

# **Oracle® Pedigree and Serialization Manager**

Installation Guide

Release 2.0, 2.1, and 2.2

**Part No. E88350-03**

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Oracle Pedigree and Serialization Manager Installation Guide, Release 2.0, 2.1, and 2.2

Part No. E88350-03

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## **Oracle Pedigree and Serialization Manager Installation Guide, Release 2.0, 2.1, and 2.2**

**Part No. E88350-03**

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# Preface

## Intended Audience

Welcome to Release 2.0, 2.1, and 2.2 of the *Oracle Pedigree and Serialization Manager Installation Guide*.

See Related Information Sources on page x for more Oracle Applications product information.

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## Structure

- 1 About Oracle Pedigree and Serialization Manager**
- 2 Pre-Installation Considerations**
- 3 Installing Oracle Pedigree and Serialization Manager 2.0.0.0**
- 4 Upgrading Oracle Pedigree and Serialization Manager from 1.2.0.18.0 to 2.1.0.0.0**

This chapter lists the steps for upgrading Oracle Pedigree and Serialization Manager (OPSM) from 1.2.0.18.0 to 2.1.0.0.0.
- 5 Upgrading Oracle Pedigree and Serialization Manager from 1.2.0.19.0 to 2.1.0.1.0**

This chapter lists the steps for upgrading Oracle Pedigree and Serialization Manager (OPSM) from 1.2.0.19.0 to 2.1.0.1.0.

If you are upgrading from 1.2.0.19.0, you must also apply the 2.1.0.1.0 patch after upgrading to 2.1.0.0.0. You cannot stay on 2.1.0.0.0. Failure to do so will result in loss of functionality.

#### **6 Upgrading Oracle Pedigree and Serialization Manager from 2.0.0.3.0 to 2.1.0.0.0**

This chapter lists the steps for upgrading Oracle Pedigree and Serialization Manager (OPSM) from 2.0.0.3.0 to 2.1.0.0.0.

#### **7 Upgrading Oracle Pedigree and Serialization Manager from 2.1.0.1.0 to 2.2.0.0.0**

This chapter lists the steps for upgrading Oracle Pedigree and Serialization Manager (OPSM) from 2.1.0.1.0 to 2.2.0.0.0.

#### **8 Application Tuning and Troubleshooting Oracle Pedigree and Serialization Manager 2.0, 2.1, and 2.2**

##### **A Setting Up WebLogic Components for Serial Destinations Oracle Pedigree and Serialization Manager 2.0, 2.1, and 2.2**

This appendix provides the procedures to set up WebLogic components for serial destinations. Some components are only needed if you are using serial destinations functionality. Not all components will be needed. The set up of each component is based on the functionality being used. There is no problem if you set them all up, even if none of them are going to be used.

## **Related Information Sources**

- *Oracle Pedigree and Serialization Manager Process Guide*
- *Oracle Pedigree and Serialization Manager Security Guide*
- Process Integration Pack documentation:
  - *Oracle Serialization and Tracking Integration Pack for Oracle Pedigree and Serialization Manager and Oracle E-Business Suite 3.1 - Implementation Guide* for Oracle Pedigree and Serialization Manager Release 2.0.
  - *Oracle Serialization and Tracking Process Integration Pack for Oracle Pedigree and Serialization Manager and Oracle E-Business Suite Guide* for Oracle Pedigree and Serialization Manager Release 2.1 and Release 2.2

## **Do Not Use Database Tools to Modify Oracle E-Business Suite Data**

Oracle STRONGLY RECOMMENDS that you never use SQL\*Plus, Oracle Data Browser, database triggers, or any other tool to modify Oracle E-Business Suite data unless otherwise instructed.

Oracle provides powerful tools you can use to create, store, change, retrieve, and maintain information in an Oracle database. But if you use Oracle tools such as

SQL\*Plus to modify Oracle E-Business Suite data, you risk destroying the integrity of your data and you lose the ability to audit changes to your data.

Because Oracle E-Business Suite tables are interrelated, any change you make using an Oracle E-Business Suite form can update many tables at once. But when you modify Oracle E-Business Suite data using anything other than Oracle E-Business Suite, you may change a row in one table without making corresponding changes in related tables. If your tables get out of synchronization with each other, you risk retrieving erroneous information and you risk unpredictable results throughout Oracle E-Business Suite.

When you use Oracle E-Business Suite to modify your data, Oracle Applications automatically checks that your changes are valid. Oracle Applications also keeps track of who changes information. If you enter information into database tables using database tools, you may store invalid information. You also lose the ability to track who has changed your information because SQL\*Plus and other database tools do not keep a record of changes.



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# About Oracle Pedigree and Serialization Manager

This chapter covers the following topics:

- Oracle Pedigree and Serialization Manager Explained
- Software Distribution and Language Support
- About This Guide
- Conventions

## Oracle Pedigree and Serialization Manager Explained

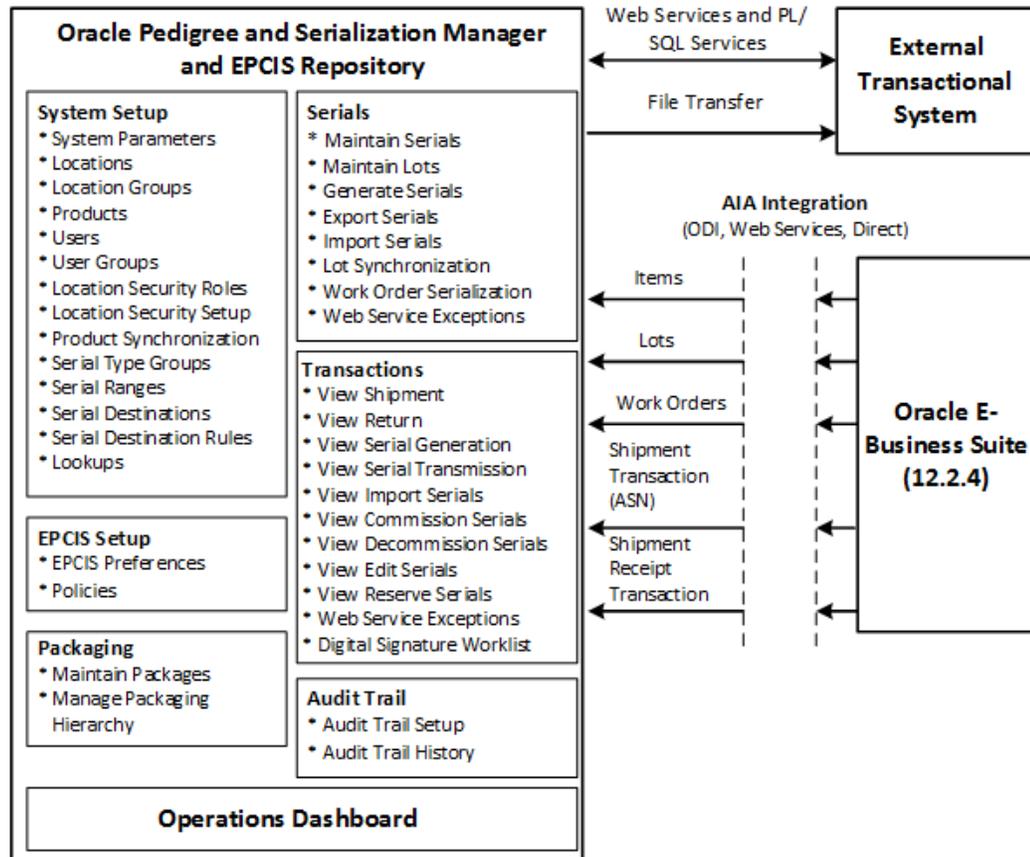
Oracle Pedigree and Serialization Manager (OPSM) is an application that enables companies to manage serialization of products and share serialized product data across the supply chain. OPSM can integrate with your existing manufacturing, shipping, and receiving transactional systems, Oracle E-Business Suite (EBS), or it can operate as a standalone application. OPSM can support multiple transactional or EBS systems integrated to a single instance of OPSM. The multiple transactional or EBS systems may be multiple instances managed within your company or systems managed by your manufacturing and logistics partners.

For more information on OPSM, see the *Oracle Pedigree and Serialization Manager Process Guide*.

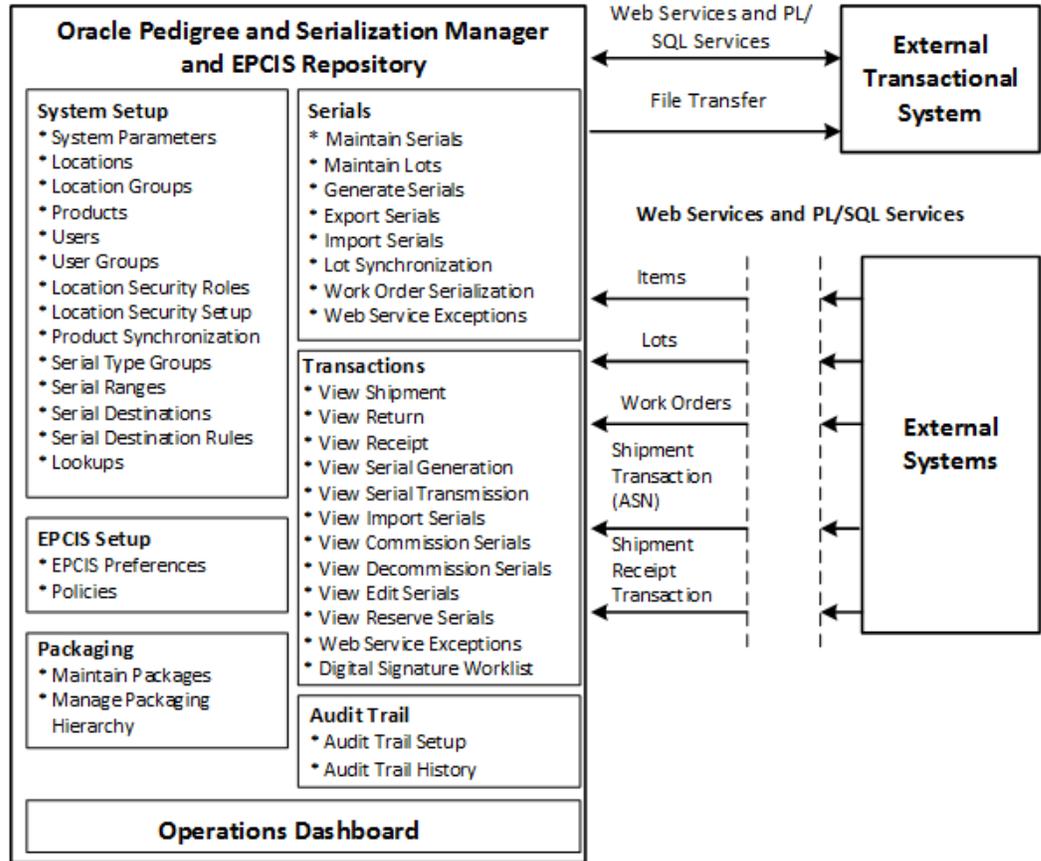
For more information on the integration between OPSM and EBS, see *Oracle Serialization and Process Tracking Integration Pack for Oracle Pedigree and Serialization Manager and Oracle E-Business Suite Guide* for OPSM Release 2.0.

