

Oracle Insurance Data Gateway

Installation Guide

Version 1.0





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Oracle Insurance Data Gateway Installation Guide

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CONTENTS

Preface	5
Audience	5
Conventions	5
Documentation Accessibility	5
Customer Support	5
Contact	6
Follow Us	6
Getting Started	7
Release Download	7
System Prerequisites	7
Database Configuration	/ 8
OIDG Database Schema Creation	
RCU (Infra) Schemas Creation	0
OIDG Installation Requirements	10
Base Path and Java Home Update	.10
Folder Structure and Release Files Maintenance	.10
Folder structure:	.10
Input Parameters for OIDG Installation	13
OIDG Parameter Configuration Steps	.13
Linux User/Group Section	.13
Database Section	.14
Middleware Section	.15
Confirmation Section	.16
Credentials Section	.16
Confirmation	.17
OIDG Pre-Script Installation	18
	10
OIDG Installation Manual Steps	19
Defining JNDI Providers	.19
Creating Security Policies	.20
OIDG Post-Script Installation	23
Deploying ACORD_AML Libraries	24
OIDG Release Upgrade	26
OIDG Release Upgrade Pre-Requisite	.26
OIDG Release Deployment / Un-Deployment Process	.27
OIDG Release Un-Deployment Process	.29
OIDG Release Deployment Process	.29
· ·	

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Setting Up the Enterprise Scheduler Service Jobs	31
Configuring Daily Error Log	37
Updating OIDX.Properties file	39
Email Configuration for Notifications	40
Acquiring mail server SSL certificate	40
Importing the mail server SSL certificate into keystore	41
Synchronizing certificates from central store to local file instance	43
Configuring Workflow Notification Properties	43
Configuring Email Driver Properties	45
Troubleshooting	47
Verifying Trust Keystore	48
Reviewing the WebLogic start script	48
OIDG GnuPG Encryption and Decryption	49
Verifying GnuPG-Agent	49
Generating GnuPG Key	49
Exporting and Importing secret sub keys	51
Trusting the keys	52



PREFACE

Welcome to the Oracle Insurance Data Gateway (OIDG) Installation Guide. This guide describes installation and configuration steps for the OIDG application.

Audience

This guide is intended for users who will be deploying OIDG.

Conventions

The following text conventions are used in this document:

Convention	Description		
bold	Bold type indicates information you enter.		
italic	Italic type indicates emphasis or placeholder variables for which you supply particular values.		
monospace	Monospace type indicates commands, code in examples, and text that appears on the screen.		

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Chapter – 1

GETTING STARTED

Please follow this document closely while installing or upgrading to the OIDG.

NOTE Any missing configuration may lead to an inappropriate setup.

Release Download

Download the OIDG release zip file from the Oracle Software Delivery Cloud and extract into a local folder.

System Prerequisites

Following system setup is required before moving further with this documentation.

Name	Version	Notes
Oracle WebLogic Server	12.2.1.0.x	
Oracle SOA Suite	12.2.1.0.x	
Oracle Java SE 8	1.8.x	
Oracle Database Server	12.1.0.2.0	
GnuPG	2.2.1	https://www.gnupg.org/
Chef	12.6.0	Download compatible Chef package for your Operating System from the below URL. <u>https://downloads.chef.io/chef/stable/12.6.0</u>
ACORD [®] AML libraries		Download ACORD AML libraries



Database Configuration

OIDG Database Schema Creation

A database schema needs to be created on a new database when OIDG is installed for the first time.

Follow these steps to setup a new tenant database schema:

- 1. Connect to the OIDG DB or PDB with SYSDBA privilege.
- 2. Create a table space to hold data for the OIDG schema.

```
<u>SQL command:</u>
Create tablespace OIDX datafile '[filepath
location/filename.dbf]' size 500M autoextend on;
```

- Run \AML Engine\Database\Installation\OIDG_PDB_SYSDBA.sql Make sure to rename the schema owner name, password, and table space name before applying the script.
- 4. Connect as the schema owner user.
- 5. Run **\AML Engine\Database\Installation\SCI001_OIDG_B?_Schema.sql** to create the DB schema.

Note: "?" Denotes the build number which needs to be installed.

Follow these steps to migrate the database schema for OIDX from previous builds to the current version:

 Connect as the schema owner user and apply all the migration scripts in the AML Engine\Database\Migration folder to update the DB components if the migration scripts have not been applied. To see if a migration script has been applied or not, exam the rows in the DBHISTORY table.

Make sure the scripts are applied in the order of the build numbers. For example, if the current OIDG build is 1, and has to be upgraded to build 3, then you should upgrade to **SCU00?_OIDG_B1ToB2.sql** and **SCU00?_OIDG_B2ToB3.sql**.

Note: "?" Denotes the serial number of the script file.

RCU (Infra) Schemas Creation

Create the pre-requisite Oracle SOA Infrastructure RCU schemas according to the product documentation provided with Oracle SOA Suite.



Note:

The RCU prefix, user, and common password defined during RCU setup will also be needed for OIDG product installation.

Do not use special characters [!'@#\\$%^\&*()_+*] in the RCU prefix name.



Chapter – 2

OIDG INSTALLATION REQUIREMENTS

This chapter includes following topics:

- Base Path and Java Home Update
- Folder Structure and Release Files Maintenance

Base Path and Java Home Update

Please refer to the following steps for OIDG script update:

- 1. Go to the **OIDG-1.0-automation\chef\cookbooks\fsgbu_oidx_base\attributes** and update the following properties in **default.rb**
- 2. Update the user home base path for the Linux user (used for FMW installation)

```
default['fsgbu_oidx_base']['base_home'] = '/scratch'
# FSGBU base variables
default['fsgbu oidx base']['base home'] = '/scratch'
```

This path is combined with the username you entered during installation. It will be recognized as the "user home base bath", **Example**: /scratch/username (or) /u01/username

3. Update the JAVA home path

```
default['fsgbu_oidx_base']['java_home'] = '/usr/java/jdk1.8.0_144'
# Java attributes
default['fsgbu_oidx_base']['java_home'] = '/usr/java/jdk1.8.0_144'
```

Folder Structure and Release Files Maintenance

Create the following folder structure inside the user base path to maintain release files.

Folder structure:

/<user home base>/Chef/0IDG_1.0/

Example:

/u01/Chef/0IDG_1.0/

Copy the following files from the OIDG release package to /<user home base>/Chef/0IDG_1.0/



- /AdminView/AdminView.ear
- /AdminView/AdminView.properties
- /DataSrv/OIDX_POC_DSL.ear
- /Portal/IDXPORTAL.ear
- /PrcOrch/OIDX_PrcOrch_cfgplan.xml
- /PrcOrch/sca_OIDX_PrcOrch.jar
- /QuickView/QuickView.ear
- /QuickView/QuickView.properties
- /ResultProcessing/sca_ResultProcessing.jar
- /ResultProcessing/ResultProcessing_cfgplan.xml
- /SrvVirt/log4j-api-2.9.1.jar
- /SrvVirt/log4j-core-2.9.1.jar
- /SrvVirt/OSBCoreCustomizationFile.xml
- /SrvVirt/SVCore_SrvVirt.sbar



Figure 1: OIDG release package folder structure

Copy the following files from the release package to /<user home base>/Chef/0IDG_1.0/config

- /SrvVirt/adapter-oidx-cache-config.xml
- /DataSrv/configfilesecurity.key
- /DataSrv/OIDX.properties
- /DataSrv/oidx_cache_config.xml
- /DataSrv/oidx_dsl_log4j.xml
- /DataSrv/PIIConfig.xml



/scratch/Chef/OIDG_1.0/config
Name
adapter-oidx-cache-config.xml configfilesecurity.key OIDX.properties
i oidx_cache_config.xml oidx_dsl_log4j.xml
PllConfig.xml

Figure 2: OIDG release package folder structure



Chapter – 3

INPUT PARAMETERS FOR OIDG INSTALLATION

This chapter includes following topics:

- OIDG Parameter Configuration Steps
 - Linux User/Group Section
 - Database Section
 - o Middleware Section
 - o Confirmation Section
 - o Credentials Section

OIDG Parameter Configuration Steps

1. Go to the path /OIDG-1.0-automation/chef/ and run: sh oidg_config.sh with root user



2. Provide the required information for the following inputs

Linux User/Group Section

1. Linux Username

• Example: oracle (the user you installed Fusion Middleware with)

2. FMW Products Installed Group

• Example: *oinstall* or *oracle* (the user group you installed Fusion Middleware with)





Linux User/Group inputs Please provide the Linux Username/Groupname with which Oracle Fusion Middleware was installed Linux Username (FMW Products installed) : testuser Linux Groupname (FMW Products installed): testuser

Database Section

OIDG and RCU schemas are created in the same database instance.

IS OIDG Schema and RCU Infra Schemas were created on the Same Database/Pluggable Database (y/n): y

IS OIDG Schema and RCU Infra Schemas were created on the Same Database/Pluggable Database (y/n) : y

Enter the following values to proceed further:

Database hostname:	Database hostname		
Database service name:	DB Instance name		
Database port:	Listener port (Example: 1521)		
Database OIDG User name:	OIDG schema name		
RCU Infra Schema Prefix:	RCU Schema's Prefix		
Database inputs			
Note: OIDG Schema and RCU Infra Schem	mas needs to be created on the Same Database/Pluggable Database		
Please provide the Database/Pluggable Database details where OIDG Schema and RCU Infra Schemas created			
Database hostname : tes	st.us.test.com		
Database service name : tes	: testpdb.us.oracle.com		
Database port : 12:	: 1212		
Please provide the OIDG Schema name			
Database OIDG User name : tes	3t		
Please provide the Prefix of RCU Schemas			
RCU Infra Schema Prefix : DEV	7		

OIDG and RCU Schemas are created in Different database instances.

