment the teller wants the exact copy of R1. The Import Export operations allows the user to export a single entity or all entities of a taskcode and can replicate the working environment with the exported version of data very effectively.

The overall Config operations are divided into five parts, each part representing an operation with its specific functionality. The user has the option to invoke any of the operation to get the required work done.

8.2 Export

This operation aims at exporting a business configuration of a taskcode to the configured location. It stores the serializable response of the entity. When export operation is invoked, data gets exported to the database or file as per configuration.

This operation can be carried out as a webservice call for the Export operation of the specific taskcode whose page level configuration has not been done.

8.3 Import

This operation aims at replicating the entity of target environment with exported data from a source environment. It retrieves the serializable response of the entity from database or file as per configuration and de-serializes the response to replicate the entity in target environment. When import operation is performed, it fetches the response from the source environment database and inserts/updates in the target environment.

8.4 Export All

This operation aims at exporting all the entities of a given taskcode. So that the same can be replicated in other environment. It is carried out through a web service call, by invoking the fetchAllAndExport method of ExportImportApplicationService. The request parameters are sessionContext, taskCode.

Export Request

Export request xml is provided below:

```
- <soapenv:Envelope xmlns:soapenv="http://
schemas.xmlsoap.org/soap/envelope/"
xmlns:exp="http://eximp.service.ops.app.fc.ofss.com/ExportImportAp
plicationService" xmlns:con="http:// context.app.fc.ofss.com"
xmlns:exc="http://exception.infra.fc.ofss.com">
```

```
<soapenv:Header />
- <soapenv:Body>
- <exp:fetchAllAndExportExportImport>
- <exp:sessionContext>
<con:bankCode>48</con:bankCode>
<con:businessUnit>MODELBANK</con:businessUnit>
<con:channel>BRN</con:channel>
<con:marketEntity>MODEL01</con:marketEntity>
<con:postingDateText>20130228000000</con:postingDateText>
<con:targetUnit>MODELBANK</con:targetUnit>
<con:transactionBranch>8542</con:transactionBranch>
<con:userId>OFSSUser</con:userId>
</exp:sessionContext>
<exp:taskCode>PM031</exp:taskCode>
</exp:fetchAllAndExportExportImport>
</soapenv:Body>
</soapenv:Envelope>
```

Export Response

Once this service is invoked with the above request, it fetches the configVersionNo of the exported data in response which is the version number with which Export All was performed.

```
- <S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/">
- <S:Body>
- <ns11:fetchAllAndExportExportImportResponse
xmlns:ns11="http://eximp.service.ops.app.fc.ofss.com/ExportImportA
pplicationService" xmlns:ns10="http://fact.enumeration.fc.ofss.com"
xmlns:ns9="http://enumeration.fc.ofss.com"
xmlns:exceptioninfra="http://exception.infra.fc.ofss.com"
xmlns:datatype="http://datatype.fc.ofss.com"
xmlns:contextapp="http://context.app.fc.ofss.com"
xmlns:dtocoreseedopsapp="http://dto.core.seed.ops.app.fc.ofss.com"
xmlns:dtocommondomainframework="http://dto.common.domain.framework
.fc.ofss.com"
xmlns:errorvalidationinfra="http://error.validation.infra.fc.ofss.
com" xmlns:opsapp="http://ops.app.fc.ofss.com"
xmlns:responseservice="http://response.service.fc.ofss.com">
- <ns11:return>
<responseservice:configVersionId>104</responseservice:configVersio
nId>
- <responseservice:status>
<responseservice:errorCode>0</responseservice:errorCode>
<responseservice:extendedReply />
<responseservice:internalReferenceNumber>2016075018875027</respons
eservice:internalReferenceNumber>
<responseservice:isOverriden>false</responseservice:isOverriden>
```

```
<responseservice:isServiceChargeApplied>false</responseservice:isS
erviceChargeApplied>
- <responseservice:postingDate>
<datatype:dateString>20130228000000</datatype:dateString>
<datatype:month>2</datatype:month>
<datatype:monthDate>228</datatype:monthDate>
<datatype:monthDateTime>228000000</datatype:monthDateTime>
<datatype:timestamp>2013-02-28T00:00:00+05:30</datatype:timestamp>
<datatype:year>2013</datatype:year>
</responseservice:postingDate>
<responseservice:replyCode>0</responseservice:replyCode>
<responseservice:replyText>Operation completed
successfully.</responseservice:replyText>
<responseservice:spReturnValue>0</responseservice:spReturnValue>
</responseservice:status>
</ns11:return>
</ns11:fetchAllAndExportExportImportResponse>
</S:Body>
</S:Envelope>
```

The user can import the required data based on this version number.

8.5 Import All

This operation aims at importing the record for the given taskCode and configVersionNo in the target environment. This method fetches the exported record based on versionNo and taskCode and tries to update if the records exist, else create the new records.

This is carried out by making a web service call to importAll method of ExportImportApplicationService with taskCode, versionNo as input. The request and response xml are as attached.

Import Request

```
- <soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:exp="http://eximp.service.ops.app.fc.ofss.com/ExportImportAp
plicationService" xmlns:con="http://context.app.fc.ofss.com"
xmlns:exc="http://exception.infra.fc.ofss.com">
<soapenv:Header />
- <soapenv:Body>
- <exp:importAllExportImport>
- <exp:sessionContext>
<con:bankCode>48</con:bankCode>
<con:businessUnit>MODELBANK</con:businessUnit>
<con:channel>BRN</con:channel>
<con:marketEntity>MODEL01</con:marketEntity>
<con:postingDateText>20130228000000</con:postingDateText>
<con:targetUnit>MODELBANK</con:targetUnit>
<con:transactionBranch>8542</con:transactionBranch>
<con:userId>OFSSUser</con:userId>
</exp:sessionContext>
```

```
<exp:taskCode>PM031</exp:taskCode>
<exp:versionNo>104</exp:versionNo>
</exp:importAllExportImport>
</soapenv:Body>
</soapenv:Envelope>
```

Import Respose

```
- <S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/">
- <S:Body>
- <ns5:importAllExportImportResponse
xmlns="http://enumeration.fc.ofss.com"
xmlns:ns2="http://fact.enumeration.fc.ofss.com"
xmlns:ns3="http://context.app.fc.ofss.com"
xmlns:ns4="http://exception.infra.fc.ofss.com"
xmlns:ns5="http://eximp.service.ops.app.fc.ofss.com/ExportImportAp
plicationService"
xmlns:ns6="http://dto.common.domain.framework.fc.ofss.com"
xmlns:ns7="http://datatype.fc.ofss.com"
xmlns:ns8="http://ops.app.fc.ofss.com"
xmlns:ns9="http://response.service.fc.ofss.com"
xmlns:ns10="http://error.validation.infra.fc.ofss.com"
xmlns:ns11="http://dto.core.config.app.fc.ofss.com">
- <ns5:return>
<ns9:errorCode>0</ns9:errorCode>
<ns9:extendedReply />
<ns9:internalReferenceNumber>2012132010145535</ns9:internalReferen
ceNumber>
<ns9:isOverriden>false</ns9:isOverriden>
<ns9:isServiceChargeApplied>false</ns9:isServiceChargeApplied>
- <ns9:postingDate>
<ns7:month>4</ns7:month>
<ns7:monthDate>425</ns7:monthDate>
<ns7:monthDateTime>425000000</ns7:monthDateTime>
<ns7:timestamp>2012-04-25T00:00:00+05:30</ns7:timestamp>
<ns7:year>2012</ns7:year>
</ns9:postingDate>
<ns9:replyCode>0</ns9:replyCode>
<ns9:replyText>Operation completed successfully.</ns9:replyText>
<ns9:spReturnValue>0</ns9:spReturnValue>
</ns5:return>
</ns5:importAllExportImportResponse>
</S:Body>
</S:Envelope>
```

8.6 Config Compare

This operation is used to compare Domain Objects, with same key, for a given taskCode. It aims at comparing the entities from two databases which are termed as TO and FROM database. The comparison is

such as it contains following information:

Present only in TO database (presently working environment)

Present only in FROM database (configurable DB environment)

Present in both, but data is different

In the whole set of operations, Export and Import can be performed either by screen or by webservice. For performing import using DB datastore, the reference DataSource needs to be configured in the target environment (the reference datasource is initially configured at the time of installation), which points to the data base where export has been performed. For ExportAll and ImportAll there is a common service ExportImportApplicationService which have the operation to perform the duties.

8.7 Data Store Configuration

The Data Store for Config operations can be configured to either Database or File. The user has the option to choose any one of the two data store configurations. The exported response will be stored in database or file as per this configuration.

8.7.1 DB Data Store

This configuration stores the exported data to database. For using this configuration, following changes have to be made:

1. In FLX_FW_CONFIG_ALL_B table, maintain DataSourceType=File

select *from flx_fw_config_all_b where category_id='DataSourceDestination' and prop_ id='DataSourceType'

Note

No separate configuration is required for export and import in case of DB Data Store.

8.7.2 File Data Store

This configuration stores the exported data to file. For using this configuration, following changes have to be made:

1. In FLX_FW_CONFIG_ALL_B table, maintain DataSourceType=FILE.

select * from flx_fw_config_all_b where category_id='DataSourceDestination' and prop_ id='DataSourceType'

2. Set the location of system property **fc.io.dir** in **setDomainEnv.sh** to a valid directory.

Figure 8–1 File Data Store

🧊 /scratch/app/product/fmw/user_projects/domains/host_domain/bin/setDomainEnv.sh - OCH_HOST_10.180.5.23																							
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Le=\$	(logE:	rors	ToCo	onso	leF	lag]	} -D	fc.i	lo.di	ir=/	scr	atch	/app	/pro	duct/fmw	/obp:	insta	11/ol	op/E	xpoi	rt_I	mport	
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8.7.2.1 Configuration for Export

The configuration for export requires the following changes:

1. Set **ExportLoggingPath** variable in **FLX_FW_CONFIG_ALL_B** to the directory where the exported files are needed to be stored. This is relative path with respect to **fc.io.dir/runarea/BusinessUnit**.

select * from flx_fw_config_all_b where category_id='DataSourceDestination' and prop_ id='ExportLoggingPath'.

If **fc.io.dir** is set to /scratch/app/product/fmw/obpinstall/obp/Export_Import, **ExportLoggingPath** is set to **export** and **business unit** is **DEMO_BANK**, then the files will be stored at /scratch/app/product/fmw/obpinstall/obp/Export_Import/runarea/DEMO_BANK/export.

8.7.2.2 Configuration for Import

The configuration for import requires the following changes:

1. Set **ImportLoggingPath** variable in **FLX_FW_CONFIG_ALL_B** to the directory from where the exported response has to imported.

select * from flx_fw_config_all_b where category_id='DataSourceDestination' and prop_ id='ImportLoggingPath'

/scratch/app/product/fmw/obpinstall/obp/Export_Import/runarea/DEMO_BANK/export will be set as **ImportLoggingPath** in our case.

8.8 How to Export Records

Export Operations can be performed using screen or webservice. This operation can be used to export either a single record or multiple records based on the requirement.

In case of DB Data Store, exported data is stored in **flx_ops_config_data_item** and for File Data Store, exported files are generated at the path specified for export configuration. For more information, see Chapter 8.7 Data Store Configuration.
8.8.1 Exporting Single Record

This operation is used to export single record of an entity.

Let us assume the configuration is done for **DATABASE**, so the data gets stored in **flx_ops_config_data_ item** table of the source database. The entity inquiry response gets stored as a serialized byte into the database.

Export operation can be carried out as a webservice call for the export operation of the specific taskcode. A single record of business configuration can be exported using the service <BusinessConfiguration>ApplicationService, which provides a 'fetch<BusinessConfiguration>AndExport' method.