These diagrams illustrates a high-level overview of OPSM for Release 2.0, 2.1, and 2.2:

**OPSM High-Level Overview (Release 2.0)**



**OPSM High-Level Overview (Release 2.1 and 2.2)**



## Software Distribution and Language Support

Download Oracle Pedigree and Serialization Manager (OPSM) through E-delivery. Oracle can also supply the product on DVD to accommodate specific customer requests.

The user interface is in American English. American English is supported.

## About This Guide

This installation guide provides information required to install the OPSM application on Oracle supported platforms.

The information contained in this guide is subject to change as the product technology evolves and as hardware, operating systems, and third-party software are created and modified. This guide is intended for information technology personnel and privileged users responsible for installing and configuring OPSM.

## Conventions

These conventions are used throughout this guide:

- The notation <Install\_Dir> / is used to refer to the location on your system where the software is installed.
- Forward slashes (/) are used to separate the directory levels in a path name. A forward slash will always appear after the end of a directory name.

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# Pre-Installation Considerations

This chapter covers the following topics:

- Hardware and Software Requirements Oracle Pedigree and Serialization Manager
- Requirements Oracle Pedigree and Serialization Manager 2.1
- Requirements Oracle Pedigree and Serialization Manager 2.2

## Hardware and Software Requirements Oracle Pedigree and Serialization Manager

### Hardware Requirements

These requirements apply to most installations, assuming 1000-2500 named users and 50-75 concurrent users. The server specifications are typical, but additional analysis might be required to determine your final configuration.

- Hardware Specifications:
  - 2GHz+ processor
  - Dual CPU+
  - 32GB+ RAM
- Application Server: 2 Managed Server JVMs with 2 GB RAM (an additional 500 MB is needed if using optional reporting Managed Server). For cluster configuration, 2 GB RAM for each additional server is required.
- Application Disk Space: 50 GB RAID.
- Database Server: 2 GB SGA (with optional reporting, an additional 1 GB is required).

- Support for Unicode AL32UTF8 character set.
- Create as Container database option is not supported if database is Oracle Database 12c Release 1.
- Database Table Space: 200 GB (with optional reporting, an additional 25 GB is required).

## Software Requirements

The following software must be installed before you can install OPSM:

### Server Environment:

- Oracle Database Server 11gR2 (11.2.0.3.0) 64-bit Production Database, Enterprise Edition or Oracle Database 12c Release 1 (12.1.0.1.0) 64-bit Production Database, Enterprise Edition
- Oracle WebLogic Server 11gR1PS6 (10.3.6.0) 64-bit
- Oracle Service Oriented Architecture (SOA) Suite 11gR1PS6 (11.1.1.7.0) 64-bit, including Enterprise Manager and the Repository Creation Utility (RCU) 11gR1PS6. The following RCU components are required:
  - Metadata Services (MDS schema)
  - SOA Infrastructure (SOAINFRA schema)
  - Business Activity Monitoring (ORABAM schema)
  - User Messaging Service (ORASDPM schema)
- Oracle JDK 1.6
- Oracle BI Publisher 11gR1 (11.1.1.7) 64-bit (not required unless you wish to print Pedigrees)

If you decide to use a 12c Oracle Database then you need to upgrade to Oracle BI Publisher 11g to print pedigrees in Oracle Pedigree and Serialization Manager. You only need to install the Oracle BI Publisher 11g component and not all of the Oracle Business Intelligence Enterprise Edition (OBIEE).

If you are using an 11g Oracle Database, and are upgrading, you can still use the Oracle BI Publisher 10g but we recommend that you upgrade to Oracle BI Publisher 11g.

If you are using an 11g Oracle Database, and are performing a new install, we recommend that you use Oracle BI Publisher 11g.

For more information on the installation details, see each software's documentation.

**End User Environment:**

- Internet Explorer 7.0 or higher or Firefox 36.0+
- Adobe Flash plug-in installed
- JavaScript enabled
- Pop-up Blocker disabled for server hosts

## **Requirements Oracle Pedigree and Serialization Manager 2.1**

### **New Users**

To install OPSM 2.1.0.0.0, complete these steps:

1. Install OPSM 2.0.0.0.0.

For information on how to install OPSM 2.0.0.0.0, see *Installing Oracle Pedigree and Serialization Manager 2.0*, page 3-1.

2. Apply patches to reach release 2.0.0.3.0 and then upgrade to OPSM 2.1.0.0.0.

For information on this process, see *Upgrading Oracle Pedigree and Serialization Manager from 2.0.0.3.0 to 2.1.0.0.0*, page 6-1.

### **Existing Users**

To install OPSM 2.1.0.0.0, your current release must be 1.2.0.18.0, 1.2.0.19.0, or 2.0.0.3.0. No other upgrade paths are supported.

For users on Release 1.2, see:

- *Upgrading Oracle Pedigree and Serialization Manager from 1.2.0.18.0 to 2.1.0.0.0*, page 4-1
- *Upgrading Oracle Pedigree and Serialization Manager from 1.2.0.19.0 to 2.1.0.0.0*, page 5-1

For users on Release 2.0, see *Upgrading Oracle Pedigree and Serialization Manager from 2.0.0.3.0 to 2.1.0.0.0*, page 6-1.

# Requirements Oracle Pedigree and Serialization Manager 2.2

## New Users

To install OPSM 2.2.0.0.0, complete these steps:

1. Install OPSM 2.0.0.0.0.  
For information on how to install OPSM 2.0.0.0.0, see *Installing Oracle Pedigree and Serialization Manager 2.0*, page 3-1.
2. Apply patches to reach release 2.0.0.3.0 and then upgrade to OPSM 2.1.0.0.0.  
For information on this process, see *Upgrading Oracle Pedigree and Serialization Manager from 2.0.0.3.0 to 2.1.0.0.0*, page 6-1.
3. Apply patches to reach release 2.1.0.1.0 and then upgrade to OPSM 2.2.0.0.0.  
For information on this process, see *Upgrading Oracle Pedigree and Serialization Manager from 2.1.0.1.0 to 2.2.0.0.0*, page 7-1.

## Existing Users

To install OPSM 2.2.0.0.0, your current release must be 2.1.0.1.0. No other upgrade paths are supported.

1. Upgrade to OPSM 2.1.0.0.0:
  - For users on Release 1.2, see:
    - *Upgrading Oracle Pedigree and Serialization Manager from 1.2.0.18.0 to 2.1.0.0.0*, page 4-1
    - *Upgrading Oracle Pedigree and Serialization Manager from 1.2.0.19.0 to 2.1.0.0.0*, page 5-1
  - For users on Release 2.0, see:
    - *Upgrading Oracle Pedigree and Serialization Manager from 2.0.0.3.0 to 2.1.0.0.0*, page 6-1
2. Apply patches to reach 2.1.0.1.0 and then upgrade to OPSM 2.2.0.0.0.  
For information on this process, see *Upgrading Oracle Pedigree and Serialization Manager from 2.1.0.1.0 to 2.2.0.0.0*, page 7-1.

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# Installing Oracle Pedigree and Serialization Manager 2.0.0.0.0

This chapter covers the following topics:

- Pre-Installation Tasks
- Installation Tasks
- Post Installation Tasks
- Reinstallation Tasks

## Pre-Installation Tasks

Perform the following steps before you begin your install, you must:

1. Install the Oracle 11gR2 (11.2.0.3.0) 64-bit Production Database, Enterprise Edition or Oracle Database 12c Release 1 (12.1.0.1.0) 64-bit Production Database, Enterprise Edition.

**Important:** When installing Oracle Database 12c Release 1, choose Advanced Install, then in the following screens, deselect the *Create as Container database* option and select the AL32UTF8 character set.

2. Install WebLogic 11gR1PS6 (10.3.6.0) 64-bit.
3. Install SOA Suite 11gR1PS6 (11.1.1.7.0) 64-bit, including Enterprise Manager and the Repository Creation Utility (RCU) 11gR1PS6.

**Note:** RCU is currently only available for Windows and Linux platforms. Download and run RCU from Windows or Linux to install the SOA and MDS schemas required by the SOA Suite

installation.

4. Download and apply the patch 16964825 from support.oracle.com.
5. Create an additional MDS schema for OPSM to support personalization and customizations within the application. Create the schema using the prefix "OPSM" so it results in an OPSM\_MDS schema.
6. Set the following environment variables:
  - MW\_HOME to your Middleware Home.  
For example, MW\_HOME=/slot/ems2383/oracle/mwhome
  - MW\_ORA\_HOME to your SOA HOME.  
For example, MW\_ORA\_HOME=\$MW\_HOME/Oracle\_SOA1
  - Set the PATH variable to include \$ORACLE\_HOME/bin.  
For example, export PATH=\$ORACLE\_HOME/bin:\$PATH
7. Copy the pas.zip file to the location that you've set in your MW\_ORA\_HOME environment variable.
8. Unzip the pas.zip file using the following command:
  - `unzip pas.zip`

**Note:** If you have unzipped the pas.zip elsewhere, move it to the location that you've set in your MW\_ORA\_HOME environment variable
9. Create the tablespaces required for creating the FUSION\_ATGLITE user by running the "newInstall\_step1\_fusion\_atgliteSchema\_createTablespaces.sql" SQL script provided from within the MW\_ORA\_HOME/pas/db folder.

**Important:** Modify the script according to your requirements before running. In the script you will need to modify the path for where you want to create each of the .dbf files. These are the lines in the script that you will need to modify before running the script:

  - `'/scratch/opsm_install/install_db/oracle/fusion_transaction_table_01.dbf' SIZE 2147483648`
  - `'/scratch/opsm_install/install_db/oracle/fusion_transaction_table_02.dbf' SIZE 2147483648`

e\_02.dbf' SIZE 2147483648

- '/scratch/opsm\_install/install\_db/oracle/fusion\_transaction\_table\_03.dbf' SIZE 371195904
- '/scratch/opsm\_install/install\_db/oracle/fusion\_transaction\_table\_1.dbf' SIZE 1048576000
- '/scratch/opsm\_install/install\_db/oracle/fusion\_temp01.dbf' SIZE 6442450944

This script must be run while connected to the database as the SYS user.