IS OIDG Schema and RCU Infra Schemas were created on the Same Database/Pluggable Database (y/n): n



tabase inputs

IS OIDG Schema and RCU Infra Schemas were created on the Same Database/Pluggable Database (y/n)

Enter the DB inputs:

Database hostname
DB Instance name
Listener port (Example: 1521)
RCU Schema's Prefix
OIDG schema name
OIDG Database hostname
OIDG DB Instance name
OIDG Listener port (Example:
1521)

Database inputs	
IS OIDG Schema and RCU Infra	Schemas were created on the Same Database/Pluggable Database (y/n) : n
Please provide the Database/P	luggable Database details where OIDG Schema and RCU Infra Schemas created
RCU Database hostname	: test.us.test.com
RCU Database service name	: testpdb.us.test.com
RCU Database port	: 1212
Please provide the Prefix of 1	RCU Schemas
RCU Infra Schema Prefix	: DEV
Please provide the OIDG Schem	a name and Database Details
Database OIDG User name	: OIDG
OIDG Database hostname	: test2.us.test.com
OIDG Database service name	: testppdb.us.test.com
OIDG Database port	: 1212

Middleware Section

- OIDG Fusion Middleware HOME Path:
 - Enter the middleware home path including Oracle_Home





Confirmation Section

Correct? (y/n) : (y/n) DB details: test.us.test.com:1212/testpdb.us.oracle.com, schema prefix: DEV Connect String : test.us.test.com:1212/testpdb.us.oracle.com Correct? (y/n) :

Credentials Section

WebLogic Credentials

- Set the WebLogic User Password
 - You have to use this password for WebLogic login after domain creation.



Database Credentials

• Set the RCU Password for all Schemas

Provide the common password used for the RCU Infra Schemas

• Set the password for OIDG's schema:

Provide the password for the OIDG db schema



GnuPGCredentials

• Set the password for PGP keys

Set the password for PGP Key creation for Encryption/Decryption





Security Realm user Credentials

Note: Users **oidguser** and **oidgpii** are created for configuring Security Credentials in EM and Encryption of PII Data

• oidguser's Password:

Set the password for user: oidguser

• oidgpii's Password:

Set the password for user: oidgpii



Confirmation

Please verify and resolve any errors that have occurred before running sh install_oidg_1.0.sh





OIDG PRE-SCRIPT INSTALLATION

- Go to the path /OIDG-1.0-automation/chef/ and run: sh install_oidg_1.0.sh from root.
 [root@HostName chef] # sh oidg_config.sh
- 2. Please check the status of Chef Script: Finished (or) failed.

```
Running handlers:
Running handlers complete
Chef Client finished, 31/35 resources updated in 05 minutes 55 seconds
[root@HostName chef]#
```

Note: Script execution takes about 30 – 40 minutes.

3. Upon the completion of the install_oidg_1.0.sh script, please refer to Chapter 5.

Follow these steps in case of pre-script execution failures:

- 1. Drop and Re-create the RCU Schema.
- 2. Delete the middleware user_projects folder and domain_registry.xml. **Example**: /FMW_HOME/Oracle/Middleware/Oracle_Home/user_projects
- 3. Delete the OIDG folder. **Example**: /FMW_HOME/Oracle/Middleware/oidg
- 4. Delete ora_stage folder. Example: /FMW_HOME/oraStage
- 5. Kill all the running WebLogic processes if there are any.
- 6. Re-run from the input parameters for OIDG Installation chapter with new RCU Schemas.



Chapter – 5

OIDG INSTALLATION MANUAL STEPS

This chapter includes following topics:

- Defining JNDI Providers
- Creating Security Policies

Defining JNDI Providers

JNDI Provider resources are required by OSB components to locate and communicate with Enterprise Java Beans (EJB) components.

- 1. Log on to the Service Bus console (http://hostname:port/sbconsole), where "hostname:port" are the host name and port of your administration server.
- In the project explorer, navigate to All Projects → System → JNDI Providers. Verify that DataServices_JNDIProvider is defined.
 If it is defined, skip steps 3-7. If not, continue with the rest of the steps.
- 3. In the upper left corner of the page, click Create to begin a new update session.
- 4. Right-click the JNDI Providers folder to display the context menu, then click Create → Create JNDI Provider.



Figure 3: Create JNDI Provider

5. In the Create JNDI dialog, enter "DataServices_JNDIProvider" for Resource Name. Click Create.



Create JNDI		×
* Resource Name	DataServices_JNDIProvider	ב
Descriptior	DataServices_JNDIProvider	//
0	Create Car	ICEI

Figure 4: Create JNDI dialog

- 6. On the JNDI Definition page, fill in the following fields:
 - a. **Provider URL** the host name or IP and port of the managed server to which OIDX_POC_DSL is targeted (Example: "t3://hostname:port") i.e. 'AML Server'.
 - b. Initial Context Factory select "weblogic.jndi.WLInitialContextFactory"
 - c. User Name, New Password, and Confirm Password the login credentials for the server. Usually credentials are the same as administration server login credentials.

JNDI Definition 4 🔞 🕨	日 自 - 0
⊿ General	
Description DataServices_aNDIProvider	
A Configuration Details	
Provider URL 13//(Machine Name): (AML_Server port)	
Initial Context Factory weblogic ind. WLInitialContextFactory	
User Name username	
New Password	
Confirm Password	
JNDI Request Timeout 0	
JNDI Cache 🔲 Enabled	
A Environment Parameters	
JNDI Cache 📃 Enabled	

Figure 5: JNDI Definition

7. Click Save located on the upper-right corner of the page.



Figure 6: Save icon

Creating Security Policies

- 1. Login to the WebLogic Enterprise Manager (<hostname>:> :< Admin Server Port Number>/em) with WebLogic credentials.
- 2. WebLogic Domain \rightarrow Security \rightarrow System Policies.





Figure 7: WebLogic Enterprise

3. Under Search section, select Name as Includes.

J Search			
Select a grant type and enter search ke	eyword for codebase	or principal to query syst	em security
Туре	Codebase	•	
Name	Starts With 🔻		•
View 👻 🎽 Create	Starts With Includes	Edit 🗙 Delete	

Figure 8: Search section

4. Type "OIDX_POC_DSL" in the search box, and click the arrow icon.

eyword for codebase o	r principal to query system s
Codebase	•
Includes OID	K_POC_DSL
	eyword for codebase o Codebase Includes 💌 OID)

Figure 9: Search box

5. Check to see if the search results include a row as shown below.

View 💌	Create	💾 Create Like	🖋 Edit	🗙 Delete
_				
Name				
file:\${or	acle.deployed.app	p.dir}/OIDX_POC_DSL	\${oracle.depl	oyed.app.ext}

Figure 10: Search result area

6. If this policy does not exist, create it by following these steps:



	Туре	Codebase	•	
	Name	Includes 🔻	oracle.wsm.console.core.vi	
View - Create:	- 6	Create Like	🖉 Edit 💥 Delete	
1				
Name				
file:\${domain.home}/s	ervers/\${v	reblogic.Name)	tmp/_WL_user/oracle.wsm.cor	sole.core.view/
file Sloracle deployed	ann dirlio	racle wsm cons	ole core viewS(oracle deploye	d app ext)

Figure 11: Create Like

- a. Select the row that includes the text **oracle.wsm.console.core.view**, and then click Create Like.
- b. On the Create System Grant Like page, change the text in the Codebase box to the following:

file:\${oracle.deployed.app.dir}/OIDX_POC_DSL\${oracle.deployed.app.ext}

- c. Select the **CredentialAccessPermission** row in the Permission Class table and click Edit.
- d. In the Edit Permission dialog change Permission Actions from **read,write,delete,update** to just **read**. Click Ok.
- e. Click Ok again.



Chapter-6

OIDG POST-SCRIPT INSTALLATION

1. After completing the steps in Chapter 5, go to the path **/OIDG-1.0-automation/chef/** and run the following command from root to complete the installation

```
Command: sh install_oidg_1.0_post.sh (from root)
[root@HostName chef]# sh install_oidg_1.0_post.sh
```

2. Please check the status of Chef Script: Finished (or) failed

```
Running handlers:
Running handlers complete
Chef Client finished, 31/35 resources updated in 05 minutes 55 seconds
[root@HostName chef]#
```

Note: Script execution usually takes about 20-30 minutes to complete all the deployments.



Chapter – 7

DEPLOYING ACORD_AML LIBRARIES

Follow these steps:

- 1. Log into the Service Bus Console (<hostname>:<Admin Server port number>/sbconsole).
- 2. Create a new update session by clicking Create.