The request parameters to this service are:

- SessionContext
- <BusinessConfiguration>DTO Representing the key of the record to be exported.

In response of the service call, it returns '**configVersionNo**'. This 'configVersionNo' will be used to import this record into the target environment.

Sample request and response are as follows:

Export Single Request

```
- <soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:act="http://action.service.ep.app.fc.ofss.com/ActivityEventA
ctionApplicationService" xmlns:con="http://context.app.fc.ofss.com"
xmlns:exc="http://exception.infra.fc.ofss.com"
xmlns:dto="http://dto.common.domain.framework.fc.ofss.com"
xmlns:dat="http://datatype.fc.ofss.com"
xmlns:act1="http://action.dto.ep.app.fc.ofss.com"
xmlns:rule="http://rule.action.dto.ep.app.fc.ofss.com"
xmlns:sub="http://subscriber.action.dto.ep.app.fc.ofss.com">
<soapenv:Header />
- <soapenv:Body>
- <act:fetchActivityEventActionAndExportActivityEventAction>
- <!-- Optional:
-->
- <act:sessionContext>
<con:bankCode>08</con:bankCode>
<con:businessUnit>OBP BU</con:businessUnit>
<con:channel>BRN</con:channel>
<con:marketEntity>SUN01</con:marketEntity>
<con:postingDateText>20130228000000</con:postingDateText>
<con:targetUnit>OBP BU</con:targetUnit>
<con:transactionBranch>089999</con:transactionBranch>
<con:userId>OFSSUser</con:userId>
</act:sessionContext>
- <!-- Optional:
-->
- <act:activityEventActionDTO>
```

```
- <act1:keyDTO>
- <!-- Optional:
-->
<act1:actionId>A</act1:actionId>
- <!-- Optional:
-->
<actl:activityId>com.ofss.fc.domain.lcm.batch.service.BatchCovenan
tService.processNotificationForCompliance</act1:activityId>
- <!-- Optional:
-->
<act1:eventId>LM STATUS COV</act1:eventId>
</act1:keyDTO>
</act:activityEventActionDTO>
</act:fetchActivityEventActionAndExportActivityEventAction>
</soapenv:Body>
</soapenv:Envelope>
```

Export Single Response

```
- <S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/">
- <S:Header>
<work:WorkContext
xmlns:work="http://oracle.com/weblogic/soap/workarea/">r00ABXdWABx
3ZWJsb2dpYy5hcHAub2JwLXdlYnNlcnZpY2VzAAAA1gAAACN3ZWJsb2dpYy53b3JrY
XJlYS5TdHJpbmdXb3JrQ29udGV4dAAJMi4yLjAuMC4wAAA=</work:WorkContext>
</S:Header>
- <S:Body>
<ns14:fetchActivityEventActionAndExportActivityEventActionResponse
xmlns:ns14="http://action.service.ep.app.fc.ofss.com/ActivityEvent
ActionApplicationService"
xmlns:ns13="http://ep.enumeration.fc.ofss.com"
xmlns:ns12="http://enumeration.fc.ofss.com"
xmlns:exceptioninfra="http://exception.infra.fc.ofss.com"
xmlns:validationdtoapp="http://validation.dto.app.fc.ofss.com"
xmlns:ruleactiondtoepapp="http://rule.action.dto.ep.app.fc.ofss.co
m" xmlns:datatype="http://datatype.fc.ofss.com"
xmlns:contextapp="http://context.app.fc.ofss.com"
xmlns:dtocommondomainframework="http://dto.common.domain.framework
.fc.ofss.com"
xmlns:errorvalidationinfra="http://error.validation.infra.fc.ofss.
com" xmlns:actiondtoepapp="http://action.dto.ep.app.fc.ofss.com"
xmlns:responseservice="http://response.service.fc.ofss.com"
xmlns:userdtosmsapp="http://user.dto.sms.app.fc.ofss.com"
xmlns:subscriberactiondtoepapp="http://subscriber.action.dto.ep.ap
p.fc.ofss.com">
- <ns14:return>
<responseservice:configVersionId>187</responseservice:configVersio
nId>
```

```
- <responseservice:status>
<responseservice:errorCode>0</responseservice:errorCode>
<responseservice:extendedReply />
<responseservice:internalReferenceNumber>2016305031622005</respons
eservice:internalReferenceNumber>
<responseservice:isOverriden>false</responseservice:isOverriden>
<responseservice:isServiceChargeApplied>false</responseservice:isS
erviceChargeApplied>
- <responseservice:postingDate>
<datatype:dateString>20130228000000</datatype:dateString>
</responseservice:postingDate>
<responseservice:replyCode>0</responseservice:replyCode>
<responseservice:replyText>Operation completed
successfully.</responseservice:replyText>
<responseservice:spReturnValue>0</responseservice:spReturnValue>
</responseservice:status>
- <actiondtoepapp:activityEventActionDTO>
```

<dtocommondomainframework:auditSequence>1</dtocommondomainframewor
k:auditSequence>

<dtocommondomainframework:createdBy>ArvindKu</dtocommondomainframe
work:createdBy>

```
- <dtocommondomainframework:creationDate>
```

<datatype:dateString>20130809000000</datatype:dateString>

```
</dtocommondomainframework:creationDate>
```

```
<dtocommondomainframework:generatedPackageId>false</dtocommondomai
nframework:generatedPackageId>
```

```
<dtocommondomainframework:lastUpdatedBy>OFSSUser</dtocommondomainf
ramework:lastUpdatedBy>
```

```
- <dtocommondomainframework:lastUpdatedDate>
```

```
<datatype:dateString>20140721162124</datatype:dateString>
```

```
</dtocommondomainframework:lastUpdatedDate>
```

```
<dtocommondomainframework:version>2</dtocommondomainframework:vers
ion>
```

```
<actiondtoepapp:alertName>Covenant Status
Complied</actiondtoepapp:alertName>
```

- <actiondtoepapp:alertTemplate>

<dtocommondomainframework:auditSequence>1</dtocommondomainframewor
k:auditSequence>

<dtocommondomainframework:generatedPackageId>false</dtocommondomai
nframework:generatedPackageId>

```
<dtocommondomainframework:version>1</dtocommondomainframework:vers
ion>
- <actiondtoepapp:keyDTO>
<actiondtoepapp:id>1</actiondtoepapp:id>
</actiondtoepapp:keyDTO>
<actiondtoepapp:importance>CRITICAL</actiondtoepapp:importance>
```

<actiondtoepapp:language>ENG</actiondtoepapp:language>

<actiondtoepapp:name>Email Template</actiondtoepapp:name>

<actiondtoepapp:urgency>HIGH</actiondtoepapp:urgency>

</actiondtoepapp:alertTemplate>

<actiondtoepapp:alertType>MANDATORY</actiondtoepapp:alertType>

- <actiondtoepapp:decisionAgent>

<dtocommondomainframework:auditSequence>1</dtocommondomainframework:auditSequence>

<dtocommondomainframework:generatedPackageId>false</dtocommondomai
nframework:generatedPackageId>

```
<dtocommondomainframework:version>1</dtocommondomainframework:vers
ion>
```

```
- <ruleactiondtoepapp:keyDTO>
```

```
<ruleactiondtoepapp:id>0</ruleactiondtoepapp:id>
```

```
</ruleactiondtoepapp:keyDTO>
```

```
- <ruleactiondtoepapp:rule>
```

<dtocommondomainframework:auditSequence>1</dtocommondomainframework:auditSequence>

```
<dtocommondomainframework:generatedPackageId>false</dtocommondomai
nframework:generatedPackageId>
```

```
<dtocommondomainframework:version>1</dtocommondomainframework:vers
ion>
```

```
<ruleactiondtoepapp:description>Invokes the default
rule</ruleactiondtoepapp:description>
<ruleactiondtoepapp:keyDTO />
<ruleactiondtoepapp:name>defaultRule</ruleactiondtoepapp:name>
```

```
<ruleactiondtoepapp:ruleClass>com.ofss.fc.domain.ep.service.action
.rule.DefaultRuleHandler</ruleactiondtoepapp:ruleClass>
```

```
<ruleactiondtoepapp:ruleEngine>INTERNAL</ruleactiondtoepapp:ruleEngine>
```

```
</ruleactiondtoepapp:rule>
```

```
</actiondtoepapp:decisionAgent>
```

```
- <actiondtoepapp:expiryDate>
```

<datatype:dateString>20991231000000</datatype:dateString>

```
</actiondtoepapp:expiryDate>
<actiondtoepapp:isConditional>false</actiondtoepapp:isConditional>
<actiondtoepapp:isRetryAllowed>true</actiondtoepapp:isRetryAllowed>
<actiondtoepapp:isTransactional>false</actiondtoepapp:isTransactio</pre>
nal>
- <actiondtoepapp:keyDTO>
<actiondtoepapp:actionId>A</actiondtoepapp:actionId>
<actiondtoepapp:activityId>com.ofss.fc.domain.lcm.batch.service.Ba
tchCovenantService.processNotificationForCompliance</actiondtoepap
p:activityId>
<actiondtoepapp:eventId>LM STATUS COV</actiondtoepapp:eventId>
</actiondtoepapp:keyDTO>
<actiondtoepapp:maxRetryCount>2</actiondtoepapp:maxRetryCount>
- <actiondtoepapp:recipientMessageTemplates>
<dtocommondomainframework:auditSequence>1</dtocommondomainframewor</pre>
k:auditSequence>
<dtocommondomainframework:generatedPackageId>false</dtocommondomai</pre>
nframework:generatedPackageId>
<dtocommondomainframework:version>1</dtocommondomainframework:vers</pre>
ion>
<subscriberactiondtoepapp:amount>0</subscriberactiondtoepapp:amoun
t >
<subscriberactiondtoepapp:bankerType>NA</subscriberactiondtoepapp:
bankerType>
<subscriberactiondtoepapp:conditional>false</subscriberactiondtoep
app:conditional>
- <subscriberactiondtoepapp:decisionAgent>
<dtocommondomainframework:auditSequence>1</dtocommondomainframewor</pre>
k:auditSequence>
<dtocommondomainframework:generatedPackageId>false</dtocommondomai</pre>
nframework:generatedPackageId>
<dtocommondomainframework:version>1</dtocommondomainframework:vers</pre>
ion>
- <ruleactiondtoepapp:keyDTO>
<ruleactiondtoepapp:id>0</ruleactiondtoepapp:id>
</ruleactiondtoepapp:keyDTO>
- <ruleactiondtoepapp:rule>
```

```
<dtocommondomainframework:auditSequence>1</dtocommondomainframewor
k:auditSequence>
```

<dtocommondomainframework:generatedPackageId>false</dtocommondomai
nframework:generatedPackageId>

<dtocommondomainframework:version>1</dtocommondomainframework:vers
ion>
<ruleactiondtoepapp:description>Invokes the default
rule</ruleactiondtoepapp:description>
<ruleactiondtoepapp:keyDTO />
<ruleactiondtoepapp:name>defaultRule</ruleactiondtoepapp:name>

<ruleactiondtoepapp:ruleClass>com.ofss.fc.domain.ep.service.action .rule.DefaultRuleHandler</ruleactiondtoepapp:ruleClass>

<ruleactiondtoepapp:ruleEngine>INTERNAL</ruleactiondtoepapp:ruleEn gine> </ruleactiondtoepapp:rule>

</subscriberactiondtoepapp:decisionAgent>

- <subscriberactiondtoepapp:keyDTO>

<subscriberactiondtoepapp:actionId>A</subscriberactiondtoepapp:actionId>

```
<subscriberactiondtoepapp:activityId>com.ofss.fc.domain.lcm.batch.
service.BatchCovenantService.processNotificationForCompliance</sub
scriberactiondtoepapp:activityId>
```

<subscriberactiondtoepapp:destinationType>EMAIL</subscriberactiond toepapp:destinationType> <subscriberactiondtoepapp:eventId>LM_STATUS_ COV</subscriberactiondtoepapp:eventId> <subscriberactiondtoepapp:messageTemplateId>LCM_Covenant status is Complied</subscriberactiondtoepapp:messageTemplateId>

```
<subscriberactiondtoepapp:subscriberType>PARTY</subscriberactiondt
oepapp:subscriberType>
```

```
<subscriberactiondtoepapp:subscriberValue>CUSTOMER</subscriberacti
ondtoepapp:subscriberValue>
</subscriberactiondtoepapp:keyDTO>
```

```
<subscriberactiondtoepapp:recipientType>INTERNAL</subscriberaction
dtoepapp:recipientType>
</actiondtoepapp:recipientMessageTemplates>
</actiondtoepapp:activityEventActionDTO>
</nsl4:return>
```

```
</nsl4:fetchActivityEventActionAndExportActivityEventActionRespons
e>
</S:Body>
</S:Envelope>
```

8.8.2 Exporting All Records

This operation is used to export all the entities of a given task code. The exported package can then be replicated into the target environment. All records of a Business configuration entity can be exported using the **FetchAllAndExport** method of **ExportImportApplicationService**.