10. Import the FUSION\_ATGLITE schema by navigating to the MW\_ORA\_HOME/pas/atglite folder, and running the impdp command. For example, in a Linux environment, the following commands can be run:

```
sh $ORACLE_HOME/bin/oraenv (to set the environment variables)
```

```
create directory mydir as '<MW_ORA_HOME>/pas/atglite' (keeping the quotes, replace <MW_ORA_HOME> with the actual value and run in sqlplus as the SYS user)
```

```
cd $ORACLE_HOME/bin
```

```
impdp \ "sys/<sys password>@<ORACLE_SID> as sysdba \ "
```

```
DUMPFILe=mydir:fusion_atglite.dmp
```

```
LOGFILE=mydir:fusion_atglite.log
```

**Important:** This script must be run while connected to the database as the SYS user.

11. Create database schema user/owners for PAS and PASJMS by running the "newInstall\_step1\_fepasSchema\_createUsers.sql" SQL script provided from within the MW\_ORA\_HOME/pas/db folder. It also grants additional privileges to the FUSION\_ATGLITE user.

**Important:** This script must be run while connected to the database as the SYS user. In addition, the database schema user/owners will be created locked and password expired. After the script has run successfully, be sure to edit the FUSION\_ATGLITE, PAS, and PASJMS owners to unlock them and set a new password.

12. Install the XDBPM utilities by unzipping xdbpm.zip (in the

MW\_ORA\_HOME/pas/db folder). Change to the xdbpm directory and run the xdbSupport.sql script with \$PWD as a parameter. For the Unix/Linux operating systems:

```
sqlplus <user>/<password>@<database> as sysdba @xdbSupport $PWD
```

**Important:** This script must be run while connected to the database as the SYS user.

13. If using Oracle 12c Database, grant inherit privileges to XDBPM:

```
GRANT INHERIT PRIVILEGES ON USER SYS TO XDBPM;
```

**Important:** This script must be run while connected to the database as the SYS user.

14. Register the XML Schema's used by the database objects by running the "newInstall\_step2\_pasepcSchema\_doSchemaRegistration.sql" SQL script provided within the MW\_ORA\_HOME/pas/db folder.

```
sqlplus <user>/<password>@<database> as sysdba  
@newInstall_step2_pasepcSchema_doSchemaRegistration.sql $PWD
```

**Important:** This script must be run while connected to the database as the SYS user.

15. If using Oracle 12c Database, revoke inherit privileges to XDBPM:

```
REVOKE INHERIT PRIVILEGES ON USER SYS FROM XDBPM;
```

**Important:** This script must be run while connected to the database as the SYS user.

16. Install the OPSM database objects (for example, tables, views, and so on) by running the "newInstall\_step2\_fepasSchema\_installSchema.sql" SQL script provided within the MW\_ORA\_HOME/pas/db folder.

```
sqlplus <user>/<password>@<database> @  
newInstall_step2_fepasSchema_installSchema.sql $PWD
```

**Important:** This script must be run while connected to the database as the PAS user.

17. Create synonyms for the PAS objects in the FUSION\_ATGLITE schema by running the "newInstall\_step2\_fusionSchema\_createSynonyms.sql" SQL script provided within the MW\_ORA\_HOME/pas/db folder.

**Important:** This script must be run while connected to the database as the FUSION\_ATGLITE user.

18. Grant privileges over PAS objects to the FUSION\_ ATGLITE user by running the "newInstall\_step2\_fepasSchema\_grantsForFusion.sql" SQL script provided within the MW\_ORA\_HOME/pas/db folder.

**Important:** This script must be run while connected to the database as the SYS user.

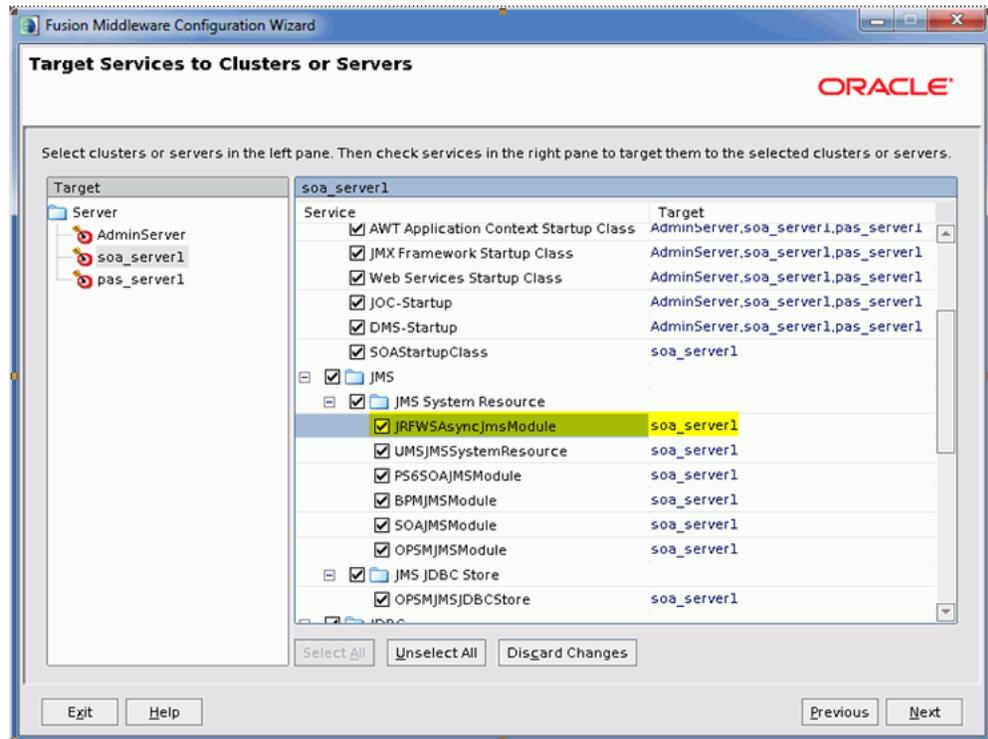
19. Copy the "oracle.pas\_template\_11.1.1.jar" file from the /pas/templates directory that is provided within pas.zip to the MW\_ORA\_HOME/common/templates/applications directory.
20. Run the Domain Configuration wizard to create/extend a domain. The wizard can be accessed by running the config.sh (Unix-based) command that is located in the /common/bin directory for the WebLogic server product directory located in MW\_HOME (for example: \$MW\_HOME/wlserver\_10.3/common/bin).

**Important:** To install the managed server, data sources, and so on, used by Oracle Pedigree and Serialization Manager (OPSM), you must select the OPSM product during the configuration process. Because the template provided is an extension template, you may either install it during the initial domain creation, or afterwards by extending an existing domain.

Make sure the following products are selected:

1. Oracle Pedigree and Serialization Manager (Oracle\_SOA1)
2. Oracle SOA Suite (Oracle\_SOA1)
3. Oracle Enterprise Manager (oracle\_common)
4. Oracle WSM Policy Manager (oracle\_common)
5. Oracle JRF WebServices Asynchronous Services (oracle\_common)
6. Oracle JRF (oracle\_common)

**In the Target Services to Clusters or Servers window, target the JRFWSAsyncJmsModule to the soa\_server1**



**Important:** Be aware that naming restrictions exist for integration and multi-domain environments. These restrictions require the use of unique domain names and WebLogic Server names for interoperating WebLogic Server domains. This is true even if they are in two different domains. In cases where multiple WebLogic domains are being utilized, and especially when using AIA integrations between OPSPM and existing transactional systems such as, Oracle E-Business Suite, it is important to adhere to these naming restrictions. The domain name and managed server names can be entered during the creation of the domain within the Domain Configuration wizard.

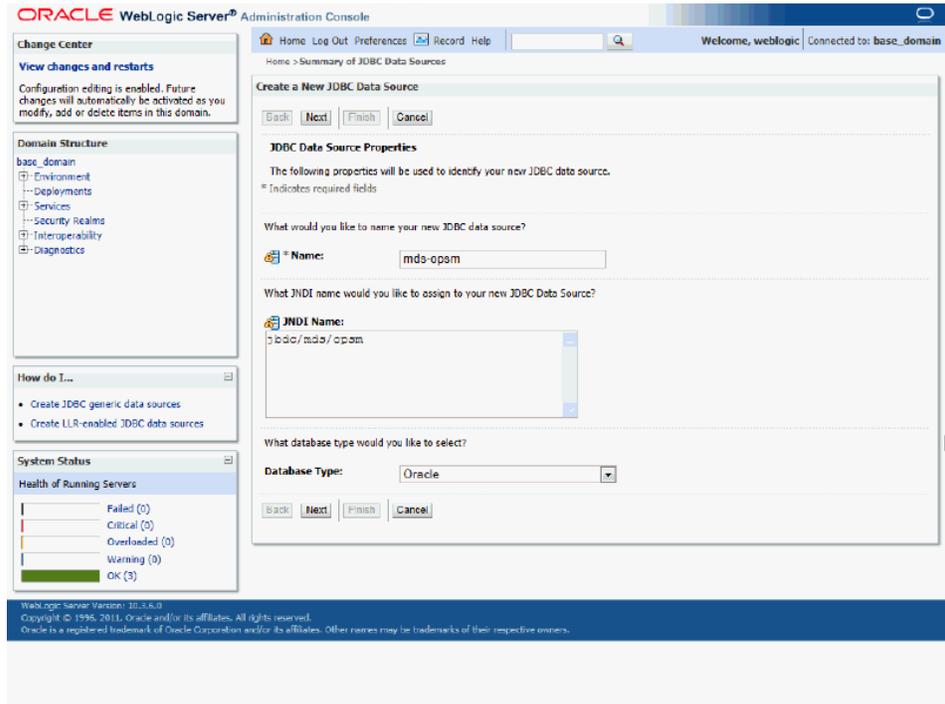
**Important:** Oracle recommends using SSL in production environments. Refer to the Configuring SSL section within the *Securing Oracle WebLogic Server* documentation for more information. In addition, the *Enterprise Deployment Guide for Oracle SOA Suite* may also be reviewed for proper environment configuration.