Figure 12: Oracle Service bus console

3. Click Import.



Figure 13: Import

4. Click Choose File and upload the file.



Figure 14: Choosing and uploading file

5. Click Next (right arrow).



Figure 15: Next button



6. Click Import.

port Config Jar				
Cancel	(Input	Source Inpu	t Configuration	Import
🐁 🖷 🗐 Detach				
Resource		Operation	Туре	References
🔺 🗹 🛅 All Projects			All Projects	
🕨 🕢 🛅 SVShared			Project	
dvanced Settings Security	 Preserve Security and F Preserve Credentials (U Preserve Access Control 	Policy Values Isername/Password) Il Policies		
Operational	Preserve Environment \ Preserve Operational Va	/ariable Values alues		

Figure 16: Import button

7. Click Close.

mport Config Jar >											
Import Another Import completed successfully 8 86 of 86 resource(s) have been imported with no issues. Resources With Issues											
View 💌 🖶 🔁 Save As 🗊 De	tach										
Name	Path	Messages									
No Resource items to display											

Figure 17: Close button



Chapter – 8

OIDG RELEASE UPGRADE

This chapter includes following topics:

- OIDG Release Upgrade Pre-Requisite
- OIDG Release Deployment / Un-Deployment Process
- OIDG Release Un-Deployment Process
- OIDG Release Deployment Process

OIDG Release Upgrade Pre-Requisite

Delete old files from the following locations and replace them with the new release files:

- 1. Copy the following files from the OIDG release package to /<user home base>/Chef/OIDG_1.0
 - o AdminView.ear
 - AdminView.properties
 - o log4j-api-2.9.1.jar
 - o log4j-core-2.9.1.jar
 - OIDX_POC_DSL.ear
 - OIDX_PrcOrch_cfgplan.xml
 - OSBCoreCustomizationFile.xml
 - o QuickView.ear
 - o IDXPORTAL.ear
 - o sca_ResultProcessing.jar
 - ResultProcessing_cfgplan.xml
 - QuickView.properties
 - o sca_OIDX_PrcOrch.jar
 - SVCore_SrvVirt.sbar



/scratch/Chef/OIDG_1.0
Name
遇
🎍 config
QuickView.properties
AdminView.properties
TLMMessaging.xsd
SVCore_SrvVirt.sbar
sca_OIDX_PrcOrch.jar
QuickView.ear
OSBCoreCustomizationFile.xml
OIDX_PrcOrch_cfgplan.xml
OIDX_POC_DSL.ear
🜃 log4j-core-2.9.1.jar
🜃 log4j-api-2.9.1.jar
AdminView.ear
ResultProcessing_cfgplan.xml
sca_ResultProcessing.jar
IDXPORTAL.ear

Figure 18: OIDG release package

- 2. Copy the files below from the OIDG release package to **/user home** base/Chef/OIDG_1.0/config
 - o adapter-oidx-cache-config.xml
 - o configfilesecurity.key
 - o OIDX.properties
 - oidx_cache_config.xml
 - o oidx_dsl_log4j.xml
 - PIIConfig.xml

/scratch/Chef/OIDG_1.0/config
Name
1
adapter-oidx-cache-config.xml 🔮
configfilesecurity.key
OIDX.properties
🔮 oidx_cache_config.xml
📄 oidx_dsl_log4j.xml
PllConfig.xml

Figure 19: OIDG release package

OIDG Release Deployment / Un-Deployment Process

Go to the path /OIDG-1.0-automation/chef/ and run: sh dep_undep_app_config.sh from root.



3. Select 1 for OIDG Deploy/Un-Deploy (or) 2 for Exit





4. Select the components you want to undeploy and replace from the new release package.

1)	AdminView	[У	/	n]	:	(y/n)
2)	QuickView	[У	/	n]	:	(y/n)
3)	Data Services	[У	/	n]	:	(y/n)
4)	SOA Composite	[У	/	n]	:	(y/n)
5)	Service Virtualization	[У	/	n]	:	(y/n)
6)	IDX Portal	[У	/	n]	:	(y/n)
7)	SOA Result Processing	[У	/	n]	:	(y/n)
Typ	e the number 1 for OIDG Deploy & Und	lep!	loy D	(E epl	x :	: 1 ג ז	/ : Inde	2):1
Typ Con	e the number 1 for OIDG Deploy & Und	to	Loy D D	(E epl	.oy	: 1 & U	/ : Jnde	2) : 1 eploy under OIDG
Typ Con ==== 1)	he the number 1 for OIDG Deploy & Und firm the component(s) which you want AdminView [y/.n]	to to	Loy D ====	(E epl	х : .0У	: 1 & (/ : Jnde	2) : 1 eploy under OIDG
Typ Con 1) 2)	AdminView [y / n] QuickView [y / n]	to :	Loy D D ====	(E epl	х : .0У	: 1 & U	/ I	2) : 1 eploy under OIDG
Typ Con 1) 2) 3)	AdminView [y / n] QuickView [y / n] Data Services [y / n]	to ::	Loy D D ===	(E epl	х : .0У	: 1 & (/ : Jnde	2) : 1 eploy under OIDG
Typ Con 1) 2) 3) 4)	be the number 1 for OIDG Deploy & Und afirm the component(s) which you want AdminView [y / n] QuickView [y / n] Data Services [y / n] SOA Composite [y / n]	to : : : :	Loy D D	(E epl	х : .оу	: 1 & T 	/ : Jnde	2) : 1 eploy under OIDG
Typ Con 1) 2) 3) 4) 5)	be the number 1 for OIDG Deploy & Und afirm the component(s) which you want AdminView [y / n] QuickView [y / n] Data Services [y / n] SOA Composite [y / n] Service Virtulization [y / n]	to ==== : : :	Loy D D ===	(E epl	х : .0У	: 1 & U 	/ : Jnd(2) : 1 eploy under OIDG
Typ Con 1) 2) 3) 4) 5) 6)	AdminView [y / n] QuickView [y / n] Data Services [y / n] SOA Composite [y / n] Service Virtulization [y / n] IDX Portal [y / n]	to	Do Do	(E epl	х : .0У	ε τ ====	/ : Jnde	2) : 1 eploy under OIDG

- 5. Provide the Linux user/group and Middleware Home details.
 - o Linux Username:
 - Example: oracle (the user you installed Fusion Middleware with)
 - o Linux Groupname:
 - Example: oinstall or dba (the group you installed Fusion Middleware with)
 - o FMW Middleware Home:
 - Middleware home path including Oracle_Home Example: /Path/Oracle/Middleware/Oracle_Home



O All the inputs given are Correct? (y/n) : (y/n)

Linux Username (FMW Products installed) : testuser Linux Groupname (FMW Products installed) : testgroup FMW Middleware Home (Ex : /Path/Oracle/Middleware/Oracle_Home) : /u01/testuser/Oracle/Middleware/Oracle_Home All the inputs given are Correct? (y/n) : y

o WebLogic User Password



6. Check the Confirmation



OIDG Release Un-Deployment Process

- 1. Go to path /OIDG-1.0-automation/chef/ and run: sh install_undep_app.sh from root
 [root@HostName chef]# sh install_undep_app.sh
- 2. Check the status of Chef Script: Finished or Failed

```
Running handlers:
Running handlers complete
Chef Client finished, 31/35 resources updated in 05 minutes 55 seconds
[root@HostName chef]#
```

Please verify the status of Un-Deployment components from WebLogic console and EM.

OIDG Release Deployment Process

1. Go to the path /OIDG-1.0-automation/chef/ and run: sh install_dep_app.sh from root.

[root@HostName chef]# sh install_dep_app.sh

2. Check the status of Chef Script: Finished or Failed.

```
Running handlers:
Running handlers complete
Chef Client finished, 31/35 resources updated in 05 minutes 55 seconds
[root@HostName chef]#
```



Please verify the status of deployed components from the WebLogic and EM consoles.



Chapter - 9

SETTING UP THE ENTERPRISE SCHEDULER SERVICE JOBS

This chapter includes following topics:

- Configuring Daily Error Log
- Updating OIDX.Properties file

1. Login to the Enterprise Manager console

This chapter describes how to configure jobs in the Enterprise Scheduler Services (ESS) for batch request processing. Before proceeding with this section, you must configure your parties and contracts in the AdminView. Please refer to the *Oracle Insurance Data Gateway User Interface Guide* for more info on this.

Once your parties and contracts have been established you can configure schedules for batch jobs following these steps:

Example: http://<hostname>:<Admin Server Port Number>/em

Figure 20: Enterprise Manager console login page

- 2. Click the Target Navigation at the top-left corner.
- 3. Click Scheduling Services > ESSAPP (ess_server1).



ORACLE Enterprise Manager Fusion Mic	ORACLE' Enterprise Manager Fusion Middleware Control 12c weblogic V 🚥									
Target Navigation						î	▼ 💽 ▼ / Jan 24,	Nuto Refresh 0	Dff •	
Application Deployments SOA	you own the edit sess	ion lock. T	o obtain the lock, o	lick "Lock and Edit" ir	the Change Center menu.				×	
 WebLogic Domain Wision_domain3 	Server									
r_ AdminServer r_ ami_server1	Name /	AdminServ	er							
neres_server1	Listen Port	7001								
osb_server1	reate 🗙 Delete	Contro	- E							
Concrence Clusters Metadata Repositories The MFT		Status	Cluster	Machine	State	Health	Listen Port	CPU Usage (%)		
Scheduling Services	dmin)	+		UnixMachine_1	Running	ок	7001	1.22	1_	
ESSAPP (ess_server1)		1		UnixMachine_1	Running	ок	7007	0.44		
ESSAPP (mft_server1)		1		UnixMachine_1	Running	ок	7002	0.82		
User Messaging Service		1		UnixMachine_1	Running	ок	7003	2.75	Ŧ	

Figure 21: Scheduling services

4. Click Scheduling Service \rightarrow Job Metadata \rightarrow Job Definitions.

OR	ACLE [®] Enterpri	se Manager Fusion Middleware Control 12c	👫 WebLogic Domain 💌 weblogic 💌
te	Contract of the second sec	start Up 📕 Shut Down	Jan 24, 2018 3:03:02 AM PST
Top 10	Home	Top 10 Ready Job Requests	
	Control	•	
Scop	Logs	rice All Scheduling Services sharing the ESS repository	
Requ	Job Requests	Job Definition Submitted By Application Execution Type Description	
No Ru Show /	Performance	»	
	Request Processor	•	
⊿ Sc	Request Dispatcher	Response and Load	
	Purge Policies	1.0	
С	Configuration	Enabled Deployed On 0.6	
R	Work Allocation	Ves ess_server1 0.2	1.0
り	Job Metadata	Job Definitions	0.8
d Cr	Hosting Applications	Job Sets	0.2
	Web Services	02:48 AM 02:50 02:52 02:54 02:5 January 24 2018	6 02:58 03:00 03:02
	Security	Average Processing Time over last hour (minutes) Requests	s Completed over last hour
-	Target Sitemap	No job requests	Table View
	Target Information	hour.	