The request parameters to this service are:

- SessionContext
- TaskCode

A 'configVersionNo' is returned in the response. This 'configVersionNo' will be used as an identifier to trigger an import into the target environment.

Sample request and response are as follows:

Export All Request

```
- <soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:exp="http://eximp.service.ops.app.fc.ofss.com/ExportImportAp
plicationService" xmlns:con="http://context.app.fc.ofss.com"
xmlns:exc="http://exception.infra.fc.ofss.com">
<soapenv:Header />
- <soapenv:Body>
- <exp:fetchAllAndExportExportImport>
- <!-- Optional:
-->
- <exp:sessionContext>
<con:bankCode>08</con:bankCode>
<con:businessUnit>OBP BU</con:businessUnit>
<con:channel>BRN</con:channel>
<con:marketEntity>SUN01</con:marketEntity>
<con:postingDateText>20130228000000</con:postingDateText>
<con:targetUnit>OBP BU</con:targetUnit>
<con:transactionBranch>089999</con:transactionBranch>
<con:userId>OFSSUser</con:userId>
</exp:sessionContext>
<exp:taskCode>AL04</exp:taskCode>
</exp:fetchAllAndExportExportImport>
</soapenv:Body>
</soapenv:Envelope>
```

Export All Response

- <S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/">
- <S:Header>

```
<work:WorkContext
xmlns:work="http://oracle.com/weblogic/soap/workarea/">r00ABXdWABx
3ZWJsb2dpYy5hcHAub2JwLXdlYnNlcnZpY2VzAAAA1gAAACN3ZWJsb2dpYy53b3JrY
XJlYS5TdHJpbmdXb3JrQ29udGV4dAAJMi4yLjAuMC4wAAA=</work:WorkContext>
</S:Header>
- <S:Body>
- <ns13:fetchAllAndExportExportImportResponse
xmlns:ns13="http://eximp.service.ops.app.fc.ofss.com/ExportImportA
pplicationService" xmlns:ns12="http://ops.enumeration.fc.ofss.com"
xmlns:ns11="http://fact.enumeration.fc.ofss.com"
xmlns:ns10="http://enumeration.fc.ofss.com"
xmlns:exceptioninfra="http://exception.infra.fc.ofss.com"
xmlns:validationdtoapp="http://validation.dto.app.fc.ofss.com"
xmlns:datatype="http://datatype.fc.ofss.com"
xmlns:contextapp="http://context.app.fc.ofss.com"
xmlns:dtocoreseedopsapp="http://dto.core.seed.ops.app.fc.ofss.com"
xmlns:dtocommondomainframework="http://dto.common.domain.framework
.fc.ofss.com"
xmlns:errorvalidationinfra="http://error.validation.infra.fc.ofss.
com" xmlns:opsapp="http://ops.app.fc.ofss.com"
xmlns:responseservice="http://response.service.fc.ofss.com">
- <ns13:return>
<responseservice:configVersionId>186</responseservice:configVersio
nId>
- <responseservice:status>
<responseservice:errorCode>0</responseservice:errorCode>
<responseservice:extendedReply />
<responseservice:internalReferenceNumber>2016305031622003</respons
eservice:internalReferenceNumber>
<responseservice:isOverriden>false</responseservice:isOverriden>
<responseservice:isServiceChargeApplied>false</responseservice:isS
erviceChargeApplied>
- <responseservice:postingDate>
<datatype:dateString>20130228000000</datatype:dateString>
</responseservice:postingDate>
<responseservice:replyCode>0</responseservice:replyCode>
<responseservice:replyText>Operation completed
successfully.</responseservice:replyText>
<responseservice:spReturnValue>0</responseservice:spReturnValue>
</responseservice:status>
</ns13:return>
</ns13:fetchAllAndExportExportImportResponse>
</S:Body>
</S:Envelope>
```

In case of DB Data Store, exported data is stored in **flx_ops_config_data_item** and for File Data Store, exported files are generated at the path specified for export configuration. For more information, see Chapter 8.7 Data Store Configuration.

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	SQL Dutrut Sta	distics						
*-# <b>4</b> ~~								
objects	select * from	a flx ops confi	ig data item where task co	de='PM011' and con:	fig ver no	='104' and operati	ion type='Exp	ort'
- Recent objects								
- Recycle bin	select * from	flx_ops_confi	ig_data_item where task_co	de='PM011' and con	fig_ver_no	='104' and operati	ion_type='Imp	ort'
Functions								
Procedures								
Packages								
Type bodies								
Triggers								
- 📄 Java sources	⊞ - & +	- / 88	🗛 🥖 🏫 🔻 🔺 🜉	🖀 🛍 🗸				
- 🔲 Jobs					I OTATUO	CONFIC VED NO	TACK CODE	EVCENTION
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- Queue tables	P I DRN	<dlud></dlud>	···· 04-00-2013 11.10.59 AW	Export	" success		PMUTT	
	0.001	(DLOD)	04.00.0010.11.10.00.444	E		104	D14011	
- Ubraries	2 BRN	<blob></blob>	··· 04-06-2013 11:16:59 AM	Export	·· success		PM011	
	2 BRN 3 BRN	<blob> <blob></blob></blob>	··· 04-06-2013 11:16:59 AM ··· 04-06-2013 11:16:59 AM	Export Export	success	104 104	PM011 PM011	
Libraries     Directories     Tables     Views	2 BRN 3 BRN 4 BRN	<blob> <blob> <blob></blob></blob></blob>	<ul> <li>04-06-2013 11:16:59 AM</li> <li>04-06-2013 11:16:59 AM</li> <li>04-06-2013 11:16:59 AM</li> </ul>	Export Export Export	success success success		PM011 PM011 PM011	
Libraries     Directories     Tables     Vews     Materialized views	2 BRN 3 BRN 4 BRN 5 BRN	<blob> <blob> <blob> <blob></blob></blob></blob></blob>	<ul> <li>04-06-2013 11:16:59 AM</li> </ul>	Export Export Export Export	SUCCESS SUCCESS SUCCESS SUCCESS	104 104 104 104 104	PM011 PM011 PM011 PM011	
Libraries     Directories     Tables     Wews     Metrialized views     Sequences	2 BRN 3 BRN 4 BRN 5 BRN 6 BRN	<blob> <blob> <blob> <blob> <blob> <blob></blob></blob></blob></blob></blob></blob>	<ul> <li>04-06-2013 11:16:59 AM</li> </ul>	Export Export Export Export Export	SUCCESS SUCCES	104 104 104 104 104	PM011 PM011 PM011 PM011 PM011	
Libraries     Directories     Tables     Materialized views     Sequences     Users	2 BRN 3 BRN 4 BRN 5 BRN 6 BRN 7 BRN	<blob> <blob> <blob> <blob> <blob> <blob></blob></blob></blob></blob></blob></blob>	<ul> <li>04-06-2013 11:16.59 AM</li> </ul>	Export Export Export Export Export Export	SUCCESS SUCCES		PM011 PM011 PM011 PM011 PM011 PM011	
Libraries     Libraries     Tables     Tables     Materialized views     Sequences     Libraries     Profiles	2 BRN 3 BRN 4 BRN 5 BRN 6 BRN 7 BRN 8 BRN	<blob> <blob> <blob> <blob> <blob> <blob> <blob></blob></blob></blob></blob></blob></blob></blob>	<ul> <li>04-06-2013 11:16:59 AM</li> </ul>	Export Export Export Export Export Export Export Export	SUCCESS SUCCES		PM011 PM011 PM011 PM011 PM011 PM011 PM011	
Libraries     Directories     Directories     Directories     Directories     Materialized views     Sequences     Directories     Directories     Directories     Directories     Directories	2 BRN 3 BRN 4 BRN 5 BRN 6 BRN 7 BRN 8 BRN 9 BRN	<blob> <blob> <blob> <blob> <blob> <blob> <blob> <blob> <blob></blob></blob></blob></blob></blob></blob></blob></blob></blob>	<ul> <li>04-06-2013 11:16:59 AM</li> </ul>	Export Export Export Export Export Export Export Export	SUCCESS SUCCES		PM011 PM011 PM011 PM011 PM011 PM011 PM011 PM011	
Lbraries     Directones     Tables     Tebles     Sequences     Sequences     Users     Reles     Sonoryms	2 BRN 3 BRN 4 BRN 5 BRN 6 BRN 7 BRN 8 BRN 9 BRN 10 BRN	<blob> <blob> <blob> <blob> <blob> <blob> <blob> <blob> <blob> <blob> <blob></blob></blob></blob></blob></blob></blob></blob></blob></blob></blob></blob>	<ul> <li>04-06-2013 11:16:59 AM</li> </ul>	Export Export Export Export Export Export Export Export Export Export	SUCCESS SUCCES		PM011 PM011 PM011 PM011 PM011 PM011 PM011 PM011 PM011	
Lbraries     Lbraries     Lbraries     Lbraries     Tables     Wers     Materialized views     Sequences     Porfiles     Porfiles     Roles     Socyman     Stabase Inks     Tababase Inks	2 BRN 3 BRN 4 BRN 5 BRN 6 BRN 7 BRN 8 BRN 9 BRN 10 BRN 11 BRN	<pre>&lt;8L0B&gt; &lt;8L0B&gt; &lt;8L0B&gt;</pre>	<ul> <li>04-06-2013 11:16:59 AM</li> </ul>	Export Export Export Export Export Export Export Export Export Export Export	SUCCESS SUCCES		PM011 PM011 PM011 PM011 PM011 PM011 PM011 PM011 PM011	
Lbraries     Lbraries     Lbraries     Lbraries     Tables     Materialized views     Sequences     Porfiles     Roles     Databes links     Databes links     Databes links     Databes links	2 BRN 3 BRN 4 BRN 5 BRN 6 BRN 7 BRN 8 BRN 9 BRN 10 BRN 11 BRN 12 BRN	<pre>&lt;8L08&gt; &lt;8L08&gt; &lt;8L08&gt;</pre>	<ul> <li>94-06-2013 11:16:59 AM</li> </ul>	Export Export Export Export Export Export Export Export Export Export Export Export	SUCCESS		PM011 PM011 PM011 PM011 PM011 PM011 PM011 PM011 PM011 PM011 PM011	
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### Figure 8–2 Exported Data