21. Move the jar utility from your JDK home folder into the search path. This is needed because the install script uses the jar utility to extract the files and modify the connection parameters.
22. Replace this line: `JAVA_OPTIONS="{JAVA_OPTIONS}"` in the `setDomainEnv.sh` located in `$MW_HOME/user_projects/domains/<domain_name>/bin` directory with the following: `JAVA_OPTIONS="{JAVA_OPTIONS} -DATGLITE=Y -Doracle.jdbc.createDescriptorUseCurrentSchemaForSchemaName=true"`
23. Navigate to `$MW_HOME/user_projects/domains/base_domain/bin` and startup the WebLogic server and the managed servers using the following command:
  - `./startWebLogic.sh`
  - `./startManagedWebLogic.sh soa_server1`
  - `./startManagedWebLogic.sh pas_server1`

**Note:** Open separate terminal windows to start up each server.

24. Verify if the `mds-opsm` data source has been created by logging into the WebLogic Server Administration Console (for example, `http://<server hostname>:<admin server port>/console`) and navigating to `Services > Data Sources > Summary of JDBC Data Sources`. If it is not present, create it using these steps:
  1. Select `New > Generic Data Source`.
  2. Enter `mds-opsm` for the Name.
  3. Enter `jdbc/mds/opsm` for the JNDI Name.
  4. Select `Oracle` as the Database Type.

## Create a New JDBC Data Source page



ORACLE WebLogic Server<sup>®</sup> Administration Console

Home Log Out Preferences Record Help Welcome, weblogic Connected to: base\_domain

Home > Summary of JDBC Data Sources

### Create a New JDBC Data Source

Back Next Finish Cancel

#### JDBC Data Source Properties

The following properties will be used to identify your new JDBC data source.  
\* Indicates required fields

What would you like to name your new JDBC data source?

Name:

What JNDI name would you like to assign to your new JDBC Data Source?

JNDI Name:

What database type would you like to select?

Database Type:

Back Next Finish Cancel

WebLogic Server Version: 11.3.6.0  
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Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

5. Click Next.
6. Select *Oracle's Driver (Thin) for Instance connections: Versions: 9.0.1 and later* as the Database Driver

## Create a New JDBC Data Source page

The screenshot displays the Oracle WebLogic Server Administration Console interface. The main content area is titled "Create a New JDBC Data Source" and contains the following elements:

- Navigation:** Buttons for "Back", "Next", "Finish", and "Cancel" are located at the top and bottom of the form.
- JDBC Data Source Properties:** A section titled "JDBC Data Source Properties" with the instruction: "The following properties will be used to identify your new JDBC data source."
- Database Type:** A label "Database Type:" followed by the value "Oracle".
- Database Driver:** A label "Database Driver:" followed by a dropdown menu showing "Oracle's Driver (Thin) for Instance connections, Versions 9.0.1 and later".
- Form Description:** A note below the driver dropdown: "What database driver would you like to use to create database connections? Note: \* indicates that the driver is explicitly supported by Oracle WebLogic Server."

The left sidebar contains several panels:

- Change Center:** "View changes and restarts" with a note: "Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain."
- Domain Structure:** A tree view showing "base\_domain" with sub-items: Environment, Deployments, Services, Security Realms, Interoperability, and Diagnostics.
- How do I...:** A list of links: "Create JDBC generic data sources" and "Create LLR-enabled JDBC data sources".
- System Status:** "Health of Running Servers" with a bar chart showing: Failed (0), Critical (0), Overloaded (0), Warning (0), and OK (3).

The footer contains the following text:

WebLogic Server Version: 10.3.6.0  
Copyright © 1996, 2011, Oracle and/or its affiliates. All rights reserved.  
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

7. Click Next.
8. Clear the Supports Global Transactions check box under the Transaction Options.

## Create a New JDBC Data Source page

ORACLE WebLogic Server<sup>®</sup> Administration Console

Home Log Out Preferences Record Help Welcome, weblogic Connected to: base\_domain

Home > Summary of JDBC Data Sources

### Create a New JDBC Data Source

Back Next Finish Cancel

#### Transaction Options

You have selected non-XA JDBC driver to create database connection in your new data source.

Does this data source support global transactions? If yes, please choose the transaction protocol for this data source.

Supports Global Transactions

Select this option if you want to enable non-XA JDBC connections from the data source to participate in global transactions using the *Logging Last Resource (LLR)* transaction optimization. Recommended in place of Emulate Two-Phase Commit.

Logging Last Resource

Select this option if you want to enable non-XA JDBC connections from the data source to emulate participation in global transactions using JTA. Select this option only if your application can tolerate heuristic conditions.

Emulate Two-Phase Commit

Select this option if you want to enable non-XA JDBC connections from the data source to participate in global transactions using the one-phase commit transaction processing. With this option, no other resources can participate in the global transaction.

One-Phase Commit

Back Next Finish Cancel

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Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

9. Click Next.
10. Enter the Connection Properties. Enter *OPSM\_MDS* as the Database User Name and enter the OPSM\_MDS password.

## Create a New JDBC Data Source page - Example of Connection Properties

ORACLE WebLogic Server<sup>®</sup> Administration Console

Home Log Out Preferences Record Help Welcome, weblogic Connected to: base\_domain

Home > Summary of JDBC Data Sources

### Create a New JDBC Data Source

Back Next Finish Cancel

#### Connection Properties

Define Connection Properties.

What is the name of the database you would like to connect to?

Database Name: sic08xah

What is the name or IP address of the database server?

Host Name: sic08xah.us.oracle.com

What is the port on the database server used to connect to the database?

Port: 1521

What database account user name do you want to use to create database connections?

Database User Name: OPSM\_MDS

What is the database account password to use to create database connections?

Password: ●●●

Confirm Password: ●●●

Back Next Finish Cancel

WebLogic Server Version: 10.3.6.0  
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11. Click Next.

12. Select Test Configuration and ensure that the connection is successful.

## Create a New JDBC Data Source page - Example of Test Database Connection

ORACLE WebLogic Server<sup>®</sup> Administration Console

Home Log Out Preferences Record Help Welcome, weblogic Connected to: base\_domain

Home > Summary of JDBC Data Sources

### Create a New JDBC Data Source

Test Configuration Back Next Finish Cancel

#### Test Database Connection

Test the database availability and the connection properties you provided.

What is the full package name of JDBC driver class used to create database connections in the connection pool?  
(Note that this driver class must be in the classpath of any server to which it is deployed.)

Driver Class Name:

What is the URL of the database to connect to? The format of the URL varies by JDBC driver.

URL:

What database account user name do you want to use to create database connections?

Database User Name:

What is the database account password to use to create database connections?  
(Note: for secure password management, enter the password in the Password field instead of the Properties field below)

Password:

Confirm Password:

What are the properties to pass to the JDBC driver when creating database connections?

Properties:

**Change Center**  
View changes and restarts  
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.

**Domain Structure**  
base\_domain  
└ Environment  
└ Deployments  
└ Services  
└ Security Realms  
└ Interoperability  
└ Diagnostics

**How do I...**  
• Create JDBC generic data sources  
• Create LLR-enabled JDBC data sources

**System Status**  
Health of Running Servers  
Failed (0)  
Critical (0)  
Overloaded (0)  
Warning (0)  
OK (3)

13. Click Next.

14. Target the data sources to the admin server, application server, and SOA server.

For example, AdminServer, pas\_server1, and soa\_server1.

## Create a New JDBC Data Source page - Example of Select Targets

The screenshot shows the Oracle WebLogic Server Administration Console. The main content area is titled "Create a New JDBC Data Source". Below the title, there are navigation buttons: "Back", "Next", "Finish", and "Cancel". The "Select Targets" section contains a message: "You can select one or more targets to deploy your new JDBC data source. If you don't select a target, the data source will be created but not deployed. You will need to deploy the data source at a later time." Below this message is a table with the following content:

Servers
<input checked="" type="checkbox"/> AdminServer
<input checked="" type="checkbox"/> pss_server1
<input checked="" type="checkbox"/> soa_server1

At the bottom of the table, there are navigation buttons: "Back", "Next", "Finish", and "Cancel". On the left side of the console, there are several panels: "Change Center", "Domain Structure", "How do I...", and "System Status".

15. Click Finish.

25. Create the following ATGLITE JDBC data sources in the WebLogic Server Administration Console (for example, `http://<server hostname>:<admin server port>/console`):

Name	JNDI Name	User
ApplicationDB	jdbc/ApplicationDBDS	FUSION_ATGLITE user with the OPDM database connection properties
AppMasterDB	jdbc/AppMasterDBDS	FUSION_ATGLITE user with the OPDM database connection properties
mds-ApplicationMDSDB	jdbc/mds/mds-ApplicationMDSDBDS	OPSM MDS user with the OPSM MDS database connection properties

For the above data sources:

- Database type must be Oracle.
  - The database driver must be Oracle's Driver (Thin) for Instance connections: Versions: 9.0.1 and later.
  - Clear the Supports Global Transactions check box under the Transaction Options.
  - Target the data sources to the application server and SOA server. For example, pas\_server1 and soa\_server1.
  - After creating the data sources, modify the following properties under the Connection Pool tab: Initial Capacity = 20, Minimum Capacity = 20, and Maximum Capacity = 4096 (same as the pasDB data source settings).
26. Change the Staging Mode property under the server Configuration tab and Deployment sub-tab of the application server and SOA server (for example, pas\_server1 and soa\_server1) to nostage.
  27. Ensure the Listen Address and Listen Port properties of the servers (for example, AdminServer, pas\_server1 and soa\_server1) is populated with the host address and the corresponding port for that server, under the server Configuration tab and General sub-tab.
  28. Backup the user\_projects directory under the middleware home. This is needed because the install script modifies the domain and if the install fails for any reason, you will need this backup to restore the original domain.
  29. Populate the values in pas\_install.properties to ensure that a description of every property is available before the property is referred to. The appropriate parameters are described in the comments of the pas\_install.properties file. The pas\_install.properties file is located in the MW\_ORA\_HOME/pas/scripts directory.

**Important:** The installation script will provide a prompt to ask if you would like to configure the Oracle Pedigree and Serialization Manager application for SSL. Oracles recommendation is to run applications over SSL; therefore, the default is to configure the application for SSL. Be sure to provide the desired SSL port numbers within the pas\_install.properties file to ensure the SSL ports are set properly.