Figure 22: Job Definitions

5. Job definition screen appears.



ORACLE	ORACLE Enterprise Manager Fusion Middleware Control 12c									
E ESSAPP Scheduling Scheduling	Service V Start Up Start Up	hut Down			Jan 24, 2018 3:04:30 AM PST 👈					
Job Definition	S				P Related Links 💌					
Select the application (J2EE application deployment name) for	which you want to view the job definitions.								
🔺 Filter Criteria										
Application	EssNativeHostingApp(V1.0) ▼									
Name										
Package										
	Go									
Results										
Treate	🖊 Edit 🗙 Delete 🧷 Web	Service Policies 💌								
Name	Display Name	Package	Job Type	Description						

Figure 23: Job Definitions

6. Click Create and Enter Name, Display Name, Package, Description and Job Type. As shown in the table below:

Name Example		Description
Name	Alamere_IN_Carrier_PolicySync	Job name
Display	Alamere IN Carrier	Job display name
Name	PolicySyncAlamere	
Package	/com/oracle/ejb	File Transfer Service
		package. Always enter this
		value as '/com/oracle/ejb'
Description	Alamere IN Carrier	Job description
-	PolicySyncAlamere	-
Job Type	OnewayWebserviceJobType	Job type. Always select this
		field value as
		"OnewayWebserviceJobType"

7. Click Select Web Service.

Note: Select Web Service appears only after you select the Job Type as OnewayWebserviceJobType.

8. Enter web service URL at WSDL and Click Go.

Select Web Service	•			×
* WSDL	http://		/OIDX_POC_DSL-EJB-webapp/SchedulerServic	Go
* Web Service Type	Other	•		
			ок	Cancel

Figure 24: Select web service



Example URL: http://<hostname>:<AML Server Port Number>/OIDX_POC_DSL-EJBwebapp/SchedulerService?WSDL

9. Fill in the details as shown in the table below.

Select Services	SchedulerServiceMgrEJBBeanService
Port Type	SchedulerServiceMgrEJBBeanPort
Operation	fileTransferService

Payload:

```
<PartyShortName></PartyShortName>
<PartyType></PartyType>
<TranactionType></TranactionType>
<BusinessServiceType></BusinessServiceType>
<Direction></Direction>
<Mchnsm></Mchnsm>
<Environment></Environment>
<EndPointId></EndPointId>
```

Gather all the payload values from AdminView to configure jobs.

a. PartyShortName and PartyType



Figure 25: Party Details section

b. TransactionType:



Environment Parties Contracts	Configuration											
AlamereNonMFTLocalFile >> Poll Endpoints	cy Synchronization Batch (Inbound)					Endpoint Detai	ls					
				New	Delete			View Properties	Edit	Save	Cancel	
			•		٠	* Endpoint Name	FTP					
Endpoint Name	Endpoint Type	Mechanism	Environment	Activat Status	ion	Endpoint Type	Data					
	data			Active		* Transaction Type	Policy Sync	chronization		•		
			Tra	ansacti	on Type	• Shore me	PolicySyncl	hronizationProcess				
						* Mechanism	FTP			•		
						* Activation Status	Active			٠		
						* Environment	QA1			٠		
						* FTP Host						
						* Port].

Figure 26: Endpoint Details section

c. BusinessServiceType:

AlamersNonMFtLocalFile Business Services		E	Business Serv	vice Details			
	New Delete			View Endpoints	Edit	Save	Cancel
•	•		Business Service	Policy Synchronization Batch (Inbou	nd)	Ŧ	
Business Service	Activation Status		Short Name	PolicySynchronizationBatch	Busine	ss Servi	ice Type
Policy Synchronization Batch (Inbound)	Active		Activation Status	Active		Ŧ	
		ŀ	iype				_

Figure 27: Business Service Details section

d. Direction value is always Inbound

e. Mchnsm and Environment:

Environment Parties Contracts Config	uration									
AlamereNonMFTLocalFile >> Policy Sync	nronization Batch (Inbound)					Endpoint Dotai	le			
Enupoints				New Delete	0	Enapoint Detai	View Properties	Edit Sava	Cancel	*
			•	New Delete	•	Endpoint Name	Policy_FTP	Cut Save	Cancer	
Endpoint Name	Endpoint Type	Mechanism	Environment	Activation Status		Endpoint Type	Data			L
Policy_FTP	data	FTP	QA1	Active		Transaction Type	Policy Synchronization	Ŧ		L
					٠	Short Name	PolicySynchronizationProcess			L.
				MCHNSM		Mechanism	FTP	Ŧ		
						Activation Status	Active	Ŧ		
				Environme	ent	Enviro- nent	QA1	Ŧ		
						FTP Host	host.us.com			
						Port	22			-

Figure 28: Endpoint Details section for mechanism and environment

f. EndPointId:



Environment Parties Configuration						
Test >> Policy Synchronization Batch						
Endpoints Contract Number DA1						
Activation Status						
Active						
n /						

Figure 29: AdminView application Data Endpoints section

Example:

```
<ns1:FileTransferService xmlns:ns1="http://oracle.oidx.com/wsdl">
<PartyShortName>AlamereNonMFTLocalFile</PartyShortName>
<PartyType>Carrier</PartyType>
<TranactionType>PolicySynchronizationProcess</TranactionType>
```

```
<BusinessServiceType>PolicySynchronizationBatch</BusinessServiceType>
```

```
<Direction>Inbound</Direction>
<Mchnsm>FTP</Mchnsm>
<Environment>QA1</Environment>
<EndPointId>481</EndPointId>
</ns1:FileTransferService>
```

Select Web Service		<
* WSDL	http:// <hostname>:<aml_port>/OIDX_POC_DSL-EJB-webapp/SchedulerService Go</aml_port></hostname>	
* Web Service Type	Other •	
* Services	SchedulerService	
* Port Type	SchedulerServicePort	
	* Operation FileTransferSet * Payload * Payload * Payload * Cast:FileTransferService xmlns:ns1="http://oracle.oidx.com/wsdl"> < AlamereNonMFTLocalFile Casteric+PartyType> < TranactionType>PolicySynchronizationProcess /artanactionType < BusinessServiceType>PolicySynchronizationBatch / <td></td>	

Figure 30: Select Web Service section



10. Click Ok to create the Job Definition.

Configuring Daily Error Log

This section is used to configure Enterprise Scheduler Services by using the ESS application in such a way that you can schedule a particular time to execute the Daily Error Log report generation process.

Follow these steps to configure Daily Error Log report on Enterprise Scheduler Services server.

- 1. Login to Enterprise Manager Console.
- 2. Click Scheduling Services > ESSAPP (ess_server1).

CALLE Enterprise Manage	er Fusion Middleware Control 12c					P1 WebLagic Dom	en v vebi	agic v in
arget Navigation	=					°a• ≅	 Auto Refre 	on or
New w	-					9	w 13, 2016 3.04	32 AM MOT 🔹
En Acolization Deployments En SIGA En Vinescupic Connain A Ry <u>EntraCalonation</u> By Administration By anti, provert By anti, provert	Server Kane Administerer Rest skiftaar ut ansde s Linten Port 2001	-						
B_ col_server1	mate X Datata Control v DP							
E_ unit_server1		Status Cluster	Machine	State	Health	Listen Port	CPU Usage (%)	Usage (MD)
Coherence Clusters	(min)			Running	OK	7001	0.11	736.60
Metadata Repositories			Machine_1	Shuldown	Unknown	7007	Unavailable	Unavailable
Scheduling Services		+	Machine_1	Running	OK	7006	0.11	390.3
[2], ESSAPP (ess_server1)			Machine_1	Shuldown	Unknown	7003	Unavailable	Unavailable
		+	Machine_1	Shutdown	Unknown	7004	Unavailable	Unavailable
			Machine_1	Shuldewn	Unknown	7005	Unavailable	Unavailable

Figure 31: Enterprise Manager Console after clicking Scheduling Services

3. Click Scheduling Service \rightarrow Job Metadata \rightarrow Job Definitions.

		se Manager Fusion Middleware Control 12c weblogic Domain 🔻 weblog	,ic 🔻
E	FSSAPD • Scheduling Service •	Jan 24, 2018 3:03:02	2 AM PST
Top 1	0 Home	Top 10 Ready Job Requests	
	Control	÷	
Sco	Logs	ice All Scheduling Services sharing the ESS repository	
Req	Job Requests	Job Definition Submitted By Application Execution Type Description	
No F Show	Performance	»	
	Request Processor	▶	
	C Request Dispatcher	▶ 🖉 Response and Load	
	Purge Policies	10	
	C Configuration	Enabled Deployed On 0.6	
	R Work Allocation	Ves ess_server1 0.2	- 1.0
	Job Metadata	Job Definitions	0.8
4.0	Hosting Applications	Job Sets	0.2
10	Web Services	Incompatibilities 02:48 AM 02:50 02:52 02:54 02:56 02:58 03:00 03:0 January 24 2018 340407 242018	2
	Security	Average Processing Time over last hour (minutes) Requests Completed over last hour	
	Target Sitemap	(No job requests Table Completed in list 1	/ View
	Target Information	hour.	