#### Figure 8–3 Exported Files

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ize  Include in library  Share with	Burn New folder				)E •	
Host_Workspace	^ Name	Date modified	Туре	Size		
HostWorkspace2014	ACCT010 ACCT010 130	6/30/2014 5:42 PM	File	44 KB		
JaPa	ACCT013 ACCT013 428	6/30/2014 6:47 PM	File	1 KB		
Java	AL03_AL03_182	6/30/2014 5:44 PM	File	575 KB		
Junit	AL04_AL04_342	6/30/2014 6:04 PM	File	274 KB		
📙 kanika	ATM001_ATM001_254	6/30/2014 5:46 PM	File	5 KB		
Links	ATM002_ATM002_414	6/30/2014 6:47 PM	File	4 KB		
logs	BR001_BR001_241	6/30/2014 5:46 PM	File	7 KB		
My Documents	BRM01_BRM01_403	6/30/2014 6:45 PM	File	12 KB		
New folder (2)	CAL01_CAL01_43	7/16/2014 3:45 PM	File	1 KB		
New_UL_Workspace	CAL02_CAL02_399	6/30/2014 6:45 PM	File	92 KB		
newlogs	CASA023_CASA023_117	7/10/2014 3:20 PM	File	8 KB		
UCH_Workspace	CASA0403_CASA0403_460	7/2/2014 3:13 PM	File	77 KB		
005	CNM01_CNM01_187	6/30/2014 5:44 PM	File	24 KB		
	CNIM03_CNIM03_347	6/30/2014 6:05 PM	File	49 KB		
Program Elec (-95) OLD	CNIM09_CNIM09_21	7/16/2014 11:28 AM	File	7 KB		
Research Files (100)_010	CNM11_CNM11_349	6/30/2014 6:06 PM	File	1 KB		
Program Priesoco	CS01_CS01_200	6/30/2014 5:45 PM	File	4 KB		
-22	C\$03_C\$03_466	7/3/2014 12:23 PM	File	64 KB		
125	CS06_CS06_176	6/30/2014 5:44 PM	File	7 KB		
Ruby Clients	CS10_CS10_4261	7/3/2014 6:36 PM	File	147 KB		
Softwarer	CS15_CS15_239	6/30/2014 5:46 PM	File	4 KB		
Study	CS16_CS16_364	6/30/2014 6:19 PM	File	27 KB		
Study Material	CS17_CS17_178	6/30/2014 5:44 PM	File	5 KB		
tempdir	CS21_CS21_4262	7/3/2014 7:10 PM	File	99 KB		
nunarea	CS22_CS22_206	6/30/2014 5:45 PM	File	10 KB		
Forescions	CS23_CS23_4264	7/3/2014 7:42 PM	File	22 KB		
lib	CS24_CS24_202	6/30/2014 5:45 PM	File	39 KB		
B OBP BU	CS26_CS26_217	6/30/2014 5:45 PM	File	5 KB		
ernort	CY01_CY01_201	6/30/2014 5:45 PM	File	42 KB		
le cules	CY02_CY02_235	6/30/2014 5:46 PM	File	8 KB		
	CY03_CY03_208	6/30/2014 5:45 PM	File	19 KB		

## 8.9 How to Import Records

Import Operations can be performed using webservice clients. This operation can be used to import either a single record or multiple records based on the requirement.

### 8.9.1 Importing Single Record

This operation is used to import single record of an configuration.

### 8.9.1.1 Using API Client

A single record of a business configuration entity can be imported using the **ExportImportApplicationService**, which provides an '**importAll**' method.

The request parameters to this service are:

- SessionContext
- TaskCode
- configVersionNo (from Export Single Record response)

The steps to import single record using API client are same as importing all records. These are mentioned in the further section.

Sample request and response are as below:

#### Import All Request

```
- <soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:exp="http://eximp.service.ops.app.fc.ofss.com/ExportImportAp
plicationService" xmlns:con="http://context.app.fc.ofss.com"
xmlns:exc="http://exception.infra.fc.ofss.com">
<soapenv:Header />
- <soapenv:Body>
- <exp:importAllExportImport>
- <!-- Optional:
-->
- <exp:sessionContext>
<con:bankCode>08</con:bankCode>
<con:businessUnit>OBP BU</con:businessUnit>
<con:channel>BRN</con:channel>
<con:marketEntity>SUN01</con:marketEntity>
<con:postingDateText>20130228000000</con:postingDateText>
<con:targetUnit>OBP BU</con:targetUnit>
<con:transactionBranch>089999</con:transactionBranch>
<con:userId>OFSSUser</con:userId>
</exp:sessionContext>
<exp:taskCode>AL04</exp:taskCode>
<exp:versionNo>186</exp:versionNo>
</exp:importAllExportImport>
</soapenv:Body>
</soapenv:Envelope>
```

#### Import All Response

```
- <S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/">
- <S:Header>
```

```
<work:WorkContext
```

```
xmlns:work="http://oracle.com/weblogic/soap/workarea/">r00ABXdWABx
3ZWJsb2dpYy5hcHAub2JwLXdlYnNlcnZpY2VzAAAA1gAAACN3ZWJsb2dpYy53b3JrY
XJ1YS5TdHJpbmdXb3JrQ29udGV4dAAJMi4yLjAuMC4wAAA=</work:WorkContext>
</S:Header>
```

```
- <S:Body>
```

```
- <ns13:importAllExportImportResponse
xmlns:ns13="http://eximp.service.ops.app.fc.ofss.com/ExportImportA
pplicationService" xmlns:ns12="http://ops.enumeration.fc.ofss.com"
xmlns:ns11="http://fact.enumeration.fc.ofss.com"
xmlns:ns10="http://enumeration.fc.ofss.com"
xmlns:exceptioninfra="http://exception.infra.fc.ofss.com"
xmlns:validationdtoapp="http://validation.dto.app.fc.ofss.com"
xmlns:datatype="http://datatype.fc.ofss.com"
xmlns:contextapp="http://context.app.fc.ofss.com"
xmlns:dtocoreseedopsapp="http://dto.core.seed.ops.app.fc.ofss.com"
xmlns:dtocommondomainframework="http://dto.common.domain.framework
.fc.ofss.com"
```

```
xmlns:errorvalidationinfra="http://error.validation.infra.fc.ofss.
com" xmlns:opsapp="http://ops.app.fc.ofss.com"
xmlns:responseservice="http://response.service.fc.ofss.com">
- <ns13:return>
<responseservice:errorCode>0</responseservice:errorCode>
<responseservice:extendedReply />
<responseservice:internalReferenceNumber>2016305031622004</respons
eservice:internalReferenceNumber>
<responseservice:isOverriden>false</responseservice:isOverriden>
<responseservice:isServiceChargeApplied>false</responseservice:isS
erviceChargeApplied>
<responseservice:replyCode>0</responseservice:replyCode>
<responseservice:spReturnValue>0</responseservice:spReturnValue>
</ns13:return>
</ns13:importAllExportImportResponse>
</S:Body>
</S:Envelope>
```

### 8.9.2 Importing All Records

This operation is used to import the records belonging to the given 'TaskCode' and 'configVersionNo' into the target environment. This method fetches the exported records based on the 'configVersionNo' and 'TaskCode', and upserts the same into the target environment. All records of a Business configuration entity can be imported using the ImportAII method of ExportImportApplicationService.

The request parameters to this service are:

- TaskCode
- ConfigVersionNo

For performing the import operation, the '**Config Data Source**' needs to be configured in the target environment, this datasource points to the database of the reference environments.

Sample request and response are as below:

#### Import All Request

```
<con:channel>BRN</con:channel>
<con:marketEntity>SUN01</con:marketEntity>
<con:postingDateText>20130228000000</con:postingDateText>
<con:targetUnit>OBP_BU</con:targetUnit>
<con:transactionBranch>089999</con:transactionBranch>
<con:userId>OFSSUser</con:userId>
</exp:sessionContext>
<exp:sessionContext>
<exp:taskCode>AL04</exp:taskCode>
</exp:wersionNo>186</exp:versionNo>
</exp:importAllExportImport>
</soapenv:Body>
</soapenv:Envelope>
```

#### Import All Response

```
- <S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/">
- <S:Header>
<work:WorkContext</pre>
```

```
xmlns:work="http://oracle.com/weblogic/soap/workarea/">r00ABXdWABx
3ZWJsb2dpYy5hcHAub2JwLXdlYnNlcnZpY2VzAAAA1gAAACN3ZWJsb2dpYy53b3JrY
XJ1YS5TdHJpbmdXb3JrQ29udGV4dAAJMi4yLjAuMC4wAAA=</work:WorkContext>
</S:Header>
```

```
- <S:Body>
```

```
- <ns13:importAllExportImportResponse
```

```
xmlns:ns13="http://eximp.service.ops.app.fc.ofss.com/ExportImportA
pplicationService" xmlns:ns12="http://ops.enumeration.fc.ofss.com"
xmlns:ns11="http://fact.enumeration.fc.ofss.com"
xmlns:ns10="http://enumeration.fc.ofss.com"
xmlns:exceptioninfra="http://exception.infra.fc.ofss.com"
xmlns:validationdtoapp="http://validation.dto.app.fc.ofss.com"
xmlns:datatype="http://datatype.fc.ofss.com"
xmlns:contextapp="http://context.app.fc.ofss.com"
xmlns:dtocoreseedopsapp="http://dto.core.seed.ops.app.fc.ofss.com"
xmlns:dtocommondomainframework="http://dto.common.domain.framework
.fc.ofss.com"
xmlns:errorvalidationinfra="http://error.validation.infra.fc.ofss.
com" xmlns:opsapp="http://ops.app.fc.ofss.com"
xmlns:responseservice="http://response.service.fc.ofss.com">
- <ns13:return>
<responseservice:errorCode>0</responseservice:errorCode>
```

```
<responseservice:extendedReply />
```

```
<responseservice:internalReferenceNumber>2016305031622004</respons
eservice:internalReferenceNumber>
<responseservice:isOverriden>false</responseservice:isOverriden>
<responseservice:isServiceChargeApplied>false</responseservice:isS
erviceChargeApplied>
<responseservice:replyCode>0</responseservice:replyCode>
```

```
<responseservice:spReturnValue>0</responseservice:spReturnValue>
```

```
</ns13:return>
</ns13:importAllExportImportResponse>
</S:Body>
</S:Envelope>
```

Database entry for imported response will be stored in **flx_ops_config_data_item**.

Figure 8–4 Importing Data Using SOAP UI - Storing Response

JPL/SQL Developer - obpdev01@PR	RODUCT - [SQL	Window - select * fr	rom flx_ops_config_data_item	where task_code='PM011'	and config_ve	r_no='104' and opera]			• X
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5	SQL Output	Statistics							
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Recent objects	select * f	from flx_ops_o	config_data_item whe	ere task_code='PM01	11' and cor	nfig_ver_no='104'	and operation	a_type='Export'	
Gere Copects	select * 1	from flx ops	config data item whe	ere task code='PM01	11' and co	nfig ver no='104'	and operation	type='Import'	•
E Generations		arom ran opo	contrag duota a com ante		and con	inty_out_ino_tor	and operation	-olbe ymporo	
Procedures									
Packages     Packages									
Types									
Type bodies									
Triggers	m la								
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Directories	3 <bl08< td=""><td>B&gt;</td><td>04-06-2013 11:31:54 AM</td><td>Import</td><td>· success ··</td><td>104</td><td>PM011</td><td></td><td>··· 8a3485</td></bl08<>	B>	04-06-2013 11:31:54 AM	Import	· success ··	104	PM011		··· 8a3485
Tables	4 <bl08< td=""><td>B&gt;</td><td>04-06-2013 11:31:54 AM</td><td>Import ···</td><td>success</td><td>· 104</td><td>PM011</td><td></td><td>··· 8a3485</td></bl08<>	B>	04-06-2013 11:31:54 AM	Import ···	success	· 104	PM011		··· 8a3485
Views     Materialized views	5 <bl08< td=""><td>B&gt;</td><td>04-06-2013 11:31:54 AM</td><td>Import</td><td>·· success ··</td><td>104</td><td>PM011</td><td></td><td>··· 8a3485</td></bl08<>	B>	04-06-2013 11:31:54 AM	Import	·· success ··	104	PM011		··· 8a3485
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Users	7 <bl08< td=""><td>B&gt;</td><td>04-06-2013 11:31:54 AM</td><td>Import</td><td>- success</td><td>104</td><td>PM011</td><td></td><td>··· 8a3485</td></bl08<>	B>	04-06-2013 11:31:54 AM	Import	- success	104	PM011		··· 8a3485
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	15 <bl08< td=""><td>B&gt;</td><td>04-06-2013 11:31:55 AM</td><td>Import ···</td><td>" success "</td><td>104</td><td>PM011</td><td></td><td>··· 8a3485</td></bl08<>	B>	04-06-2013 11:31:55 AM	Import ···	" success "	104	PM011		··· 8a3485
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## 8.10 Configuration Comparison

This section describes the details of configuration comparison.