### Optional Steps:

1. Optional: PROXY\_SETTINGS to -Dhttp.proxySet=true -Dhttp.proxyHost=[PROXY\_SERVER] -Dhttp.proxyPort=[PROXY\_PORT] -Dhttp.

```
nonProxyHosts=localhost|[SOA SERVER HOSTNAME]|*.[your domain]
```

2. USER\_MEM\_ARGS to -Xms512m -Xmx1024m -XX:CompileThreshold=8000 -XX:Permsize=512m -XX:MaxPermSize=1024m

### Configure an Access Control List File for Web Service E-mail Notifications (Optional):

If you want the system to send notification e-mails if errors are detected on transactions or transactions that are locked as "In Progress" during the processing of the Transaction Service, Serial Service, and Product Service web services then you must configure an access control list (ACL) file. To configure an ACL file you will need to:

- Create an ACL file.
- Assign the ACL file to the outgoing SMTP network host for your e-mail server.
- Grant permission to use the ACL file.

Before you can use PL/SQL network utility packages such as UTL\_SMTP, you must configure an ACL file that enables fine-grained access to external network services.

### To Configure an ACL File for Web Service E-mail Notifications

1. Log into the database as the "sys" user.
2. Create an ACL file.

Example for creating an ACL file:

```
begin
    dbms_network_acl_admin.create_acl (
        acl => 'utl_smtp.xml',
        description => 'Enables mail to be sent',
        principal => 'PAS', is_grant => true,
        privilege => 'connect',
        start_date => TO_DATE('2007-12-27', 'yyyy-mm-dd'),
        end_date => TO_DATE('2022-12-27', 'yyyy-mm-dd')
    );
    commit;
end;
/
```

---

Name	Parameter
acl	The name of the access control list XML file, generated relative to the "/sys/acls" directory in the XML DB Repository.

---

Name	Parameter
description	A description of the ACL.
principal	Principal (database user or role) to whom the privilege is granted or denied. Case sensitive.
is_grant	Privilege is granted or denied.
privilege	<p>Network privilege to be granted or denied - "connect   resolve" (case sensitive). A database user needs the connect privilege to an external network host computer if they are connecting using the UTL_TCP, UTL_HTTP, UTL_SMTP, and UTL_MAIL utility packages.</p> <p>To resolve a host name that was given a host IP address, or the IP address that was given a host name, with the UTL_INADDR package, grant the database user the resolve privilege.</p>
start_date	<p>Default value NULL. When entered, the ACL will only be active on or after the entered date.</p> <p>Date formats are:</p> <ul style="list-style-type: none"> <li>• yyyy-mm-dd (2013-09-01)</li> <li>• dd-mm-yyyy (01-09-2013)</li> <li>• mm-dd-yyyy (09-01-2013)</li> </ul> <p>You can enter the date in any format if the valid date format is provided.</p>

Name	Parameter
end_date	<p>An optional end date for the ACL.</p> <p>Date formats are:</p> <ul style="list-style-type: none"> <li>• yyyy-mm-dd (2013-09-01)</li> <li>• dd-mm-yyyy (01-09-2013)</li> <li>• mm-dd-yyyy (09-01-2013)</li> </ul> <p>You can enter the date in any format if the valid date format is provided.</p>

3. Assign the ACL to the outgoing SMTP network host for your e-mail server.

Example for assigning ACL to outgoing SMTP network:

```
begin
  dbms_network_acl_admin.assign_acl (
    acl => 'utl_smtp.xml',
    host => 'your smtp host name',
    lower_port => your smtp port);
  commit;
end;
/
```

Name	Parameter
acl	The name of the access control list XML file.
host	The hostname, domain, IP address, or subnet to be assigned. Hostnames are case sensitive, and wildcards are allowed for IP addresses and domains.
lower_port	Defaults to NULL. Specifies the lower port range for the "connect" privilege.
upper_port	Defaults to NULL. If the lower_port is entered, and the upper_port is NULL, it is assumed the upper_port matches the lower_port.

4. Grant permission to use the ACL file.

Example for adding the privilege:

```
begin
    dbms_network_acl_admin.add_privilege (
        acl => 'utl_smtp.xml',
        principal => 'PAS',
        is_grant => TRUE,
        privilege => 'connect',
        start_date => TO_DATE('2007-12-27', 'yyyy-mm-dd'),
        end_date => TO_DATE('2022-12-27', 'yyyy-mm-dd')
    );

    commit;
end;
/
```

---

Name	Parameter
acl	The name of the access control list XML file.
principal	Principal (database user or role) to whom the privilege is granted or denied. Case sensitive.
is_grant	Network privilege to be granted or denied - "connect   resolve" (case sensitive). A database user needs the connect privilege to an external network host computer if they are connecting using the UTL_TCP, UTL_HTTP, UTL_SMTP, and UTL_MAIL utility packages.  To resolve a host name that was given a host IP address, or the IP address that was given a host name, with the UTL_INADDR package, grant the database user the resolve privilege.
privilege	Network privilege to be granted or denied.
position	Position (1-based) of the access control entry (ACE). If a non-NULL value is given, the privilege will be added in a new ACE at the given position and there must not be another ACE for the principal with the same is_grant (grant or deny). If a NULL value is given, the privilege will be added to the ACE matching the principal and the is_grant if one exists, or to the end of the ACL if the matching ACE does not exist.

---

Name	Parameter
start_date	<p data-bbox="992 310 1463 464">Start date of the access control entry (ACE). When entered, the ACE will be valid only on and after the entered date. The start_date will be ignored if the privilege is added to an existing ACE.</p> <p data-bbox="992 495 1175 516">Date formats are:</p> <ul data-bbox="992 548 1317 716" style="list-style-type: none"> <li data-bbox="992 548 1317 579">• yyyy-mm-dd (2013-09-01)</li> <li data-bbox="992 611 1317 642">• dd-mm-yyyy (01-09-2013)</li> <li data-bbox="992 674 1317 705">• mm-dd-yyyy (09-01-2013)</li> </ul> <p data-bbox="992 751 1442 814">You can enter the date in any format if the valid date format is provided .</p>
end_date	<p data-bbox="992 863 1463 1045">End date of the access control entry (ACE). When entered, the ACE will expire after the entered date. The end_date must be greater than or equal to the start_date. The end_date will be ignored if the privilege is added to an existing ACE.</p> <p data-bbox="992 1077 1175 1098">Date formats are:</p> <ul data-bbox="992 1129 1317 1297" style="list-style-type: none"> <li data-bbox="992 1129 1317 1161">• yyyy-mm-dd (2013-09-01)</li> <li data-bbox="992 1192 1317 1224">• dd-mm-yyyy (01-09-2013)</li> <li data-bbox="992 1255 1317 1287">• mm-dd-yyyy (09-01-2013)</li> </ul> <p data-bbox="992 1333 1442 1396">You can enter the date in any format if the valid date format is provided .</p>

## Installation Tasks

1. Make sure that the admin server, pas server, and SOA server are not running.
2. Navigate to the PAS script directory.  
For example, `cd MW_ORA_HOME/pas/scripts`
3. Execute the install script to install Oracle Pedigree and Serialization Manager.

For Unix-based installs, utilize the "pasMasterInstall.py" script. Run the installation script using the following command:

```
$MW_ORA_HOME/common/bin/wlst.sh ./pasMasterInstall.py
```

Ensure that the terminal on which you are running the install has sufficient scroll-back lines (for example, 2000) to capture all the output from the install activities. This enables you to review all of the install activities later.

**Important:** The install script attempts to start the Admin Server. It tests in a loop if the server is up before it continues. If you installed your WebLogic Server in Production Mode, the Admin server requires a userid and password to start which the script does not set for security reasons. In this case, you must start a new terminal window to start the Admin Server. After the script detects the server has started, it will continue.

After the Admin Server has been started, the install script will prompt you to start up the managed servers (for example, soa\_server1 and pas\_server1). To do so, make sure the environment variables are set as described in the Pre-Installation Tasks, page 3-1 section, then navigate to MW\_HOME/user\_projects/domains/base\_domain/bin. Using separate terminal windows, startup the PAS and SOA managed servers. Keeping in mind your actual managed server names may be different, use the following commands as examples:

For Unix-based installs:

- **sh startManagedWebLogic.sh soa\_server1**
- **sh startManagedWebLogic.sh pas\_server1**

After the managed servers are started, press enter in the first terminal where pasMasterInstall.py is run to continue processing the install script.

4. The OPSM installation output is captured in the scroll buffer of the terminal on which you run the installation. Scroll through the buffer to check for errors.
5. After the install script has completed successfully, you must restart the Admin Server and managed servers (for example, soa\_server1 and pas\_server1) for changes made by the install script to take effect.
6. (Optional) Set up WebLogic components for serial destinations.

**Important:** If you are not using serial destinations this setup is not required.

For information on how to set up WebLogic components for serial destinations, see *Appendix A - Setting Up WebLogic Components for Serial Destinations* in this guide.

# Post Installation Tasks

## Verify that the Servers are Running

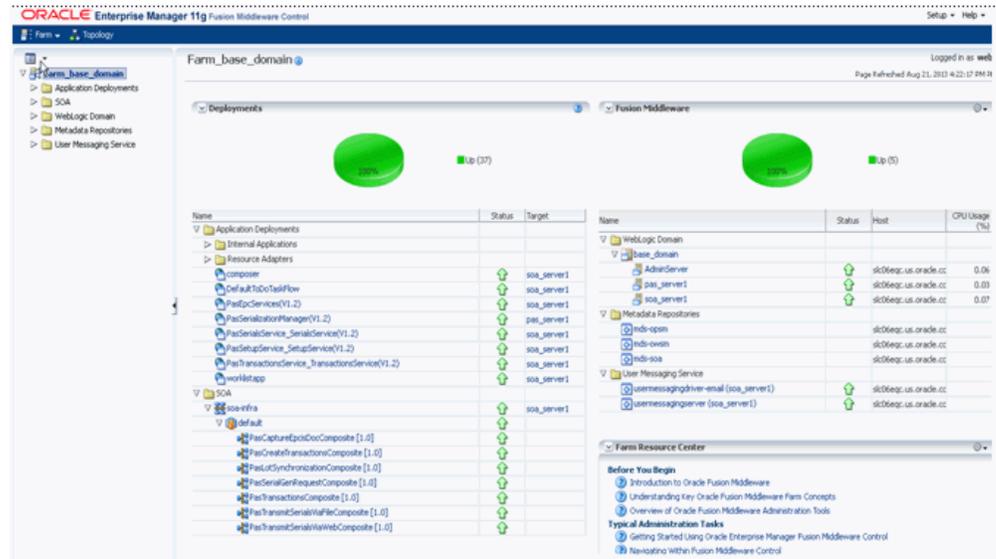
After installation is complete your domain should be running with at least the following:

- AdminServer
- SOA Server (for example, soa\_server1)
- PAS Server (for example, pas\_server1)
- BIP Server (Optional if you opted to install Oracle BI Publisher for Pedigree)

To Verify that the Servers are Running:

1. Login to Enterprise Manager 11g.
2. Select the appropriate domain from the WebLogic Domain folder.

**Example of Oracle Enterprise Manager page**



The current statuses are displayed.