Figure 32: Enterprise Manager Console after clicking Job Definitions



4. Click Create and Enter Name, Display Name, Package, Description and Job Type. Example:

Name	Daily_Error_Log	Job name
Display Name	Daily_Error_Log	Job display name
Package	/com/oracle/ejb	Error log service package name. Always enter this value as '/com/oracle/ejb'
Description	Daily Error Log	Job description
Job Type	OnewayWebserviceJobType	Job type.Always select this value as 'OnewayWebserviceJobType'

5. Click Select Web Service.

ESSAPD O Scheduling Service * > Start Up Shut Down
Scheduling Service Home > Job Definitions > Create Job Definition
Create Job Definition
Application EssNativeHostingApp(V1.0)
3 Job Definition
* Name Daily_Error_Log
[®] Display Nam Daily_Emor_Log
Package /cracle/apps/ess/custo <mark>n /com/cracle/ejb</mark>
Description Daily_ <u>Enror_Log</u>
* Job Typ Cnews/WebserviceJobType V Select Web Service
Class Name oracle as scheduler.job.webservice.OnewayWSJob
Application Defined Properties

Figure 33: Creating Job Definition section

Note: Select Web Service appears only after you select the Job Type as OnewayWebserviceJobType.

6. Enter web service URL at WSDL and Click Go.

Example URL: http://<hostname>:<AML Server Port Number>/OIDX_POC_DSL-EJBwebapp/SchedulerService?WSDL

Select Web Service	•			×
* WSDL	http://		/OIDX_POC_DSL-EJB-webapp/SchedulerServic	Go
* Web Service Type	Other	۳		
			ок	Cancel

Figure 34 Dialog after clicking Select Web Service

7. Fill in the details as shown in the table below.



Insurance

Select Services	SchedulerServiceMgrEJBBeanService
Port Type	SchedulerServiceMgrEJBBeanPort
Operation	errorLogService

Enter the following Payload:

```
<ns1:ErrorLogService

xmlns:ns1="http://oracle.oidx.com/wsdl">

<PartyShortName>Daily</PartyShortName>

<PartyType>Error</PartyType>

<TranactionType>Log</TranactionType>

<Direction>report</Direction>

<SchedulerIntervalInMins>1440</SchedulerIntervalInMins>

</ns1:ErrorLogService>
```

8. Click Ok.

ORACLE Enterprise Manager Fasses Methodes Contral 12:	😢 thelogic Donien + 🛛 webhopic + 👘
TE STATE 0	ine al. IIII. 2.11.17 on PET 🕘
Retrockeling Service Henry - Job Definitions - County Job Dativities	
Create Job Definition	Of Canoel A
Againston Exclusion/sompaci/12	
3 Job Definition	
"Nume Date_Ever_Log	
* Drugslag Karnes Darky, Drive, Log.	
Package insuferingsiverialities appropriate	
Description: Daty Environ	
* All Tage : Denny/Matamookal Tage 💟 Maint Bid Service .	
Class Name and a scheduler philosophic Change/WS20	
a 🗟 Application Defined Properties	/ + x
Name	Type Initial Velue Road Only
Ne Application Collined Properties Build	
al 😰 System Properties	/ * x
Name	Type Initial Value Read Only
313_effectiveApplication	String Earlighumant
TVS_EXT_setWoREaueUI	Birrig MyLITE 177 (E. 💞
P1_EXT_streams	18wg /00x,700,0 🖌
IV5_EXT_seller/co/tane	Sting ScheduleDenk, 🗸
STS_SXT_suboffsame	ting Schubardarve 🖌

Figure 35: EM Console

- 9. Click Ok.
- 10. Created Job Definition can be scheduled as per desired requirements.

Updating OIDX.Properties file

Update the **OIDX.properties** file with active environment value.

- 1. Open OIDX.properties file from the config folder.
- 2. Update the oidx.active.environment='<Environment value>'



Chapter – 9

EMAIL CONFIGURATION FOR NOTIFICATIONS

This chapter includes following topics:

- Acquiring mail server SSL certificate
 - Importing the mail server SSL certificate into keystore
 - Synchronizing certificates from central store to local file instanceSynchronizing certificates from central store to local file instance
- Configuring Workflow Notification Properties
- Configuring Email Driver Properties
- Troubleshooting

Please see the SOA Suite User Guide for email configuration details. This chapter represents an example set up.

Email messages are sent via the Oracle User Messaging Service (UMS) in the WebLogic. The requirements to enable email notifications with User Messaging Service are:

- Acquire and import the mail server SSL certificate into keystore
- Configure Workflow Notification Properties
- Configure Email Driver Properties

If desired, an introduction to UMS is located here:

https://docs.oracle.com/middleware/1212/ums/UMSAG/introduction.htm#UMSAG97582

Acquiring mail server SSL certificate

Most mail servers will use SSL security and you must import a certificate from the mail server so that UMS can establish a trust relationship with the mail server. One way to acquire a certificate is with a tool like OpenSSL.

From a command window OpenSSL can be invoked to extract certificate information. The sample here is interacting with Oracle Beehive with the results being redirected to the file example.cert:

openssl s_client -connect example.oracle.com:465 > example.cert

Note that, OpenSSL can take a long time to finish. You can end it after a few seconds with CTRL+C because the needed certificate information is at the beginning.



Next, open the example.cert file with a text editor to copy the portion identified by the "BEGIN CERTIFICATE" and "END CERTIFICATE" records.

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📑 new 6	🛛 🔚 Transformation_Rules xsl 🛛 📑 Transformation_IDIXData_PremiumBordereaux.xsl 🛛 📑 new 7 🗙 📑 OIDX-1292.xml 🗙	VacationF
1	BEGIN CERTIFICATE	
2	MIIGFTCCBP2gAwIBAgIQK9Zu+s/ho/fEproIK6NaxzANBgkqhkiG9w0BAQsFADB+	
3	MQswCQYDVQQGEwJVUzEdMBsGA1UEChMUU3ltYW50ZWMgQ29ycG9yYXRpb24xHzAd	
4	BgNVBAsTF1N5bWFudGVjIFRydXN0IE51dHdvcmsxLzAtBgNVBAMTJ1N5bWFudGVj	
5	IENsYXNzIDMgU2VjdXJ1IFN1cnZ1ciBDQSAtIEc0MB4XDTE2MTIxNDAwMDAwMFoX	
6	DTE4MDIxMjIzNTk10VowgZgxCzAJBgNVBAYTAlVTMRMwEQYDVQQIDApDYWxpZm9y	
7	bmlhMRcwFQYDVQQHDA5SZWR3b29kIFNob3JlczEbMBkGA1UECgwST3JhY2x1IENv	
8	cnBvcmF0aW9uMR8wHQYDVQQLDBZQcm9kdWN0IERldmVsb3BtZW50IElUMR0wGwYD	
9	VQQDDBRzdGJlZWhpdmUub3JhY2xlLmNvbTCCASIwDQYJKoZIhvcNAQEBBQADggEP	
10	ADCCAQoCggEBANgVWBX00nMGlez7A8aqAiDh3CMOBc3pvjemP0qhWBYAyhCS4ln/	
11	ZkvV5RSaKRWu0fepBoEdlCiomHUfwyizTQJNvbhai0yBmB2ywVNnMnV01GCawg6r	
12	FF27NudqPMRWqPcVfSRXGEruA/nu3Gp2Q964ckMddKGEdu70JldYvcXHmTV++I8c	
13	iwQsa6zaKARS+/jwaGFHjHiu94a01JwX3LTZ5P7JuS6T5fYby30cL8mz4vVCXXV3	
14	zqLFXLe21IULdtzWeiGowdom1yAVYsoFjwTg3nYHT40HGPIRgi/7ThhLpI9KjmDr	
15	8f7o1MnSZUs9TkXomBmGtfG4o7mEQ7XUuRUCAwEAAaOCAnIwggJuMB8GA1UdEQQY	
16	MBaCFHN0YmVlaGl2ZS5vcmFjbGUuY29tMAkGA1UdEwQCMAAwDgYDVR0PAQH/BAQD	
17	AgWgMGEGA1UdIARaMFgwVgYGZ4EMAQICMEwwIwYIKwYBBQUHAgEWF2h0dHBzOi8v	
18	ZC5zeW1jYi5jb20vY3BzMCUGCCsGAQUFBwICMBkMF2h0dHBzOi8vZC5zeW1jYi5j	
19	b20vcnBhMCsGA1UdHwQkMCIwIKAeoByGGmh0dHA6Ly9zcy5zeW1jYi5jb20vc3Mu	
20	Y3JsMB0GA1UdJQQWMBQGCCsGAQUFBwMBBggrBgEFBQcDAjAfBgNVHSMEGDAWgBRf	
21	YM9hkFXfhEMUimAqsvV69EMY7zBXBggrBgEFBQcBAQRLMEkwHwYIKwYBBQUHMAGG	
22	E2h0dHA6Ly9zcy5zeW1jZC5jb20wJgYIKwYBBQUHMAKGGmh0dHA6Ly9zcy5zeW1j	
23	Yi5jb20vc3MuY3J0MIIBBQYKKwYBBAHWeQIEAgSB9gSB8wDxAHcA3esdK3oNT6Yg	
24	i4GtgWhwfi6OnQHVXIiNPRHEzbbsvswAAAFY/pkyKgAABAMASDBGAiEA1KZJqI5N	
25	GzjT5Pt1E38Fm7c9sny61avNuSAj/xm5EBwCIQDZdsPesg6hR4COJp4Hk2gECeyD	
26	97g56kN90SD2KsE7nQB2A05Lvbd1zmC64UJpH6vhnmajD35fsHLYgwDEe416qP3L	
27	AAABWP6ZMnEAAAQDAEcwRQIhAPRbRHtpeaZdQBK4sHWppBNAcI3bxEP4kSVN/4ld	
28	roiwAiBvcCbgbk112FLghj5yWoNFlPNRTgn9zLh9d6LC1DhkszANBgkqhkiG9w0B	
29	AQsFAAOCAQEAG8r0YvtbjDnRSvGDq/XFPgoLV1jwLUYMyl++dPYyTH1tvOpYXxVb	
30	mQh6UJ2/CZ9X+Bq2dP6wUIsHnuFRk8mtw1uT8UVKsrPMh9mtfA4pKMct8tUpGIkN	
31	pNuR5FlT5lo8Iu1besoPDkyLrEl3FIMk7XfJP0UoRC2RyT0fS2cHqjNBYgKEVdBY	
32	KLfci3cmZW/iTWU6E1UHN4HYYkLg5eG31SPbRYGbAgNpKQnb8//N19pPbGCZU2N5	
33	ZPFFc5zCXwLK0ZdtR/dK+OUidZDc5d+zdjupIE7PhuNgPlGnGQLmI8+CWXqGD+OX	
34	CahAbSFzR3Dg1b+6Eq+1u2DNiXZycwEXTA==	
35	END CERTIFICATE	
36		