### 8.10.1 Compare Business Configuration (Fast Path: OPA005)

This page is used to compare two entities on basis of its content.

It provides facility to compare Domain Objects, with same key, for a given task code. It aims at comparing the entities from two database which are termed as **TO** and **FROM** database. The comparison is such as it contains following information:

- Present only in TO database (presently working environment).
- Present only in FROM database (configurable DB environment).

• Present in both, but data is different.

### 8.10.2 Usage

The comparison results among entities can be generated by performing the following steps:

1. Open the OPA005 page, which loads all the entities configured in the table **flx_ops_task_defn**.

#### Figure 8–5 Entity Comparison

OPA005	×				
Compare Busi	ness Configura	tions			
				☐ Print ✓ Ok	🛛 Exit
	L3				
		No di	ata to display	10	
View 🔻 E	port To Excel				
Select	Task Code	Task Description	Matching Percentage	Exception	
	PM008	PM008 - Dorma			
	PLS003	PLS003 - Produ			
	PLS002	PLS002 - Produ			
	PLS001	PLS001 - GAAP			
	PM002	PM002 - Define			
	CNM09	CNM09 - Layou			
	ACCT010	ACCT010 - War			
	PM034	PM034 - Produ			

2. Select the option under **Select** column to do the comparison of configuration/configurations which shows the matching % of data in the two environment.

Figure 8–6 Entity Comparison Results

OPA005 x					
Compare Busin	ess Configuratio	ons			
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View - Expe	ort To Excel				
Select	Task Code	Task Description	Matching Percentage	Exception	
2	COR17	COR17 - State Code Summary	25		
	PM008	PM008 - Dormancy Rule Configuration			
	PLS003	PLS003 - Product Ledger - Branch Parameters			
0	PLS002	PLS002 - Product Ledger - Bank Parameters			
0	PLS001	PLS001 - GAAP Code Definition			
	PM002	PM002 - Define CASA Bank Policy			
0	CNM09	CNM09 - Layout Resolution Policy			
	ACCT010	ACCT010 - Warning Indicators			
0	PM034	PM034 - Product Group Role Mapping			
	PM037	PM037 - Domain Category Accounting Entry Template			
	PM032	PM032 - Product Group Accounting Entry Template			
8	PM025	PM025 - Link offers for Principal Offset Facility			

Progress bar denoting that the compare operation has finished.

Figure 8–7 Progress Bar

	OPA <u>0</u> 05	×				
	Compare Busi	ness Configura	tions			
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	۷	PLS003	PLS003 - Produ	100		
		PLS002	PLS002 - Produ	100		
	۲	PLS001	PLS001 - GAAP			
		PM002	PM002 - Define			
		CNM09	CNM09 - Layou			
		ACCT010	ACCT010 - War			
		PM034	PM034 - Produ			*

3. Select the % match to launch a pop up which shows the comparison result with different keys associated to it.

Figure 8–8 Comparison Details

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			Account 👻 🛛	Back Office 🔻	CASA 🔻 🛛	Collection 🔻	Credit C	ard 👻 Insuran	ce 👻 LCM 👻	Loan 🔻	Origination <b>v</b>	Party 🔻	Payment And Collection 🔻	Term Deposit 🔻	Fast Path	*
		205 ×				Comparis	on Detail	s			×					
	Compare B	usiness Configuratio	ins													
						Comp	arison Re	esult Keys						🚔 Print	🗸 O <u>k</u> 🛷 C <u>l</u> ear	🛛 Exit
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		PLS002	PLS002 - Produ	100												
		PLS001	PLS001 - GAAP	100												
		PM002	PM002 - Define													
		CNM09	CNM09 - Layou													
		ACCT010	ACCT010 - War				_	_	_	_	_					
	•	PM034	PM034 - Produ													-

4. Select any of the key to see the difference of its associated attributes in the two environment.

Figure 8–9 Attributes Difference

C	Posting Date 15-Mar-2017				Comparison	Details		>				i •	🔆 🏤 🍬 👻 OFSSUser 💌					
64	and Former B			Account 👻	Back Office 🔻	CASA	.⊿ Compar	ison Result Keys			n <b>v</b>	Party 🔻	Payment And Collect	ion 🔻	Term Deposit	Fast	Path	•
	OPA005	7					View -	Detach										
							Entity Key	То	From									
	Compare Busin	ess Configuration	ons				ACT#AU	ACT#AU	ACT#AU									
							NT#AU	NT#AU	NT#AU						Print	× 0%	🖉 Clear 🗖	Exit
							TAS#AU	TAS#AU	TAS#AU									
				1			QLD#AU	QLD#AU	QLD#AU									-
				1		_	SA#AU	SAWAU	SA#AU									
	0						WA#AU	WA#AU	WA#AU									
	View 👻 Expe	ort To Excel																
	Select	Task Code	Task Descriptio	in		A												
		COR17	COR17 - State	Code Summar	Y	2			Fiel	d Key List								
	•	PM008	PM008 - Dorma	ancy Rule Con	figuration		d Compar	ison Results										
•		PLS003	PLS003 - Produ	uct Ledger - Br	anch Parameters		View 🔻	Detach										
	0	PLS002	PLS002 - Produ	uct Ledger - Ba	ank Parameters		Label Value	То	From	Field -								
		PLS001	PLS001 - GAAF	P Code Definiti	ion		State Name	Australian Capital	Australian Capita	I Territ State.stateName								
		PM002	PM002 - Define	CASA Bank F	olicy													
	8	CNM09	CNM09 - Layou	ut Resolution P	olicy													
		ACCT010	ACCT010 - Wa	rning Indicator	s													
	8	PM034	PM034 - Produ	ct Group Role	Mapping													
	8	PM037	PM037 - Doma	in Category Ac	counting Entry Te	mplate												
		PM032	PM032 - Produ	ct Group Accou	unting Entry Temp	ate												
		PM025	PM025 - Link of	flers for Princip	oal Offset Facility													1

# 8.11 Application Configuration

This section describes the application configuration details.

### 8.11.1 Cache Configuration

Configuration cache is where we cache configuration information (stored in the configuration tables in database or some files) for every application on each server in the farm.

The entire application configuration to be cached is pre-defined in **Preferences.xml**.

Sample entries in Preferences.xml are as below:

#### Preferences.xml

```
<Preferences>
<Nodes>
<Preference name="jdbcpreference"
PreferencesProvider="com.ofss.fc.infra.config.impl.PropertiesFileC
onfigProvider" parent="" propertyFileName="jdbc.properties"
syncTimeInterval="600000" />
<Preference name="ConfigurationVariable"
PreferencesProvider="com.ofss.fc.infra.config.impl.DBBasedProperty
Provider" parent="jdbcpreference" propertyFileName="select prop_id,
prop_value from flx_fw_config_var_b" syncTimeInterval="600000" />
<Preference name="ChannelConstants"
PreferencesProvider="com.ofss.fc.infra.config.impl.JavaConstantsConfigProvider" parent="jdbcpreference"
propertyFileName="com.ofss.fc.common.ChannelConstantsConfiguration"
syncTimeInterval="600000" />
```

Important parameters in preferences.xml are as follows:

- **PreferencesProvider**: DB based provider, File base provider or Java constant base provider.
- propertyFileName: Describes the configuration source. Either sql query, file name or fully qualified Java constant class name.
- syncTimeInterval: Refresh time
- name: Acts as configuration key in the cache
- parent: Enables building the dependency hierarchy
- overriddenBy: This parameter specifies the name of preference which will override the current one.

# 9 Batch Shells in OBPM

This chapter describes the batch shells used in OBPM and their execution sequence.

## 9.1 Batch Shells Description

The following table lists the batch shells along with their detailed description.

#### Table 9–1 Shell Description

Sr. No.	Process Category	Category Description	Shell	Shell Description	Module Code	Detailed Description
1	100	Health Check	health_ chk_shell	Health Checkup Shell	FW	This is dummy shell. It is used to check whether framework is ready to process batch and to check if there is any issue on framework or not.
2	100	Health Check	excep_ pending_ shell	Batch Exceptions Pending Check Shell	FW	This shell will check in exception log for all unprocessed records which marked as deferred. If any record is found, then this shell will be marked as aborted as there are still pending exception record available.
3	0	Reports Health Check	reports_ chk_shell	Reports Health Check	FW	This is dummy shell. It is used to check whether report framework is ready to process reports and to check if there is any issue on framework or not.
4	3	Cut Off	co_cutoff_ prologue	Cutoff Prologue	со	This shell is used to indicate that the cut off has been started by setting the flg_cutoff_ run_today in flx_cs_branch_dates_b to 'Y'. (This flag is set back to 'N' at the end of the EOD category.)
5	1	End of Day	pi_srv_ord_ sta_eod	Service Order Deactivation EOD Shell	PI	This shell handles de-activation of Service Orders based on Service Order end date.
6	1	End of Day	eod_ report_shell	EOD Reports	AL	This shell generates reports in EOD.
7	1	End of Day	eod_	EOD	EO	This shell waits for all the reports to be generated and changes the Process date.