The SOA server will have all the PAS composites marked as active. All of the web services are targeted to the SOA server and they should be marked as active. The Oracle Pedigree and Serialization Manager (OPSM) application called PasSerializationManager should be targeted to the PAS server and should be

marked as active. There should be a pasDB and pasJMSDB JDBC Data Source that should be targeted to both the PAS and SOA servers.

The following are helpful URLs if the Oracle Pedigree and Serialization Manager application was not configured for SSL:

- WLS (WebLogic Server) Console: `http://<adminHost>:<adminPort>/console`
- EM (Enterprise Manager) Console: `http://<adminHost>:<adminPort>/em`
- WorklistApp: `http://<soaHost>:<soaPort>/integration/worklistapp`
- OPSM: `http://<pasHost>:<pasPort>/opsm/faces/index.jspx`

The following are helpful URLs if the Oracle Pedigree and Serialization Manager application was configured for SSL:

- WLS (WebLogic Server) Console: `https://<adminHost>:<adminSSLPort>/console`
- EM (Enterprise Manager) Console: `https://<adminHost>:<adminSSLPort>/em`
- WorklistApp: `https://<soaHost>:<soaSSLPort>/integration/worklistapp`
- OPSM: `https://<pasHost>:<pasSSLPort>/opsm/faces/index.jspx`

## Verify JRFWSAsync Components are Targeted Appropriately

The Oracle Pedigree and Serialization Manager (OPSM) application uses web services that support asynchronous processing. For these web services to function properly, they use the Oracle JRF WebServices Asynchronous Services component within the WebLogic Server. It is important that this component is targeted to the same managed server that is used to run the OPSM web services. In a typical installation, this would be your SOA server (for example, `soa_server1`).

### To Verify JRFWSAsync Components are Targeted Appropriately:

1. Login to Oracle WebLogic Administration Console.
2. Select Persistent Stores from under the Services node in the Navigation Tree.
3. Verify the target for the JRFWSAsyncFileStore component is your SOA server.
4. Select JMS Servers from under the Services > Messaging node in the Navigation Tree.
5. Verify the target for the JRFWSAsyncJmsServer component is your SOA server.
6. Select JMS Modules from under the Services > Messaging node in the Navigation

Tree.

7. Select the JRFWSAsynchJmsModule component.
8. Click the Targets tab and verify that your SOA server is the selected target.

**Important:** If any of the above mentioned JRFWSAsynch components are not targeted as described, re-target them. It is normal to receive an error when attempting to re-target these components due to dependencies between them. It is safe to ignore the error because it will clear once all three components have been re-targeted.

## Configure Security for the Application and Services

After completing all the above post installation tasks, you must configure security for both the application and services. This includes creation of users that are authorized to access the application, as well as, attaching web service security policies to secure all web services and SOA composites that are used within the application. Refer to the *Oracle Pedigree and Serialization Manager Security Guide* for information on securing both the application and services.

## Load Existing OPSM Templates Into Oracle BI Publisher

### To Load Existing OPSM Templates Into Oracle BI Publisher 10g

1. Create a user named Administrator.
2. Login to Oracle BI Publisher using the Administrator user.
3. Navigate to My Folders.
4. Create a folder named *OPSM* (If it is not present).
5. Upload the Pedigree.zip file to the OPSM folder.
6. Edit the Pedigree data model.
7. Click the Manage Private Data Sources button.
8. Click the Add Data Source button and create a data source pointing to your OPSM database.
9. Under the Data Model tree on the right, open the Data Sets node and click the Pedigree Data Set.
10. Click the Edit icon on the toolbar.

11. Select the Data Source pointing to the OPSM database.
12. Click the Home link on the top right.
13. Click Open on the Pedigree report to view the report.  
You can view and download the reports in the desired format.

**To Load Existing OPSM Templates Into Oracle BI Publisher 11g:**

1. Create a user named Administrator.
2. Login to Oracle BI Publisher using the Administrator user.
3. Select the Catalog tab.
4. Navigate to My Folders.
5. Create a folder named *OPSM* (If it is not present).
6. Upload the Pedigree.xdoz and Pedigree.xdmz files to the OPSM folder.
7. Edit the Pedigree data model.
8. Click the Manage Private Data Sources button.
9. Click the Add Data Source button and create a data source pointing to your OPSM database.
10. Under the Data Model tree on the right, open the Data Sets node and click the Pedigree Data Set.
11. Click the Edit icon on the toolbar.
12. Select the Data Source pointing to the OPSM database.
13. Click the Home link on the top right.
14. Click Open on the Pedigree report to view the report.  
You can view and download the reports in the desired format.

## Reinstallation Tasks

In the event that an installation fails, follow the procedure below to perform a new installation. Keep in mind that your actual managed server names may differ from those used in the sample commands listed below.

1. Make sure that the environment variables are set as described in Pre-Installation Tasks, page 3-1, and that you are in the DOMAIN\_HOME (typically MW\_HOME/user\_projects/domains/base\_domain).
2. Stop the SOA Server.  
Go to DOMAIN\_HOME/bin and issue the following command at the prompt:  
For Unix-based installs:  
**sh stopManagedWebLogic.sh soa\_server1 t3://<servername>:<adminport>**  
For example:  
sh stopManagedWebLogic.sh soa\_server1 t3://host.oracle.com:7001
3. Stop the PAS Server.  
Go to DOMAIN\_HOME/bin and issue the following command at the prompt:  
For Unix-based installs:  
**sh stopManagedWebLogic.sh pas\_server1 t3://<servername>:<adminport>**  
For example:  
sh stopManagedWebLogic.sh pas\_server1 t3://host.oracle.com:7001
4. Stop the Admin Server.  
Go to DOMAIN\_HOME/bin and issue the following command at the prompt:  
For Unix-based installs:  
**sh stopWebLogic.sh**
5. Perform cleanup tasks:
  1. Rename or remove the user\_projects directory in MW\_HOME. Restore the user\_projects backup from the backup created in Step 28 of the Pre-Installation Tasks.
  2. Delete the pas directory under MW\_ORA\_HOME.
  3. Delete oracle.pas\_template\_11.1.1.jar from MW\_ORA\_HOME/common/templates/applications directory.
6. Perform step 6 from Pre-Installation Tasks, page 3-1.
7. Perform step 8 from Pre-Installation Tasks, page 3-1.
8. Perform step 19 from Pre-Installation Tasks, page 3-1.
9. Perform step 29 from Pre-Installation Tasks, page 3-1

**10.** Perform a new install.

Follow the steps for a new install starting with step 1 under the section Installation Tasks, page 3-19.

---

# Upgrading Oracle Pedigree and Serialization Manager from 1.2.0.18.0 to 2.1.0.0.0

This chapter lists the steps for upgrading Oracle Pedigree and Serialization Manager (OPSM) from 1.2.0.18.0 to 2.1.0.0.0.

This chapter covers the following topics:

- Pre-Upgrade Tasks
- Upgrade Tasks
- Post Upgrade Tasks
- Re-Upgrade Tasks

## Pre-Upgrade Tasks

1. Shutdown the admin server and the managed servers (for example, soa\_server1 and pas\_server1).
2. Upgrade to Oracle Database 12c Release 1 (12.1.0.1.0) 64-bit Production Database, Enterprise Edition, if needed.

Upgrading the database is NOT required for Oracle Pedigree and Serialization Manager Release 2.1.0.0.0.

**Important:** When installing Oracle Database 12c Release 1, choose Advanced Install, then in the following screens, deselect the *Create as Container database* option and select the AL32UTF8 character set.

3. Download and apply the latest patches from Release 1.2 from [support.oracle.com](http://support.oracle.com):

<b>Patch</b>	<b>Part Number/Patch Number</b>	<b>Notes</b>
OPSM 1.2.0.0.0	17426567	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.1.0	18305980	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.2.0	18390644	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.3.0	18449428	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.3.1	18520466	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.4.0	18613786	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.5.1	20094334	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.6.0	20296116	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.7.0	21244455	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.10.0	21692956	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.11.0	21785676	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.11.1	22201666	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.12.0	21785819	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]

Patch	Part Number/Patch Number	Notes
OPSM 1.2.0.13.0	21785689	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.14.0	22607589	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.14.1	22698644	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.14.2	22712716	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.15.0	23022989	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.16.0	23344184	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.17.0	20449989	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.18.0	24687534	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]

4. Set the following environment variables:

- MW\_HOME to your Middleware Home

For example,

Unix-based systems:

MW\_HOME=/slot/ems2383/oracle/mwhome

Windows-based systems:

MW\_HOME = D:\scratch\opsm\_install\Oracle\Middleware

- MW\_ORA\_HOME to your SOA HOME

For example,

Unix-based systems:

MW\_ORA\_HOME=\$MW\_HOME/Oracle\_SOA1

Windows-based systems:

MW\_ORA\_HOME=%MW\_HOME%\Oracle\_SOA1

- ORACLE\_DB\_HOME variable to include ORACLE\_HOME

For example,

Unix-based systems:

ORACLE\_DB\_HOME = /scratch/opsm\_install/app/oracle/product/11.2.0/dbhome\_1

Windows-based systems:

ORACLE\_DB\_HOME =D:\scratch\opsm\_install\app\oracle\product\11.2.0\dbhome\_1

- PATH variable to include ORACLE\_HOME\bin

For example,

Unix-based systems:

PATH=\$ORACLE\_DB\_HOME/bin:\$PATH

Windows-based systems:

PATH=%ORACLE\_HOME%\bin;%PATH%

- ORACLE\_HOME

For example,

Unix-based systems:

ORACLE\_HOME= /scratch/opsm\_install/app/oracle/product/11.2.0/dbhome\_1

Windows-based systems:

ORACLE\_HOME= D:\scratch\opsm\_install\app\oracle\product\11.2.0\dbhome\_1

- JAVA\_HOME variable to your Java installed directory

For example,

Unix-based systems:

JAVA\_HOME = /scratch/opsm\_install/Java/jdk1.6.0\_06

Windows-based systems:

JAVA\_HOME = D:\Java\jdk1.6.0\_06

- ORACLE\_SID

For example,

Unix-based systems:

```
ORACLE_SID = slc12ltk
```

Windows-based systems:

```
ORACLE_SID = slc12ltk
```

**Note:** You can verify an environment variable setting by using the echo command. For example,

Unix-based systems:

```
echo $ORACLE_DB_HOME
```

Windows-based systems:

```
echo %ORACLE_DB_HOME%
```

5. Copy the pas.zip file to the location that you have set in your MW\_ORA\_HOME environment variable.
6. Merge the applications, db, soa, and scripts directories from the extracted pas.zip within the existing pas folder. The atglite and odi directories must remain since the deployed libraries refer to the jars inside that directory. There are no changes to the files in adapters, atglite, odi, soa, and templates directories.