Figure 36: example.cert file

Importing the mail server SSL certificate into keystore

To import the SSL certificate, open the Enterprise Manager Fusion Middle Control and navigate to the Security / Keystore menu item on the WebLogic Domain. Next select the system/trust store and click Manage.



ORACLE Enterprise Manager Fusion Middleware Control 12c									
E 🕵 WebLogic Domain 🗸									
/Domain_Vision_domain3/Vision_domain3 > Keys	store								
Keystore									
A keystore is a repository of security certificates, an	nd its scope applies to an application stripe. To work with a stripe or a keystore, select its row in the table and select a menu option. On this page you can create a strip								
View 👻 🕂 Create Stripe 🕂 Create Ke	eystore 🗙 Delete 👓 Manage 🥒 Change Password 🔛 Detach								
Name	Protection								
a 🚞 system	n/a								
🖀 trust	Policy								
🚔 demoidentity	Password								
astore @	Policy								
publiccacerts	Policy								
▶ 🧰 opss	n/a								
🕨 🧰 ums	n/a								
BPM_CRYPTO_STRIPE	n/a								

Figure 37: Enterprise Manager Fusion Middle Control

On the Manage Certificates pane, click Import and then provide an alias such as "example" and paste the certificate information that was copied earlier. Click Ok.

Mias Subject Name Cerr emoca CN=CertGenCA_DU=FOR TESTING ONLY_O=MyOrganization_L=1MyOrganization_L=1MyOrganization_L=1MyOrganization_L=1M Trus Iddemoca CN=CertGenCAB_OU=FOR TESTING ONLY_O=MyOrganization_L=1M Trus Iddemoca CN=CertGenCAB_OU=FOR TESTING ONLY_O=MyOrganization_L=1M Trus Import Certificate Trus Trus Certificate Paste Certificate Chain Certificate Paste Certificate Crain * Paste Certificate String here * Trus Trus * Paste Certificate String here * Trus Trus * MitGPTCDEP2paxHBafLNCPMATIXITMMedDAMEPGX * MitGPTCDEP2paxHBafLNCPMATIXITMENDMADX * Dirux Trus * Dirux * *	• + G	enerate Keypair 👌 Generate CSR	La Import Export Delete	Change Password 🔄 Detach	
emoca CN=CertGenCA.0U=FOR TESTING ONLY.O=MyOrganization_L=IN/Town,ST=MyState_C=US Trus Iddemoca CN=CertGenCAB,OL=FOR TESTING ONLY.O=MyOrganization_L=IN/Town,ST=Lis/State_C=US Trus Import Certificate Import Certificate Import Certificate Import Certificate Certificate Paste Certificate Critificate Import Certificate Import Certificate Certificate Paste Certificate String here Import Certificate Import Certificate <td< th=""><th>lias</th><th>Subject Name</th><th>× 1</th><th></th><th>Cert</th></td<>	lias	Subject Name	× 1		Cert
Iddemoca CN=CettGenCAB,OU=FOR TESTING ONLYO=MyOrganization,L=My or NT=Mx8tate nE=118 True True Certificate Type Trusted Certificate Certificate Type Trusted Certificate Chain Source Paste Certificate String here Cerificate String here Certificate	emoca	CN=CertGenCA,OU=FOR TESTING ONLY	O=MyOrganization,L=MyTown,ST=MyState,C=US	3	Trus
> Paste Certificate String here MIGGTCCBF2gAxIBag(XS2u+a/ho/fEproIK6Nax2A)BgkghkiG9w0BAQaFADB+ MIGGTCCBF2gAxIBag(XS2u+a/ho/fEproIK6Nax2A)BgkghkiG9w0BAQaFADB+ MgwxCQUTVQQCBxWVUE2dM8sGALUCCMUU31LYK60ZMgQ29yc69yXRpb24xHzAd BgVDAa-TIShbRHcd0YJ [FFyJA010E3]dHdvmaxLaEbdVVADF2AVTIXHDAwHDAwHFCX DTC44DUX4JI1XHIQVQQBAS52XRB352V1FNbc3J1czEbM8kGALUECMS4VTP2AVTIXHDAwHDAwHFCX DTC44DUX4JI1XHIQVQQBAS52XRB352V1FNbc3J1czEbM8kG1UECgyG333h72A1EBV cmSvcmF89VMR9wBgVQQDLB3CgwAB39V1FNbc3J1czEbM8kG1UECgyG333h72A1EBV cmSvcmF89VMR9wBgVqQzBAS2AB9V1FNbc3J1czEbM8kG1UECgyG33Ah72A1EBV cmSvcmF89VMR9wBgVqqzBa34b01S3HV32LIENVbc7CAS1LV0QVX62Ihv0AQgEB2QADggFP ADCCAQCq2gBAByVMR8vBgLa1bS3VD62EdLbm24LDS3VD62SHC5L1A/ ZkvVSRSaKRN0fegBoEdL1cm8Ufvy1z1QJNVbha10yBmB2yvVNhdnV01GGawg6r	Iddemoca	CN=CentGenCAB,OU=FOR TESTING ON	YO=MyOrganization_L=My Then ST=LAStatio Cell Import Certificate Certificate Type * Altas Certificate		Trus
			Juinee	* Paste Certificate String here BEGIN CERTIFICATE MIGGTCCBP2gAx:BAgIQK92u+s/ho/fEproIKGNaxzANBgkqhkiG9w0BAQsFADB+ MQswCQITVQQGEwVVUzzdWBeGAIUEChWU31cTW3CRM9Q29v059YXRpb24kiBAG BgWVBaFISHW2CITBSWPUG0YJFFWQXR01E3HIMevmaxLak26WVBM7JINBWFuG0Y) IEH4TXWzIDMgU2VydXJ1FH1cn2LeiB0QSALEc0M84KDTE2HTKWBAMHOAMHOX DT44MD1xH31cTW1CVQQZGxCAb3GWVATIAVTMBMevCVTVQQDIAPCWM2AP3 bmlhMRcwFQIDVQQBBASIZWB3b28k1FW0b3J1czBbMBKGAUECyVTQ0IDAPCW73JNTzXIIEN cn5wcmF0W9URB4WgTWQUDQLB2CgmSkMW01EL4M04bBZFXN012HLm1b8CkW5VTD VQQDBBkadS11ENHpdmUu3JhT2L1LmWVTCALDW02INv02INv02INcK3QEBQADgEF ADCCQACQCgBABKYWBNOMGHSier7ABagAlDAS1M02INC2INv01KQES4DFC3L1 ZkVVSR3aKRWuJfepBotdL1CiomBUfvy1zTQJNvbha10yBm2yvVNhhmV01ECawg6r	ч т

Figure 38: Managing Certificates screen

For many mail servers importing the one certificate will complete the task, but for example, Oracle Beehive utilizes a certificate chain, so it is also necessary to acquire and import certificates for Symantec[®] and Verisign[®].