Sr. No.	Process Category	Category Description	Shell	Shell Description	Module Code	Detailed Description
			epilogue	Epilogue		
8	16	Internal System EOD	pi_eod_ shell	Party EOD Shell	PI	This shell is used to process the Party Due Diligence Expiry if the Expiry date is a holiday.
9	16	Internal System EOD	int_eod_ report_shell	Internal EOD Reports	AL	This shell generates Reports during Internal system EOD.
10	16	Internal System EOD	int_eod_ epilogue	Int EOD Epilogue	EO	This shell waits for all the reports to be generated.
11	2	Beginning of Day	pi_srv_ord_ sta_bod	Service Order Activation BOD Shell	PC	This shell handles activation of Service Orders based on Service Order start date.
12	2	Beginning of Day	wf_task_ resume_ shell	Human Task EOD Resume Shell	WF	
13	2	Beginning of Day	bod_ report_shell	BOD Reports	AL	This shell generates reports.
14	2	Beginning of Day	bod_ epilogue	BOD Epilogue	EO	This shell waits for all the reports to be generated.
15	117	Housekeeping	pi_bod_ shell	Party BOD Shell	PI	This shell is used to process the Party Due Diligence Expiry if it falls on a working day. This shell also updates the future party address getting active on this day. It updates such addresses to be current and marks the previous current address as past.
16	120	Alert Generation	ep_ generation_ shell	Alert generation Shell	DI	All pending alert requests is picked and processed. If the status of the alert is generated state, it means processing is pending for the alerts. This shell picks the alerts which are less than current date.
17	69	mdm_Publish	mdm_ publish_ shell	mdm Publish	IN	<ul> <li>This shell publishes to OCH following status updates taken place during EOD:</li> <li>Account closures during batch execution</li> <li>Account opening during batch execution</li> </ul>

Sr. No.	Process Category	Category Description	Shell	Shell Description	Module Code	Detailed Description
						<ul> <li>KYC updates during batch execution</li> </ul>
18	12	FSDF master data hand-off	handoff_ shell	Analytics Hand-Off Shell	DI	This shell initiates all ODI scenario execution defined in FLX_DI_ETL_JOB_ DEFINITION table.
19	12	FSDF master data hand-off	handoff_ initialise	Analytics Hand-Off Initialisation Shell	DI	This shell initializes the start time of CSA (Common staging area) data handoff time frame.
20	12	FSDF master data hand-off	epilogue_ shell	Analytics epilogue Shell	DI	This shell checks all running ODI scenario execution status. If any error occurs, the scenario execution is restarted after resolve.
21	13	FSDF EOD data hand-off	handoff_ shell	Analytics Hand-Off Shell	DI	This shell is used to transfer data for Common Services, Party, Loan, and PMU from OBP to CSA (Common staging area).
22	13	FSDF EOD data hand-off	epilogue_ shell	Analytics epilogue Shell	DI	This shell monitors the execution status of all ODI scenarios requested for execution during handoff_shell.
23	14	FSDF Txn data Hand-off	handoff_ shell	Analytics Hand-Off Shell	DI	This shell is used to transfer data for Accounting, DDA, LOAN, TD, and Facility from OBP to CSA (Common staging area).
24	14	FSDF Txn data Hand-off	epilogue_ shell	Analytics epilogue Shell	DI	This shell monitors the execution status of all ODI scenarios requested for execution during handoff_shell.
25	15	Analytics Batch Data Hand-off	handoff_ initialise	Analytics Hand-Off Initialisation Shell	DI	This shell initializes the start time of CSA (Common staging area) data handoff time frame. This shell is used when reporting db is present as source database.
26	15	Analytics Batch Data Hand-off	handoff_ shell	Analytics Hand-Off Shell	DI	This shell is used to transfer data for all the modules from OBP to CSA (Common staging area). This shell is used when reporting db is present as source database.

Sr. No.	Process Category	Category Description	Shell	Shell Description	Module Code	Detailed Description
27	15	Analytics Batch Data Hand-off	epilogue_ shell	Analytics epilogue Shell	DI	This shell monitors the execution status of all ODI scenarios requested for execution during handoff_shell. This shell is used when reporting db is present as source database.

# 9.2 Batch Shells Execution Sequence

The following table presents the execution sequence of the batch shells.

### Table 9–2 Shell Execution Sequence

Sr. No.	Process Category	Category Description	Category Significance	Shell Execution Sequence	Shell	Shell Description	Module Code	Required Shells	Required Shell Description
1	100	Health Check	Optional	1	health_chk_ shell	Health Checkup Shell	FW		
2	100	Health Check	Optional	1	excep_ pending_ shell	Batch Exceptions Pending Check Shell	FW		
3	0	Reports Health Check	Optional	1	reports_chk_ shell	Reports Health Check	FW		
4	3	Cut Off	Mandatory	1	co_cutoff_ prologue	Cutoff Prologue	со		
5	1	End of Day	Mandatory	1	pi_srv_ord_ sta_eod	Service Order Deactivation EOD Shell	PI		
6	1	End of Day	Mandatory	30	eod_report_ shell	EOD Reports	AL		
7	1	End of Day	Mandatory	32	eod_epilogue	EOD Epilogue	EO		
8	16	Internal System EOD	Mandatory	1	pi_eod_shell	Party EOD Shell	PI		
9	16	Internal System	Mandatory	16	int_eod_	Internal EOD Reports	AL		

Sr. No.	Process Category	Category Description	Category Significance	Shell Execution Sequence	Shell	Shell Description	Module Code	Required Shells	Required Shell Description
		EOD			report_shell				
10	16	Internal System EOD	Mandatory	17	int_eod_ epilogue	Int EOD Epilogue	EO		
11	2	Beginning of Day	Mandatory	1	pi_srv_ord_ sta_bod	Service Order Activation BOD Shell	PI		
12	2	Beginning of Day	Mandatory	1	wf_task_ resume_ shell	Human Task EOD Resume Shell	WF		
13	2	Beginning of Day	Mandatory	16	bod_report_ shell	BOD Reports	AL		
14	2	Beginning of Day	Mandatory	17	bod_epilogue	BOD Epilogue	EO		
15	117	Housekeeping	Mandatory	1	pi_bod_shell	Party BOD Shell	PI		
16	120	Alert Generation	Optional	1	ep_ generation_ shell	Alert generation Shell	DI		
17	69	mdm_Publish	Optional	1	mdm_ publish_shell	mdm Publish	IN		
18	12	FSDF master data hand-off	Optional	1	handoff_ shell	Analytics Hand-Off Shell	DI		
19	12	FSDF master data hand-off	Optional	2	handoff_ initialise	Analytics Hand-Off Initialisation Shell	DI	handoff_ shell	Analytics Hand-Off Shell
20	12	FSDF master data hand-off	Optional	2	epilogue_ shell	Analytics epilogue Shell	DI	handoff_ shell	Analytics Hand-Off Shell
21	13	FSDF EOD data hand-off	Optional	1	handoff_ shell	Analytics Hand-Off Shell	DI		
22	13	FSDF EOD data hand-off	Optional	2	epilogue_ shell	Analytics epilogue Shell	DI	handoff_ shell	Analytics Hand-Off Shell

Sr. No.	Process Category	Category Description	Category Significance	Shell Execution Sequence	Shell	Shell Description	Module Code	Required Shells	Required Shell Description
23	14	FSDF Txn data Hand-off	Optional	1	handoff_ shell	Analytics Hand-Off Shell	DI		
24	14	FSDF Txn data Hand-off	Optional	2	epilogue_ shell	Analytics epilogue Shell	DI	handoff_ shell	Analytics Hand-Off Shell
25	15	Analytics Batch Data Hand-off	Optional	1	handoff_ initialise	Analytics Hand-Off Initialisation Shell	DI		
26	15	Analytics Batch Data Hand-off	Optional	2	handoff_ shell	Analytics Hand-Off Shell	DI	handoff_ initialise	Analytics Hand-Off Initialisation Shell
27	15	Analytics Batch Data Hand-off	Optional	3	epilogue_ shell	Analytics epilogue Shell	DI	handoff_ shell	Analytics Hand-Off Shell

# **10 Information Lifecycle Management (ILM)**

This chapter describes the configuration, installation, and policy setup of Information Lifecycle Management (ILM).

Information Lifecycle Management is a set of techniques and technologies available from Oracle that assist in managing the lifecycle of data to support business needs and minimize storage costs. OBPM drives ILM at the Oracle database level using database options and features to manage and move data as it evolves during its lifetime.

# **10.1 Configuration**

The following values for the duration of data retention need to be determined. These values are used to drive ILM configuration.

Pattern Name	Partition Range Type	Data Retention in Active Tier	Data Retention in Less Active Tier	Data Retention in Historical Tier	Purge After
Lifecycle_ Pattern_1	MONTH	2 month	N/A	2 year	2 year
Lifecycle_ Pattern_2	MONTH	6 month	Will be provided by business	N/A	Will be provided by business
Lifecycle_ Pattern_3	YEAR	N/A	N/A	N/A	Will be provided by business
Lifecycle_ Pattern_4	YEAR	1 year	Will be provided by business		N/A
Lifecycle_ Pattern_5	YEAR	1 year	N/A	Will be provided by business	
Lifecycle_ Pattern_6	MONTH	1 month			1 month

Table 10–1 Values for ILM Configuration

# **10.2 Installation**

This section explains the process of ILM installation.

### 10.2.1 Prepare Scripts

Operator needs to create partition creation script and ADO policy creation script manually based on data provided in ILM_Config.xlsx for each ILM qualified table and attached lifecycle pattern.

Parameters required for populating partition creation script are as follows:

- Table Name (OBPM Tables Worksheet)
- ILM Column (OBPM Tables Worksheet)
- Partition Range Type (Lifecycle Pattern Worksheet)

Parameters required for populating ADO policy creation script are as follows:

- Table Name (OBPM Tables Worksheet)
- Lifecycle Definition (OBPM Tables Worksheet)
- Data retention in different tier (Lifecycle Pattern Worksheet)
- Purging time (Lifecycle Pattern Worksheet)

The following sections describe the steps to be performed during the OBPM database creation.

### **10.2.2 Create Tablespace**

Separate tablespaces need to be created for the following tiers:

- Active tier
- Less Active tier
- Historical tier

#### The following command is to be used for creation of the above tiers:

CREATE TABLESPACE <tablespace_name> datafile <datafile_name> SIZE <allocated_ size> SEGMENT SPACE management auto extent management local autoallocate;

#### For example:

CREATE TABLESPACE less_active_data datafile '/oracleE2POC/data01/s2poc/less_ active_data01.dbf' SIZE 10m SEGMENT SPACE management auto extent management local autoallocate;

### **10.2.3 Create Partition Script**

Partitioning script can be generated through partition script creation utility. For ILM qualified tables, the tables should always be partitioned based on range. Partition script can be generated based on Day, Month and Year. The following parameters need to be provided to the utility:

- Table Name
- ILM Column Name
- Schema Name (decided by DBA)
- Partition Interval (Default 1)
- Partition Type (DAY, MONTH and YEAR)
- Directory where partition script will be created (decided by DBA)

This utility can be run as follows:

- 1. Connect to OBPM Database.
- 2. Run the following SQL statement:

DECLARE PI TABLE NAME VARCHAR2(200);

```
PARTITION COLUMN NAME VARCHAR2(200);
SRC SCHEMA NAME VARCHAR2(200);
PARTITION INTERVAL NUMBER;
PARTITION TYPE VARCHAR2(200);
DIRECTORY NAME VARCHAR2(200);
DURATION NUMBER;
DURATION TYPE VARCHAR2(200);
BEGIN
PI TABLE NAME := <ILM qualified table name>;
PARTITION COLUMN NAME := <ILM column name>;
SRC SCHEMA NAME := <Source schema name>;
PARTITION INTERVAL := <Duration>;
PARTITION TYPE :=< Partition type as DAY, MONTH or YEAR>;
DIRECTORY NAME := <Location where partition script will be
created>;
DURATION := 0;
DURATION TYPE := NULL;
AP OPA ILM CREATE PARTITION (
PI TABLE NAME => PI TABLE NAME,
PARTITION COLUMN NAME => PARTITION COLUMN NAME,
SRC SCHEMA NAME => SRC SCHEMA NAME,
PARTITION INTERVAL => PARTITION INTERVAL,
PARTITION TYPE => PARTITION TYPE,
DIRECTORY NAME => DIRECTORY NAME,
DURATION => DURATION,
DURATION TYPE => DURATION TYPE
);
--rollback;
END
```





3. After execution, the utility table creation script appears as shown in the below figure.

Figure 10–2 Utility Table Creation Script



### **10.2.4 Run Partition Script**

The steps to run the partition script are as follows:

- 1. Download the newly created partition script from specified directory.
- 2. Verify created partition script before running.
- 3. Execute the script on OBPM database as follows:
  - a. Connect to OBPM Database.
  - b. Run partition creation script:

@ <Tablename>par.sql

For example:

@ /scratch/app/ILM_PARTITION_DIR/FLX_DA_ACCT_EVENT_H_DEMOpar.sql

### **10.2.5 Create and Register ADO Policies based on Lifecycle Pattern**

Automatic Data Optimization (ADO) is used to create policies and automate actions based on those policies, for implementing the ILM strategy. The data is moved across storage tiers. The following script needs to be executed to create the ADO policies:

- 1. Connect to OBPM Database.
- 2. Run ADO policy creation script:
  - @ <Tablename>ado.sql

For example:

@ /scratch/app/ILM_ADO_DIR/FLX_DA_ACCT_EVENT_H_DEMOado.sql

### **10.2.6 Verify Registered ADO Policies**

The created ADO policies can be verified through Oracle Enterprise Manager.