Unzip the pas.zip file using the following command:

```
unzip -o pas.zip
```

7. Take a backup of the OPSM data. In particular, take a backup of any custom code in the package specification and body of the PAS\_SERIAL\_GEN and PAS\_SERIAL\_VAL database packages.
8. Move the jar utility from your JDK home folder into the search path. This is needed because the install script uses the jar utility to extract the files and modify the connection parameters.
9. If you are using a 12c Database please execute this command using the sys user before the upgrade:

```
GRANT INHERIT PRIVILEGES ON USER SYS TO XDBPM;
```

10. Navigate to \$MW\_HOME/user\_projects/domains/base\_domain/bin, and startup the WebLogic server and the managed servers.

On Unix-based systems use the following commands:

```
./startWebLogic.sh
```

```
./startManagedWebLogic.sh soa_server1
```

```
./startManagedWebLogic.sh pas_server1
```

On Windows-based systems use the following commands:

```
startWebLogic.cmd  
startManagedWebLogic.cmd soa_server1  
startManagedWebLogic.cmd pas_server1
```

11. Backup the user\_projects directory under the middleware home. This is needed because the upgrade script modifies the domain and if the upgrade fails for any reason, you will need this backup to restore the original domain.
12. Populate the values in properties file to ensure that a description of every property is available before the property is referred to. The appropriate parameters are described in the comments of the properties file. The properties file is located in the MW\_ORA\_HOME/pas/scripts directory.

For Unix-based systems, use the pas\_install.properties file.

For Windows-based systems, use the pas\_install\_win.properties.file.

## Upgrade Tasks

1. Make sure that the admin server and the managed servers (for example, soa\_server1 and pas\_server1) are not running.
2. Navigate to the PAS script directory.  
For example, cd MW\_ORA\_HOME/pas/scripts
3. Execute the upgrade script to upgrade Oracle Pedigree and Serialization Manager.

For Unix-based systems, use the "pasMasterUpgrade12To21.py" script. Run the installation script using the following command:

```
$MW_ORA_HOME/common/bin/wlst.sh ./pasMasterUpgrade12To21.py
```

For Windows-based systems, use the "pasMasterUpgrade12To21Win.py" script. Run the installation script using the following command:

```
%MW_ORA_HOME%\common\bin\wlst.cmd pasMasterUpgrade12To21Win.py
```

Ensure that the terminal on which you are running the upgrade has sufficient scroll-back lines (for example, 5000) to capture all the output from the install activities. This enables you to review all of the upgrade activities later.

**Important:** The upgrade python script will run database upgrade scripts. Please observe the console output and check if there are errors while running of database scripts and continue with the upgradation.

During the upgrade, you are prompted to answer this question after each SQL script is executed: Are there any errors in script? y/n. If you answer no, the upgrade script continues and assumes there are no errors in the script execution so far. If you answer yes, the upgrade script quits and assumes there are errors in the script execution.

In the case of script execution failure, after you have corrected the errors, comment the sql script files in the upgrade script which have already run successfully before re-running the upgrade script.

**Note:** If you see errors similar to below while removing soa temporary files, these errors can be ignored and you may continue with the upgrade:

```
rm: cannot unlink entry "C:
/Oracle/MIDDLE~1/user_projects/domains/base_domain/servers/so
a_server1/tmp/_WL_user/soa-infra/y2559h/war/WEB-
INF/default/PasTransmitSerialsViaFileComposite!1.0_soa_7c78c21f-
f0d9-453b-91d3-
04fdaaa5dcd3/transmitserialsviafile_client_ep/TransmitSerialsViaFi
le.wsdl": The system cannot find the path specified.
```

The upgrade script attempts to start the Admin Server. It tests in a loop if the server is up before it continues. If you installed your WebLogic Server in Production Mode, the Admin server requires a userid and password to start which the script does not set for security reasons. In this case, you must start a new terminal window to start the Admin Server. After the script detects the server has started, it will continue.

After the Admin Server has been started, the upgrade script will prompt you to start up the managed servers (for example, soa\_server1 and pas\_server1). To do so, make sure the environment variables are set as described in the Pre-Upgrade Tasks, page 4-1 section, then navigate to MW\_HOME/user\_projects/domains/base\_domain/bin. Using separate terminal windows, startup the PAS and SOA managed servers. Keeping in mind your actual managed server names may be different, use the following commands as examples:

For Unix-based systems:

- `sh startManagedWebLogic.sh soa_server1`
- `sh startManagedWebLogic.sh pas_server1`

For Windows-based systems:

- `startManagedWebLogic.cmd soa_server1`
- `startManagedWebLogic.cmd pas_server1`

After the managed servers are started, press enter in the first terminal where the

"pasMasterUpgrade12To21.py" script or "pasMasterUpgrade12To21Win.py" script is run to continue processing the install script.

4. The OPSM installation output is captured in the scroll buffer of the terminal on which you run the installation. Scroll through the buffer to check for errors. The following warnings, if seen, can be ignored:
  - WARNING: Failed to create ConnectionDBean for {http://xmlns.oracle.com/oracle/apps/fnd/applcore/flex/deployment/service/model/} FlexDeploymentService
  - WARNING: Failed to create ConnectionDBean for AtkHelpPortalService
5. After the upgrade script has completed successfully, you must restart the Admin Server and managed servers (for example, soa\_server1 and pas\_server1) for changes made by the upgrade script to take effect.

## Post Upgrade Tasks

### Correct Contact and User Information

1. The data in the PAS\_S\_LOCATION\_CONTACTS table and PAS\_EPC\_USERS table needs to be cleaned up by populating missing information and correcting inconsistent information.

The PAS\_S\_LOCATION\_CONTACTS table must not have any rows with a null contact\_user\_id. Run the following SQL statement to identify rows with a null contact\_user\_id and populate the contact\_user\_id where ever it is null. Since this is also used for digital signatures, if that is enabled, you may want to give the WebLogic username that the contact has or will have in the future.

```
select * from PAS_S_LOCATION_CONTACTS where contact_user_id is null
```

**Important:** This sql statement must be run while connected to the database as the PAS user.

2. If there are rows with duplicate contact\_user\_id values in the PAS\_S\_LOCATION\_CONTACTS table, all the other user related information must be identical for these rows. The script "checkLocationContactUserInfoConsistent.sql" displays which records are inconsistent. This script is located in the pas/db directory. Update the rows so that they are consistent.

**Important:** This script must be run while connected to the database as the PAS user.

3. If the same username is present in both the PAS\_EPC\_USERS and PAS\_S\_LOCATION\_CONTACTS tables, the user data in the two tables must be consistent. Run "checkLocationContactUserInfoConsistentWithEpcUsers.sql" to identify the inconsistent rows. Update the rows so that they are consistent.

**Important:** This script must be run while connected to the database as the PAS user.

4. The "central\_user\_data\_migration.sql" script performs the same verification as in the previous three steps (Step 1 through Step 3). If it fails, the script will exit with an error message and will not perform the migration. If it passes, it will migrate data from the PAS\_S\_LOCATION\_CONTACTS and PAS\_EPC\_USERS tables into the PAS\_S\_USERS table. It updates the USER\_ID column in PAS\_S\_LOCATION\_CONTACTS table with the value in the USER\_ID column in the PAS\_S\_USERS table. It populates the PAS\_EPC\_USER\_POLICY\_ASSOC table based on the data in the PAS\_EPC\_USERS table.

**Important:** This script must be run while connected to the database as the PAS user.

## Migrate Locations to Packs Table

Migrate the locations to the packs table by running the "upgradeInstall\_step3\_fepasSchema\_migrateLocationToPacksTable.sql" SQL script provided from within the MW\_ORA\_HOME/pas/db folder.

**Important:** This script must be run while connected to the database as the PAS user.

## Verify Servers are Running

Refer to the Post Installation Tasks, page 3-21 section to verify that the servers are running.

## Configure Security for the Application and Services

Refer to the *Oracle Pedigree and Serialization Manager Security Guide* for the new jobs, duties, application roles, and privileges introduced in 2.1.0.0.0.

## Load Existing OPSM Templates into Oracle BI Publisher 11g

If you decide to use Oracle BI Publisher 11g, follow the instructions in the *Installing Oracle Pedigree and Serialization Manager 2.0.0.0.0 chapter*, Post Installation Tasks, page 3-

21 section, Load Existing OPSM Templates Into Oracle BI Publisher 11g.

## Restore Back Up of Custom PLSQL Procedures

Restore the backup of the custom code in the PAS\_SERIAL\_GEN and PAS\_SERIAL\_VAL packages.

## Re-Upgrade Tasks

In the event that an upgrade fails, follow the procedure below to perform a new upgrade. Keep in mind that your actual managed server names may differ from those used in the sample commands listed below.

1. Make sure that the environment variables are set as described in Pre-Upgrade Tasks, page 4-1, and that you are in the DOMAIN\_HOME (typically MW\_HOME/user\_projects/domains/base\_domain).

2. Stop the SOA Server.

Go to DOMAIN\_HOME/bin and issue the following command at the prompt:

For Unix-based systems:

```
sh stopManagedWebLogic.sh soa_server1 t3://<servername>:<adminport>
```

For example:

```
sh stopManagedWebLogic.sh soa_server1 t3://host.oracle.com:7001
```

For Windows-based systems:

```
stopManagedWebLogic.cmd soa_server1 t3://<servername>:<adminport>
```

For example:

```
stopManagedWebLogic.cmd soa_server1 t3://host.oracle.com:7001
```

3. Stop the PAS Server.

Go to DOMAIN\_HOME/bin and issue the following command at the prompt:

For Unix-based systems:

```
sh stopManagedWebLogic.sh pas_server1 t3://<servername>:<adminport>
```

For example:

```
sh stopManagedWebLogic.sh pas_server1 t3://host.oracle.com:7001
```

For Windows-based systems:

```
stopManagedWebLogic.cmd pas_server1 t3://<servername>:<adminport>
```

For example:

```
stopManagedWebLogic.cmd pas_server1 t3://host.oracle.com:7001
```

4. Stop the Admin Server.

Go to DOMAIN\_HOME/bin and issue the following command at the prompt:

For Unix-based systems:

```
sh stopWebLogic.sh
```

For Windows-based systems:

```
stopWebLogic.cmd
```

5. Perform cleanup tasks:

1. Clean up the MW\_HOME/user\_projects directory and restore from the backup taken before the initial installation.
2. Delete the pas directory under MW\_ORA\_HOME.