		Juranee		
() Information				
Trusted Certif	cate imported successfully.			
Domain_Vision_do	main3/Vision_domain3 > Keystore > Manage Certificates			
/lanage Cerf	ificates: system/trust			
ertificate. To impor	the CA signed certificate or trusted cert, click Import. You can only import the CA-signed certificate into the same keystore from which the CSR was generated.			
view v + C	the CA signed certificate or trusted cert, click import. You can only import the CA-signed certificate into the same keystore from which the CSR was generated.	Certificate Type	Serial Number	Certi
View View C	the CA signed certificate or trusted cert, click import. You can only import the CA-signed certificate into the same keystore from which the CSR was generated. ienerate Keypair	Certificate Type Trusted Certificate	Serial Number 0x643a806640	Cert ca 61
View v + C Alias democa olddemoca	the CA signed certificate or trusted cert, click import. You can only import the CA-signed certificate into the same keystore from which the CSR was generated. ienerate Keypair	Certificate Type Trusted Certificate Trusted Certificate	Serial Number 0x643a806640 0xf5c82bdfed03	Cert ca 6* 18 5d
View View C Alias democa olddemoca example	the CA signed certificate or trusted cert, click import. You can only import the CA-signed certificate into the same keystore from which the CSR was generated. enerate Keypair Generate CSR Export Export Ch-CenfeenCAB,OU=FOR TESTING ONLY.O=MyOrganization.L=MyTown.ST=MyState.C=US Ch=CenfeenCAB,OU=FOR TESTING ONLY.O=MyOrganization.L=MyTown.ST=MyState.C=US	Certificate Type Trusted Certificate Trusted Certificate Trusted Certificate	Serial Number 0x643a806640 0xf5c82bdfed03 0xc4a6ba082ba	Cert ca 6 ⁻¹ f8 5d af 11
View v + c Alias democa olddemoca example symantec	the CA signed certificate or trusted cert, click import. You can only import the CA-signed certificate into the same keystore from which the CSR was generated. ienerate Keypair	Certificate Type Trusted Certificate Trusted Certificate Trusted Certificate Trusted Certificate	Serial Number 0x643a806640 0xf5c82bdfed03 0xc4a6ba082ba 0x40418d3093	Cert ca 6* 18 5d af 11 ff 67

Figure 39: Import certificates

Synchronizing certificates from central store to local file instance

Oracle User Messaging Service depends on certificates that are available from the local file instance of the keystore, so you must synchronize the certificates with the syncKeyStores command on the System MBean as previously described in "Synchronizing KSS keystores". This step requires restarting the WebLogic servers.

Configuring Workflow Notification Properties

To enable email notifications to be sent from the SOA workflow, open the Enterprise Manager Fusion Middle Control and navigate to the SOA Administration / Workflow Properties menu item on the **soa_server**.

ραςι ε

0. . r 0 0 0 0



= 1	soa-infra 0 SOA Infrastructure 👻			
Dasht	Home	•	w Instan	nces Error Hospital
	Monitoring	×		
Key	Logs	×	P	Business Transaction Faults
	SOA Deployment Manage Partitions Work Manager Groups	•	on 🗿	Last 24 A V Hours V 🗃
Defi	Resequencing Groups Service Engines Services and References	•	•	Composites and Adapters Availability
	Business Events			Y soa_serveri
SO	Error Notification Rules Define Schedules			Composite: Start-Up Errors 1
û	SOA Administration	Þ	Cor	mmon Properties
	Security Administration	Þ Þ	BPE	EL Properties ne 13 diator Properties
	Target Sitemap		Wo	rkflow Prograties ed Services
Sys	Target Information		Cro	oss References
Last	24 ^ v Hours v	Ð	Tok Auto	ven Configurations to Purge
Refresh region to show the latest data.			Res	siliency Configuration Ces

Figure 40: Workflow Properties

Change the Notification Mode to Email. Provide From, Actionable, and Reply To email addresses.

All email notifications sent from the SOA workflow will utilize the From email address, so the use of a no-reply email address is recommended (e.g. <u>no-reply@example.com</u>).

Click Apply to apply the changes.

ORACLE Enterprise Manager Fusion Middleware Control 12c	WebLogic Domain 💌 Weblogic 💌 🚥
t soa-infra ●	Dec 12, 2017 2:38:28 PM PST 👈
Confirmation Changes have been applied.	X
Mailer Task	
Information All changes made in this page require a server restart to take effect. Workflow Notification Properties	P Related Links V Apply Revert
Before configuring the Workflow Notification, configure the Messaging Service Driver. Go to the Messaging Driver page	
* Notification Mode Email v Notification Service	
* Email : From Address	
* Email : Actionable Address	
* Email : Reply To Address	
More Workflow Notification Configuration Properties	

Figure 41: Workflow Notification Properties



Configuring Email Driver Properties

To provide mail server account information:

1. Open the Enterprise Manager Fusion Middle Control and navigate to the User Messaging Service / usermessagingdriver-email (soa_server1) menu item.

	ddieware Control 12c
Target Navigation	
View w	
Application Deployments	or Hospital
🔺 🚞 SOA	ss Transaction Faults
service-bus (AdminServer)	
soa-infra (soa_server1)	24 A V Hours V III
🔺 🛅 WebLogic Domain	
⊿ ﷺ soa_domain1	region to show the latest data. Click graph to drill down.
AdminServer	
ami_server	sites and Adapters Availability
ess_server1	
E mt_server1	a_server1 v
e osb_server1	
E soa_server1	Composite: Start-Up Errors 1
Coherence Clusters	IS Connectivity Errors
Metadata Repositories	omosiles an IIP
Scheduling Services	
Usermessagingdriver-apps (osb_server1)	Adapter Downtime 13
usermessagingdriver-email (osb_server1)	ncy - Suspended Services
🗳 usermessagingdriver-email (spa_server1)	
usermessagingdriver-extension (osb_server1)	desiliency History: Last 24 A Y Hours Y
usermessagingdriver-gcm (osb_server1)	
usermessagingdriver-smpp (osb_server1)	
usermessagingdriver-twitter (osb_server1)	uspended Services
Server1)	
usermessagingserver (osb_server1)	
usermessagingserver (soa_server1)	

Figure 42: User Messaging Service / usermessagingdriver-email (soa_server1) menu item

2. Choose the Email Driver Properties menu item.

	usermessaging Email Dr	r-em river n	il 0	
St	Home			
	Control	Þ	7	
	Logs	►	Messages Sent Successfully	0
	Performance Summary		Messages Sent Failed	0
	Email Driver Properties		Messages Received Successfully	0
	System MBean Browser	45	Messages Received Failed	0
	Target Sitemap			
Re	Target Information			
lefore Y	'ou Begin			

Figure 43: Email Driver Properties menu item



3. Create an email configuration.

ORACLE Enterprise Manager Fusion Middleware Control 12c									
te 🕇 userr	nessagingdriver - Iessaging Email Driv	email 💿 er 👻							
Email Driver The UMS driver sup	Properties	irations, at server or	cluster level. Create or edit a configuration to configure the driver properties.						
View 🔻 🕇 C	Create / Edit	X Delete							
Name	Create	Driver Type	Configuration Level						

Figure 44: Creating Email configuration

4. Now provide a configuration name, sender address and set the delivery type to SEND.

te tusermessag Diser Messagin	ingdriver-email ③ g Email Driver ↓									
reate Driver Properties										
Common Configuration										
* Name					Supported Protocols	SMTP				
Driver Type	Oser Messaging Email Driver				Supported Carriers					
	Server				Supported Application Names					
Configuration Level	soa_server1				Sender Address	Use Sender Addresses Use Default Sender Address				
Supported Delivery Types	EMAIL									
* Capabi <mark>i</mark> ty	SEND 🗸				Cost	~				
Supported Content Types	*				Speed	~				
Supported Status Types	DELIVERY_TO_GATEWAY_SUCC DELIVERY_TO_GATEWAY_FAILU USER_REPLY_ACKNOWLEDGE USER_REPLY_ACKNOWLEDGE	CESS, IRE, MENT_SUCCESS, MENT_FAILURE		лł						
Driver-Specific Cor	nfiguration									
Name	Description	Mandatory	Encoded Credential	Value						

Figure 45: Create Driver Properties screen

5. Since the deliver type is SEND, you only need to provide the outgoing email information. Scroll down and set the outgoing email Server, Port, Security, Default from address, Username and Password.



The email address given here must match the From address provided earlier in the Workflow Notification Properties.

Outgoing Mail Server	The name of the SMTP server. Mandatory only if e-mail sending is required.				
Outgoing Mail Server P	Outgoing Mail Server Port		25		
Outgoing Mail Server S	The security used by SMTP server. Possible values are None, TLS and SSL. Default value is None.	ĺ	None ~		
Default From Address	Deprecated. Use Default Sender Address instead. The default FROM address (if one is not provided in the outgoing message).	[
Outgoing Username	The username used for SMTP authentication. Required only if SMTP authentication is supported by the SMTP server.	[
Outgoing Password	The password used for SMTP authentication. Required only if SMTP authentication is supported by the SMTP server.	~		Type of Password Indirect Username/Key Password	Indirect Password, Create New User

Figure 46: Create Driver Properties screen

6. Scroll back to the top and click Test to confirm the configuration. If the test does not show "The driver configuration is valid", there is an issue with the server or credentials provided, or a missing SSL security certificate.

If the server and credentials are valid but the test still fails, see <u>Troubleshooting</u> below.

	nterprise Manager Fusi	on Middleware Control 12c			🖺 WebLogic Domain 🔻 🛛 Weblogic 👻 🚥	
te 1 usermessag	ingdriver-email () ng Email Driver ♥				Dec 13, 2017 4:14:57 PM PST 🕥	
Information The driver configuration is valid.				G	×	
Create Driver Prop	perties				Test OK Cancel	
🖌 Common Configura	ation					
* Name			Supported Protocols	SMTP		
Driver Type	User Messaging Email Dri	ver	Supported Carriers			
	 Server 		Supported Application Names			
Configuration Level	soa_server1			Use Sender Addresses		
-	O Cluster		Sender åddress	EMAIL		
			00100171001000	O Use Default Sender Address		
Supported Delivery Types	EMAIL					
* Capability	SEND ~		Cost	~		
Supported Content Types	*/	w.	Speed	~		
Supported Status Types	DELIVERY_TO_GATEWAY DELIVERY_TO_GATEWAY USER_REPLY_ACKNOWL	SUCCESS, FAILURE, EDGEMENT_SUCCESS, EDGEMENT_EAR LIDE				

Figure 47: Create Driver Properties screen

Troubleshooting

If the test gives a Fail to connect error or a review of the SOA server log shows a failed SSL handshake, it could be an issue with the security certificate.