Figure 10–3 Verify ADO Policies

Setup 👻 🔢 SYSMAN 🗸				120		erprise Manag		
Search Target Name					es 🔻 🥝 History 🔻	ets 👻 🐈 Eavorite	nterprise 🔻 🧿 <u>T</u> ai	
Logged in as 🛭 sys 👸   🗒 mum00aro.in.orad							ICONT65A 0	
Page Refreshed Dec 22, 2015 5:25:10 AM GM			Iministration 🔻	Schema 🔻 Adr	ailability 🔻 Security 🔻	erformance 🔻 Ava	Drade Database 🔻	
					ent	cle Manageme	ormation Lifec	
							at Map Policy	
		Top Tablespaces By Polic	24 Hours	ary for Last 2	y Execution Summ	Policy	Policy Summary	
		1			5	Job	Policies	
					ompleted 0	Co	Compression (	
					Failed 0		Storage 1	
					Active 0		Objects	
	Compression			Policies Completed 0 Failed 0			With Policies Er	
	Storage Tiering						With Policies Disabled 0 Evaluations	
	None							
			Objects			Obje		
					ompressed 0 Moved 0	aluate Co	E	
					cies	timization Polic	utomatic Data C	
					/ 🖹 Execute Policy	Execution History	60 Policy Details	
		us	Statu	Objects	Scope	Action Type	Name	
		bled	1 Enab		SEGMENT	STORAGE	P163	
		oled	1 Enab		SEGMENT	STORAGE	P167	
		led	1 Enab		SEGMENT	STORAGE	P169	
		aled .	1 Enab		SEGMENT	STORAGE	P 102	
		led	1 Enab		SEGMENT	STORAGE	P172	
		oled	1 Enab		SEGMENT	STORAGE	P165	
		oled	1 Enab		SEGMENT	STORAGE	P170	
		oled	1 Enab		SEGMENT	STORAGE	P161	
		oled	1 Enab		SEGMENT	STORAGE	P168	
		oled	1 Enab		SEGMENT	STORAGE	P164	

## **10.3 Policy Execution**

ADO policies are required to be scheduled to execute automatically by configuring the database maintenance period. This can be determined during the implementation phase.

These ADO policies can be additionally executed manually with the following command:

```
declare
v_executionid number;
begin
dbms_ilm.execute_ilm (ilm_scope=>dbms_ilm.scope_schema,
execution_mode=>dbms_ilm.ilm_execution_offline,
task_id=>v_executionid);
end;
/
```

# **11 Transparent Data Encryption (TDE)**

This chapter describes the configuration, installation, and policy setup of Transparent Data Encryption (TDE).

Transparent Data Encryption is a technology used to encrypt database files. This feature enables you to protect sensitive data in database columns stored in operating system files by encrypting it. Then, to prevent unauthorized decryption, it stores encryption keys in a security module external to the database.

# **11.1 Configuration**

The following is the classification of information related to OBPM. This information is used to drives TDE configuration.

Classification	Details	Access and Distribution	Action
Public	This information is not sensitive, and there is no value with it remaining confidential to Bank.	No restrictions	No Encryption
Confidential Internal	It is important that this information remains confidential to Bank.	May be accessed by and distributed to all support person. Distribution to third parties must be authorized by the information owner and requires that an appropriate confidential disclosure agreement be in place.	No Encryption
Confidential Restricted	It is very important that this information remains confidential to Bank and that access within bank is restricted on a need-to- know basis.	Internal access/distribution must be on a business need-to-know basis. Not authorized for information unless the information is encrypted using Oracle-approved encryption.	Need to set encryption rule during TDE
Confidential Highly Restricted	It is essential that this information remains confidential to Bank and that access within bank is restricted on a need-to- know basis.	Internal access/distribution must be very limited and is on a stringent business need-to-know basis. Not authorized for information unless the information is encrypted using Oracle-approved encryption.	Need to set encryption rule during TDE

Table 11–1 TDE Configuration

All tables in OBPM are classified based on above classification and columns of those tables are marked based on sensitivity.

# 11.2 Installation

This section explains the installation process.

### 11.2.1 Prepare Scripts to Encrypt Sensitive Data

Database administrator needs to create alter script to encrypt sensitive data. The utility tool (obpencryption.sh) is used to create this alter script for TDE. To run the tool, the following prerequisites are required.

### Prerequisites

- Create a folder "obpencryption" where user wants to run the tool.
- Upload Sensitive_Data_List.xlsx, obp-encryption-script-gen.jar, obpencryption.sh, DB_ RESOURCEBUNDLE.properties. These files are available in maskingencryption.zip. The maskingencryption.zip is part of host.zip available in installer.
- Update database details in DB_RESOURCEBUNDLE.properties file before running the script.
- Update value "encryptLocation" variable with obp encryption path in obpencryption.sh at line 6.

For example: encryptLocation="/scratch/app/product/obpencryption"

### **Run Encryption Tool**

 Create update scripts for all the tables containing sensitive data. Run obpencryption.sh with TDE and ENCRYPT.

For example: /obpencryption.sh TDE ENCRYPT

### 11.2.2 Create TDE Keystore

Perform these steps to create keystore which is required for encryption and decryption. Perform the following steps.

Create keystore location with mkdir -p <location>.

For example: mkdir -p /scratch/app/admin/TDE/encryption keystore/

Log in to database with sysdba.

For example: sqlplus / as sysdba

- Run the following sql instruction:
  - ADMINISTER KEY MANAGEMENT CREATE KEYSTORE '{Keystore loaction}' IDENTIFIED BY {Password}

For example: SQL>ADMINISTER KEY MANAGEMENT CREATE KEYSTORE
'/scratch/app/admin/TDE/encryption_keystore/' IDENTIFIED BY
myPassword

 ADMINISTER KEY MANAGEMENT SET KEYSTORE OPEN IDENTIFIED BY welcome1 CONTAINER=ALL;

For example: SQL>ADMINISTER KEY MANAGEMENT SET KEYSTORE OPEN IDENTIFIED
BY welcome1 CONTAINER=ALL;

 ADMINISTER KEY MANAGEMENT CREATE KEY using tag 'KEY5' IDENTIFIED BY welcome1 WITH BACKUP CONTAINER =all; For example: SQL>ADMINISTER KEY MANAGEMENT CREATE KEY using tag 'KEY5' IDENTIFIED BY welcome1 WITH BACKUP CONTAINER =all;

 ADMINISTER KEY MANAGEMENT SET KEY using tag 'KEY5' IDENTIFIED BY welcome1 WITH BACKUP CONTAINER=ALL

For example: SQL>ADMINISTER KEY MANAGEMENT SET KEY using tag 'KEY5' IDENTIFIED BY welcome1 WITH BACKUP CONTAINER=ALL;

Check the encryption keys generated.

For example: SQL> SELECT con id, key id FROM v\$encryption keys;

Check the wallet status.

For example: SQL> SELECT * FROM v\$encryption_wallet;

### 11.2.3 Edit sqlnet.ora file

Perform this step to enter the TDE wallet location.

- Take a backup of sqlnet.ora file before update for TDE.
- Add entries of sqlnet.ora file as follows:

```
ENCRYPTION_WALLET_LOCATION =
(SOURCE =(METHOD = FILE)(METHOD_DATA =
(DIRECTORY = {Keystore location})
For example:ENCRYPTION_WALLET_LOCATION =
(SOURCE = (METHOD = FILE) (METHOD_DATA =
(DIRECTORY = /scratch/app/admin/TDE/encryption keystore/)
```

### 11.2.4 Run Created Alter Script

- Get TDE_Encryption.sql script from obpencryption/generatedScript/tde.
- Log in to database.
- Run TDE_Encryption.sql.

# **12 Masking Customer Private Data**

This chapter describes the configuration, installation, and policy setup to mask customer private data categories as sensitive or Personally Identifiable Information (PII).

# **12.1 Configuration**

The following is the classification of information related to OBPM. This information is used to drive TDE configuration.

Classification	Details	Access and Distribution	Action	
Public	This information is not sensitive, and there is no value with it remaining confidential to Bank.	No restrictions	No Encryption	
Confidential Internal	It is important that this information remains confidential to Bank.	May be accessed by and distributed to all support persons. Distribution to third parties must be authorized by the information owner and requires that an appropriate confidential disclosure agreement is in place.	No Encryption	
Confidential Restricted	It is very important that this information remains confidential to Bank and that access within bank is restricted on a need-to-know basis.	Internal access/distribution must be on a business need- to-know basis. Not authorized for information unless the information is encrypted using Oracle-approved encryption.	Need to set encryption rule during masking Tables containing this type of data will be accessed through view for RO user. Synonym needs to be created for the tables and views containing this type of data for RO and ERO user.	
Confidential Highly Restricted	It is essential that this information remain confidential to Bank and that access within bank is restricted on a need-to-know basis.	Internal access/distribution must be very limited and is on a stringent business need-to- know basis. Not authorized for information unless the information is encrypted using Oracle-approved encryption.	Need to set encryption rule during masking. Tables containing this type of data will be accessed through view for RO user. Synonym needs to be created for the tables and views containing this type of data for RO and ERO user.	

Table 12–1 TDE Configuration

All tables in OBPM are classified based on above classification and columns of these tables are marked based on sensitivity.

# **12.2 Installation**

This section explains the installation process.

### 12.2.1 Prepare Scripts to Encrypt Sensitive Data

Database administrator needs to create the following script for masking sensitive data.

- View creation script of the tables containing sensitive data and mask them for RO (Read only) user.
- Synonym creation script of created view of the containing sensitive data for RO (Read only) user.
- Synonym creation script of tables containing sensitive data for ERO (E Read only) user.

The utility tool (obpencryption.sh) is used to create above script. To run the tool, the following prerequisites are required.

### Prerequisites

- Create a folder "obpencryption" where user wants to run the tool.
- Upload Sensitive_Data_List.xlsx, obp-encryption-script-gen.jar, obpencryption.sh, DB_ RESOURCEBUNDLE.properties. These files are available in maskingencryption.zip. The maskingencryption.zip is part of host.zip available in installer.
- Update database details in DB_RESOURCEBUNDLE.properties file before running the script.
- Update value "encryptLocation" variable with obp encryption path in obpencryption.sh at line 6.

For example: encryptLocation="/scratch/app/product/obpencryption"

#### Run Encryption Tool for View Creation script and mask data

 Create view creation scripts for all the tables containing sensitive data after mask. Run obpencryption.sh with MASK and VIEWCREATE as parameter.

For example: /obpencryption.sh MASK VIEWCREATE

#### Run Encryption Tool for Synonym Creation script for RO user

 Create synonym creation scripts for all the created containing sensitive data. Run obpencryption.sh with MASK and SYNONYMRO as parameter.

For example: /obpencryption.sh MASK SYNONYMRO

#### Run Encryption Tool for Synonym Creation script for ERO user

 Create synonym creation scripts for all the tables containing sensitive data. Run obpencryption.sh with MASK and SYNONYMEERO as parameter.

For example: /obpencryption.sh MASK SYNONYMERO

### 12.2.2 Create Schema for RO and ERO User

To create schema for RO and ERO user, execute the following steps.
- Create Read-Only (RO) and E Read-Only (ERO) user for accessing masked data from view and table.
- Grant for proper access.