S Error	3	×
Failed to conne	t to outgoing email server stbeehive.orac	le.com:465, transport security=SSL

Figure 48: Error dialog



Verifying Trust Keystore

Open the WebLogic Server Administration Console to verify that the trust keystore used by the SOA server is the same system/trust were the security certificates were imported.

🗲 🛈 💋 700	Console/Or Sole.portal?_nfpb=true&_pageLabel=ServerConfigTabkeystoreTabPage&handle=com.bea.console.handles.JMXHandle("com.bea%3AName%3D	soa_: 🖾 😋 🔍 Search								
	ministration Console 12c									
Change Center	🙆 Home Log Out Preferences 🖾 Record Help									
View changes and restarts	Home >Summary of Servers >soa_server1									
Click the Lock & Edit button to modify, add or delete items in this domain.	Settings for tona, server1 Configuration Protocols Logging Debug Monitoring Control Deployments Services Security Notes									
Release Configuration	General Ouster Services Reystores SSL Pederation Services Deployment Migration Tuning Overload Concurrency Health Monitoring Server Start Web S	ervices Coherence								
Domain Structure	Click the Lock & Editbutton in the Change Center to modify the settings on this page.									
Vision domain3	Save									
Domain Partitions Environment Servers Ousters	Reystores ensure the secure storage and management of private keys and trusted certifies (CAs). This page lets you view and define various keystore configurations. These settings help you to manage the security of message tra									
Coherence Clusters Resource Groups	Keystores: Demo Identity and Demo Trust, change	Which configuration rules should be used fi								
Resource Group Templates	- Identity-									
Virtual Hosts	Demo Identity Keystore: kss://system/demoidentity	The location of the demo identity keystore.								
Work Managers Concurrent Templates	Demo Identity Keystore Type: kss	The type of the demo identity keystore. Ge								
How do L.	Demo Identity Keystore Passphrase:	The demo identity keystore's encrypted pa								
Configure identity and trust	- Trust									
Set up SSL	Demo Trust Keystore:	The location of the demo trust keystore.								
	Demo Trust Keystore Type: kss	The type of the demo trust keystore. Gene								
System Status	Demo Trust Keystore Passphrase:	The demo trust keystore's encrypted pass								
Faled (0) Critical (0)	Java Standard Trust Keystore: /usr/java/jdk1.8.0_101/pre/lb/security/cacerts	The location of the java standard trust key								
Overloaded (0) Warning (0)	Java Standard Trust Keystore Type: jis	The type of the java standard trust keysto								
OK (5)	Java Standard Trust Keystore Passphrase:	The password for the Java Standard Trust								
	Confirm Java Standard Trust Keystore Passphrase:									
	Save									
	Click the Lock & Editbutton in the Change Center to modify the settings on this page.									

Figure 49: WebLogic Server Administration Console

Reviewing the WebLogic start script

Review the WebLogic start script to verify that no extraneous keystore is being provided at startup. If there is, remove it and restart the WebLogic servers.

Edit the **setDomainEnv.sh** and remove the "**javax.net.ssl.trustStore**" property on the server start command (... /bin/java -server ...) if there is one and restart the WebLogic servers.



Chapter – 10

OIDG GNUPG ENCRYPTION AND DECRYPTION

OIDG supports GPG encrypted batch request processing .To support this you need to configure the GnuPG keys in your Linux machine. Following section describes the gpg-key creation.

Verifying GnuPG-Agent

- 1. Login to Putty.
- 2. Run the GnuPG agent from application Linux user using below command.

gpg-agent

```
-bash-4.1$ gpg-agent
gpg-agent: gpg-agent running and available
-bash-4.1$
```

Output: gpg-agent: gpg-agent running and available

- 3. If the output is 'No gpg-agent running in this session', follow the steps to run the gpg agent.
 - Enter the following command to run the gpg-agent

```
eval 'gpg-agent --daemon'
-bash-4.1$ eval 'gpg-agent --daemon'
GPG_AGENT_INFO=/tmp/gpg-ExCSEX/S.gpg-agent:57227:1; export GPG_AGENT_INFO;
```

 It shows the location of the GPG Agent file Now copy that file by following command



• Verify the status of GPG- agent

```
gpg-agent
```



Generating GnuPG Key

1. Login to putty with root user.



2. Give the permission to the gpg-agent by using the following command.

chmod o+rw \$(tty)

- 3. Switch to the WebLogic installed user.
- 4. Enter the following command to create GPG Key.

```
gpg --gen-key
-bash-4.1$ gpg --gen-key
gpg (GnuPG) 2.0.14; Copyright (C) 2009 Free Software Foundation, Inc.
This is free software: you are free to change and redistribute it.
There is NO WARRANTY, to the extent permitted by law.
Please select what kind of key you want:
   (1) RSA and RSA (default)
   (2) DSA and Elgamal
   (3) DSA (sign only)
   (4) RSA (sign only)
Your selection?
```

5. Enter 1 as your section option (RSA and RSA).

```
Please select what kind of key you want:
  (1) RSA and RSA (default)
  (2) DSA and Elgamal
  (3) DSA (sign only)
  (4) RSA (sign only)
Your selection? 1
```

6. Enter the Key size as 2048 and enter 0 for never expire.



 Enter y, Real name, Email Address and Comment. Is this correct? (y/N) y
 GnuPG needs to construct a user ID to identif



8. Enter 0.



9. Enter the GPG Password.



10. Reenter GPG Password.



11. Now, you can check the key and secret keys using the following command:

12. Enter the below command to check List keys.

gpg --list-keys



Exporting and Importing secret sub keys

Exporting a secret key

gpg --export-secret-keys -a '<secret key id>' > Full
path/gpgchefsecret.asc
Note: <secret key id> should be highlighted value of step 11 screenshot.

Exporting a public key

gpg --armor --export '<Email id>'> Full path /gpgchefpublic.asc Note: <Email id> should be same as the one entered in the step 7.



Backing up the secret and public key and deleting secrete key

gpg --export-secret-subkeys '<sub id>' > Full path
/gpgchefsecretsubkey.asc
Note: <sub id > should be highlighted value of step 12 screenshot.

gpgdelete-secret-key ` <secret id="" key="">'</secret>
<pre>[idxAdmin@slc11cgp ~]\$ gpgdelete-secret-key 7A01F5B6 gpg (GnuPG) 2.0.14; Copyright (C) 2009 Free Software Foundation, Inc. This is free software: you are free to change and redistribute it. There is NO WARRANTY, to the extent permitted by law.</pre>
<pre>sec 2048R/7A01F5B6 2018-01-11 oidg1 (key created) <oidg1@oracle.com></oidg1@oracle.com></pre>
Delete this key from the keyring? (y/N) y This is a secret key! - really delete? (y/N) y
<pre>gpgimport Full path /gpgchefsecretsubkey.asc</pre>

```
-bash-4.1$ gpg --import /scratch/idxAdmin/gpgchefsecretsubkey.asc
gpg: key 8DDDIAAE: secret key imported
gpg: key 8DDDIAAE: "oidx1 (oidx1 key created) <oidx1@oracle.com>" not changed
gpg: Total number processed: 1
gpg: unchanged: 1
gpg: secret keys read: 1
gpg: secret keys imported: 1
-bash-4.1$
```

Trusting the keys

Trust the secret key by using the below command:

```
gpg --edit-key <secret key id>
Command> trust
Your decision? 5
Do you really want to set this key to ultimate trust? (y/n) y
Command> save
```

bash-4.1\$ gpg --edit-key 7A01F5B6 pg (GnuPG) 2.0.14; copyright (c) 2009 Free Software Foundation, Inc. his is free software: you are free to change and redistribute it. here is NO WARRANTY, to the extent permitted by law. ecret key is available. ub 2048R/8DDD1AAE created: 2017-09-26 expires: never usage: SC trust: ultimate validity: ultimate ub 2048R/9D341E5B created: 2017-09-26 expires: never usage: E ultimate] (1). oid91 (oid91 key created) <oid91@oracle.com> ommand> trust ub 2048R/8DDD1AAE created: 2017-09-26 expires: never usage: SC trust: ultimate validity: ultimate ub 2048R/9D341E5B created: 2017-09-26 expires: never usage: E ultimate) (1). oid91 (oid91 key created) <oid91@oracle.com> lease decide how far you trust this user to correctly verify other users' keys by looking at passports, checking fingerprints from different sources, etc.) 1 = I don't know or won't say 2 = I do NOT trust 3 = I trust marginally 4 = I trust fully 5 = I trust ultimately m = back to the main menu our decision 5 o you really want to set this key to ultimate trust? (y/N) y ub 2048R/8DDD1AAE created: 2017-09-26 expires: never usage: SC trust: ultimate validity: ultimate ub 2048R/9D341E5B created: 2017-09-26 expires: never usage: E ultimate] (1). oid91 (oid91 key created) <oid91@oracle.com>

Steps to find oidx.gpg.backup.key.id:

Enter gpg -list-keys command as shown below.



In the above screen, oidg1 is the backup key id.

Testing the gpg:

Encrypt File:

```
gpg -e -r " <GPG KeyID> " <InputFilePath>/<InputFileName>
Example: gpg -e -r "oidg1" /scratch/oraBase/FileMove/POLMIG_1.xml
```

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Decrypt File:

gpg --output <OutputFilePath>/<OutputFileName>--batch -passphrase <Password> --decrypt<InputFilePath>/<InputFileName>

Example: gpg --output /scratch/oraBase/FileMove/POLMIG_TEST.xml --batch -passphrase Welcome123 --decrypt "/scratch/oraBase/FileMove/POLMIG_1.xml.gpg"