### **12.2.3 Execute Created Scripts through Encryption Tool**

Run all created scripts through the encryption tool for the following task.

- Mask sensitive data for RO user.
- Create view for tables contain sensitive data.
- Create synonym to access the view.
- Create synonym to access the table for ERO user.

To do the above tasks, perform the following steps.

- Get all view creation scripts from obpencryption /generatedScript/masking/viewforRO location and run after logging in to database.
- Get synonym creation script (MaskingSynonymForRO.sql) for RO user from obpencryption/generatedScript/masking/synonymForRO and run after logging in to database.
- Get synonym creation script (MaskingSynonymForERO.sql) for ERO user from obpencryption/generatedScript/masking/ synonymForERO and run after logging in to database.

# 13 Configure ODI for Inbound Document Upload

This chapter provides the steps to configure ODI for Inbound Document Upload.

For document upload ODI execution, complete the following configurations:

- 1. Configuring the Input directory:
  - a. For example, if input directory is /scratch/odi/InboundDocument/Upload/lendingZone/
  - b. Update the configuration in the table using the following SQL:

update FLX_FW_ODI_SUB_INTERFACE_TYPE set IN_FILE_ PATH=/scratch/odi/InboundDocument/Upload/IendingZone/ ' where SUB_INTERFACE_ ID='9551';

- c. Note that the SUB_INTERFACE_ID='9551' should not be changed.
- 2. Configure the Schema directory:
  - a. Provide the directory where all the schemas are present.

Framework configuration:

update FLX_FW_ODI_SUB_INTERFACE_TYPE set SCHEMA_FILE_PATH = '/scratch/odi/InboundDocument/Upload/schema/' where SUB_INTERFACE_ID ='7002';

- b. Copy all the schema for ODI mediapack zip from directory schema to the new directory which is configured for framework.
- c. Provide schema file for Document Upload.

update FLX_FW_ODI_SUB_INTERFACE_TYPE set schema_file_ path='D:\work\odi\inDocUpload\InboundDocument\Upload\schema\scan_images_ request.0.1.XSD' where SUB_INTERFACE_ID='9551';

3. Configure Temporary directory:

update FLX_FW_ODI_SUB_INTERFACE_TYPE set temp_file_path= '/scratch/odi/InboundDocument/Upload /lendingZonetmp/' where SUB_INTERFACE_ID='9551';

4. Configure Archive directory:

update FLX_FW_ODI_SUB_INTERFACE_TYPE set archive_file_ path=/scratch/odi/InboundDocument/Upload/archieve/' where SUB_INTERFACE_ID='9551';

- 5. Create users in connector: Create two credential maps:
  - oracle.obp.credmap: This has two keys.
    - IPM_SERVICE: It has the username and password of IPM. It is used to upload the documents to IPM.
    - OBP_USER: It is required to make web service call to OBP.

- oracle.odi.credmap
  - SUPERVISOR: It has supervisor username and password.
  - odi_domain: It has domain username and password.

Figure 13–1 Credentials

Credentials A credential store is the repository of security data that certifies the authority of entities used by Java SE, Java EE, and ADF applications. Applications can use the Credential Store, a single, consolidated service provider to store and manage their credentials secure to Credential Store Provider										
View +	+ Create Map	+ Create Key	🥒 Edit	X Delete	Credential Key Name		Detach			
Cred	ential								Туре	Description
- A (	oracle.obp.credma	ap								
									Password	
	<pre>     OBP_USER </pre>								Password	
- A (	oracle.odi.credma	IP								
	SUPERVISOR								Password	
	<pre>     odi_domain </pre>								Password	

6. Provide permission to the java project for fetching the user credentials. Provide read permission to Java binary com.ofss.fc.document.upload.ipm.jar from EM.

#### Figure 13–2 Example of premissions

Create Sys	stem Grant						
There are two dif system. Codebas	ferent types of system policies supported by application server: principal pol se can be either absolute path or relative path.	licy and codebase policy. Principal policy grants permissions and privileg	es to a list of users or roles. Codebase policy grants pe				
Grant To	Grant To Codebase •						
* Codebase file:/scratch/app/product/fmw/obp/obp.odi.domain/com.ofss.fc.document.upload.ipm.jar							
Permissions							
View 💌 🗖	Add Zelit Z Delete 🛒 Detach						
Permission Class		Resource Name	Permission Actions				
java.security	y.AllPermission	read	read				

- 7. Configuring IPM URL:
  - a. update FLX_FW_ODI_SUB_INTERFACE_TYPE set GEFU_IN_FILE_PATH='http://\${IPM-HOSTNAME}:\${IPM-PORT}/imaging/ws' where SUB_INTERFACE_ID='9551';
  - b. Replace \${IPM-HOSTNAME} with IPM Hostname or IP address.
  - c. Replace \${IPM-PORT} with IPM Server port number.
- Configure config/properties/OutboundWebserviceConfig.properties to provide OBP Host web service configuration.
  - a. Replace \${OBP-HOST-IP} with OBP Host IP address or hostname.
  - b. Replace \${OBP-HOST-PORT} with OBP Host managed server port.

9. Provide FJ Connection Details in ODI Topology data server ORACLE_HOST.

Figure 13–3 Connection details

Designer Topology ×		📀 Start Page 🛛 🔵 ORA	CLE_HOST ×			
62	<u> -</u>	Test Connection				
Physical Architecture  OBP_FSDF  OBP_OCH		Definition JDBC	JDBC Driver:	oracle.jdbc.OracleDriver		_
B ··· C OBP_PMU_S B ··· C OBP_PMU_T B ··· C OBP_SRC	RC ARGET	Datasources Version	JDBC URL:	Jupr: oracle: unit: @ 10, 100.0, 102: 1321/PD60102		
	a 🔘 Ist	Privileges Flexfields	Properties			
Data Types			Key		Value	

# **14 Additional Recommendations**

This chapter provides specific recommendations to be considered for implementation:

## 14.1 SOA Related

This section mentions certain recommendations for setting up the properties on SOA server.

## 14.1.1 Enable Auto Purge Job

- Oracle SOA Suite team strongly recommends periodic purging of composite instances. Purge instances as soon as they are available for purge.
- SOA suite 12c comes up with default purge job enabled with retention period of 7 days.
- It is recommended to keep this default job enabled in the production.

#### Figure 14–1 Auto Purge

ORACLE Enterprise Manager Fusion Middleware Control 12c	WebLogic Domain v weblogic v ····
soa-Infra 0     # Soa-Inf	Apr 19, 2018 7:52:11 PM GMT+05:30 🍤
Auto Purge Job SOA Flow Purge Job 1 🔹 Enabled 🕑 Run Now	Apply 🔄 Revert
Schedule Enter a valid calendaring expression.	
Configuration	
* Purge Type SINGLE V	
Retain Data 5 A v days	
Data within this interval is NOT purped when the job runs	
Batch Size 20000 A V	
More Auto Purge Configuration Properties	

## 14.1.2 Enable Lazy Loading

- 12c supports lazy loading of composites on deployment as well as server startup.
- CompositeLazyDeployment: Loads the composites lazily on deployment.
  - More useful for non-production environments where there is frequent deployment of all the composites.
- CompositeLazyLoading: Loads the composites lazily on server start up.
- It is recommended to keep the default settings unchanged, that is CompositeLazyDeployment as false and CompositeLazyLoading as true in production environment.

- This will reduce the SOA server startup time.
- To confirm the settings, in SOA EM console, go to soa-infra > SOA Administration > Common Properties. Click More SOA Infra Advanced Configuration Properties link.

Figure 14–2 Lazy Loading Settings

ORACLE Enterprise Manager Fusion Middleware	Control 12c			🗮 WebLogic Domain 💌 weblogic 💌		
t soa-infra o t soa infrastructure ≠ Svstem MBean Browser				אַר 💽 אַר 🛃 אַר	ย	
🍓 🍸 oracle.as.soainfr 🗞	Application Defined MBe	ans: SoaInfraConfig:soa-infra		Apply Revi	ert	
Application Defined MBeans     Application config	Information     The changes made on this mb	ean are not managed by the configuration session. The chang	jes will be	applied immediately. You cannot undo the changes from the Change Center.	K	
Scalinfra     Soalinfra     Soalinfra	Show MBean Information Attributes Operations Notifications					
	Name	Description	Access	Value		
	1 AuditConfig	Audit Configuration	RW	javax.management.openmbean.CompositeDataSupport(compositeType=javax.management.openm	•	
	2 AuditLevel	Audit level. The possible values are Off, Production and Dev	RW	Production		
	3 AutodeployDir	The composite auto deployment directory.	RW			
	4 BulkRecoveryConfig	Configuration for bulk recovery of faults.	RW	javax.management.openmbean.CompositeDataSupport(compositeType=javax.management.openm		
	5 CacheConfig	Cache Configuration	RW	javax.management.openmbean.CompositeDataSupport(compositeType=javax.management.openm		
	6 CallbackServerURL	This URL is sent by the server as part of the asynchronous c	RW			
	7 CompositeLazyDeployment	Flag to indicate whether SOA composites will be lazily loaded	RW	false		
	8 CompositeLazyLoading	Flag to indicate whether SOA composites will be lazily loaded	RW	true 🗸		
	9 ConfigMBean	If true, it indicates that this MBean is a Config MBean.	R	true		
	10 CreateWSCallTrackingMBe	The flag that controls the creation of mbeans to track elapse	RW	false		
	11 DatasourceJndi	The JNDI name for the server datasource. This datasource	RW	Jdbc/SOALocalTxDataSource	,	

## 14.2 BPM Worklist Related

This section mentions certain recommendations on usage of BPM worklist.

### 14.2.1 Disable Claim Action from Task Details Page

- Always claim the task using worklist action menu.
- Claim option is disabled by default inside task details page.
- It can be enabled (configurable), if needed (but not recommended).
- Disabling this option helps to avoid loading of task details page twice, that is before claiming the task and after claiming the task.

Figure	14–3	Claim	Action
--------	------	-------	--------

ORACLE BPM Worklist							
My Tasks(24	4) 🔻 🕂 🥒 %	Actions 🔻 🗹 🗵	🔍 🔻 Me & My Group All 🗸 Assigned 🗸 🟦 🗮 🔻				
Status 🖹	title	Reassign					
	Verify Application APP20	Escalate	mission SUB200620180014610				
<b>B</b>	Structure Solution of Len	Suspend	80010612003 and Submission SUB200620180014610				
8	Overview of Credit Decisi	Start Task	0180014610				
<b>B</b>	Offer Letter Acceptance	Claim	0010763001 and Submission SUB200620180014764				
8	Overview of Credit Decisi	Create To-Do Task	0180014764				
	Structure Solution of Len		80010761001 and Submission SUB200620180014758				

## 14.2.2 Always Open Human Task Details in External Window

- BPM worklist supports two options to display the task details.
  - **Same Window**: Human task details are opened in the same browser window just below the worklist grid.
  - External Window: Human task details are opened in the new browser window (as a child popup).
- It is strongly recommended to make use of **External Window** option.
  - Human task details can be seen in full-screen mode.
  - Avoids unnecessary loading the task details page if user is browsing through the list of human tasks in worklist grid.
- This option can be enabled from worklist administration page.

#### Figure 14–4 Enable External Window option

ORACLE: BPM Worki	ist					GL c	fssuser	•	
				Administration	Evidence Search	Approval Groups	Task Co	nfiguration	•
Application Preferences	Application Preferences						<u>S</u> ave	Revert *	
		Default assignment filter	Me & My Group All					-	^
		Worklist Action Menu	Show   Hide					- 1	
		File Types Allowed for Upload							
		Display task details in external window	Enable O Disable						~