Use dbUpgrade = no in the properties file to prevent repeated upgrade of the database if the database upgrade scripts were already successfully executed.

6. Perform step 4 from Pre-Upgrade Tasks, page 4-1.

7. Perform step 6 from Pre-Upgrade Tasks, page 4-1.

8. Perform a new upgrade.

Follow the steps for a new upgrade starting with step 1 under the section Upgrade Tasks, page 4-6.



---

# Upgrading Oracle Pedigree and Serialization Manager from 1.2.0.19.0 to 2.1.0.1.0

This chapter lists the steps for upgrading Oracle Pedigree and Serialization Manager (OPSM) from 1.2.0.19.0 to 2.1.0.1.0.

If you are upgrading from 1.2.0.19.0, you must also apply the 2.1.0.1.0 patch after upgrading to 2.1.0.0.0. You cannot stay on 2.1.0.0.0. Failure to do so will result in loss of functionality.

This chapter covers the following topics:

- Pre-Upgrade Tasks
- Upgrade Tasks
- Post Upgrade Tasks
- Re-Upgrade Tasks

## Pre-Upgrade Tasks

1. Shutdown the admin server and the managed servers (for example, soa\_server1 and pas\_server1).
2. Upgrade to Oracle Database 12c Release 1 (12.1.0.1.0) 64-bit Production Database, Enterprise Edition, if needed.

Upgrading the database is NOT required for Oracle Pedigree and Serialization Manager Release 2.1.0.0.0.

**Important:** When installing Oracle Database 12c Release 1, choose Advanced Install, then in the following screens, deselect the *Create as Container database* option and select the AL32UTF8 character set.

3. Download and apply the latest patches from Release 1.2 from [support.oracle.com](http://support.oracle.com):

<b>Patch</b>	<b>Part Number/Patch Number</b>	<b>Notes</b>
OPSM 1.2.0.0.0	17426567	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.1.0	18305980	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.2.0	18390644	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.3.0	18449428	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.3.1	18520466	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.4.0	18613786	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.5.1	20094334	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.6.0	20296116	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.7.0	21244455	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.10.0	21692956	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.11.0	21785676	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.11.1	22201666	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.12.0	21785819	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]

Patch	Part Number/Patch Number	Notes
OPSM 1.2.0.13.0	21785689	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.14.0	22607589	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.14.1	22698644	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.14.2	22712716	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.15.0	23022989	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.16.0	23344184	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.17.0	20449989	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.18.0	24687534	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 1.2.0.19.0	25190074	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]

4. Set the following environment variables:

- MW\_HOME to your Middleware Home

For example,

Unix-based systems:

MW\_HOME=/slot/ems2383/oracle/mwhome

Windows-based systems:

MW\_HOME = D:\scratch\opsm\_install\Oracle\Middleware

- MW\_ORA\_HOME to your SOA HOME

For example,

Unix-based systems:

```
MW_ORA_HOME=$MW_HOME/Oracle_SOA1
```

Windows-based systems:

```
MW_ORA_HOME=%MW_HOME%\Oracle_SOA1
```

- ORACLE\_DB\_HOME variable to include ORACLE\_HOME

For example,

Unix-based systems:

```
ORACLE_DB_HOME = /scratch/opsm_install/app/oracle/product/11.2.0/dbhome_1
```

Windows-based systems:

```
ORACLE_DB_HOME =D:\scratch\opsm_install\app\oracle\product\11.2.0\dbhome_1
```

- PATH variable to include ORACLE\_HOME\bin

For example,

Unix-based systems:

```
PATH=$ORACLE_DB_HOME/bin:$PATH
```

Windows-based systems:

```
PATH=%ORACLE_HOME%\bin;%PATH%
```

- ORACLE\_HOME

For example,

Unix-based systems:

```
ORACLE_HOME= /scratch/opsm_install/app/oracle/product/11.2.0/dbhome_1
```

Windows-based systems:

```
ORACLE_HOME= D:\scratch\opsm_install\app\oracle\product\11.2.0\dbhome_1
```

- JAVA\_HOME variable to your Java installed directory

For example,

Unix-based systems:

```
JAVA_HOME = /scratch/opsm_install/Java/jdk1.6.0_06
```

Windows-based systems:

```
JAVA_HOME = D:\Java\jdk1.6.0_06
```

- ORACLE\_SID

For example,

Unix-based systems:

```
ORACLE_SID = slc12ltk
```

Windows-based systems:

```
ORACLE_SID = slc12ltk
```

**Note:** You can verify an environment variable setting by using the echo command. For example,

Unix-based systems:

```
echo $ORACLE_DB_HOME
```

Windows-based systems:

```
echo %ORACLE_DB_HOME%
```

5. Copy the pas.zip file to the location that you have set in your MW\_ORA\_HOME environment variable.
6. Merge the applications, db, soa, and scripts directories from the extracted pas.zip within the existing pas folder. The atglite and odi directories must remain since the deployed libraries refer to the jars inside that directory. There are no changes to the files in adapters, atglite, odi, soa, and templates directories.

Unzip the pas.zip file using the following command:

```
unzip -o pas.zip
```

7. Take a backup of the OPSM data. In particular, take a backup of any custom code in the package specification and body of the PAS\_SERIAL\_GEN and PAS\_SERIAL\_VAL database packages.
8. Move the jar utility from your JDK home folder into the search path. This is needed because the install script uses the jar utility to extract the files and modify the connection parameters.
9. If you are using a 12c Database please execute this command using the sys user before the upgrade:  

```
GRANT INHERIT PRIVILEGES ON USER SYS TO XDBPM;
```
10. Navigate to \$MW\_HOME/user\_projects/domains/base\_domain/bin, and startup the WebLogic server and the managed servers.

On Unix-based systems use the following commands:

```
./startWebLogic.sh
./startManagedWebLogic.sh soa_server1
./startManagedWebLogic.sh pas_server1
```

On Windows-based systems use the following commands:

```
startWebLogic.cmd
startManagedWebLogic.cmd soa_server1
startManagedWebLogic.cmd pas_server1
```

11. Backup the user\_projects directory under the middleware home. This is needed because the upgrade script modifies the domain and if the upgrade fails for any reason, you will need this backup to restore the original domain.
12. Populate the values in properties file to ensure that a description of every property is available before the property is referred to. The appropriate parameters are described in the comments of the properties file. The properties file is located in the MW\_ORA\_HOME/pas/scripts directory.

For Unix-based systems, use the pas\_install.properties file.

For Windows-based systems, use the pas\_install\_win.properties.file.

## Upgrade Tasks

1. Make sure that the admin server and the managed servers (for example, soa\_server1 and pas\_server1) are not running.
2. Navigate to the PAS script directory.  
For example, cd MW\_ORA\_HOME/pas/scripts
3. Execute the upgrade script to upgrade Oracle Pedigree and Serialization Manager.

For Unix-based systems, use the "pasMasterUpgrade12To21.py" script. Run the installation script using the following command:

```
$MW_ORA_HOME/common/bin/wlst.sh ./pasMasterUpgrade12To21.py
```

For Windows-based systems, use the "pasMasterUpgrade12To21Win.py" script. Run the installation script using the following command:

```
%MW_ORA_HOME%\common\bin\wlst.cmd pasMasterUpgrade12To21Win.py
```

Ensure that the terminal on which you are running the upgrade has sufficient scroll-back lines (for example, 5000) to capture all the output from the install activities. This enables you to review all of the upgrade activities later.

**Important:** The upgrade python script will run database upgrade

scripts. Please observe the console output and check if there are errors while running of database scripts and continue with the upgradation.

During the upgrade, you are prompted to answer this question after each SQL script is executed: Are there any errors in script? y/n. If you answer no, the upgrade script continues and assumes there are no errors in the script execution so far. If you answer yes, the upgrade script quits and assumes there are errors in the script execution.

In the case of script execution failure, after you have corrected the errors, comment the sql script files in the upgrade script which have already run successfully before re-running the upgrade script.

**Note:** If you see errors similar to below while removing soa temporary files, these errors can be ignored and you may continue with the upgrade:

```
rm: cannot unlink entry "C:
/Oracle/MIDDLE~1/user_projects/domains/base_domain/servers/so
a_server1/tmp/_WL_user/soa-infra/y2559h/war/WEB-
INF/default/PasTransmitSerialsViaFileComposite!1.0_soa_7c78c21f-
f0d9-453b-91d3-
04fdaaa5dcd3/transmitserialsviafile_client_ep/TransmitSerialsViaFi
le.wsdl": The system cannot find the path specified.
```

The upgrade script attempts to start the Admin Server. It tests in a loop if the server is up before it continues. If you installed your WebLogic Server in Production Mode, the Admin server requires a userid and password to start which the script does not set for security reasons. In this case, you must start a new terminal window to start the Admin Server. After the script detects the server has started, it will continue.

After the Admin Server has been started, the upgrade script will prompt you to start up the managed servers (for example, soa\_server1 and pas\_server1). To do so, make sure the environment variables are set as described in the Pre-Upgrade Tasks, page 5-1 section, then navigate to MW\_HOME/user\_projects/domains/base\_domain/bin. Using separate terminal windows, startup the PAS and SOA managed servers. Keeping in mind your actual managed server names may be different, use the following commands as examples:

For Unix-based systems:

- `sh startManagedWebLogic.sh soa_server1`
- `sh startManagedWebLogic.sh pas_server1`

For Windows-based systems:

- `startManagedWebLogic.cmd soa_server1`
- `startManagedWebLogic.cmd pas_server1`

After the managed servers are started, press enter in the first terminal where the "pasMasterUpgrade12To21.py" script or "pasMasterUpgrade12To21Win.py" script is run to continue processing the install script.

4. The OPSM installation output is captured in the scroll buffer of the terminal on which you run the installation. Scroll through the buffer to check for errors. The following warnings, if seen, can be ignored:
  - WARNING: Failed to create ConnectionDBean for {http://xmlns.oracle.com/oracle/apps/fnd/applcore/flex/deployment/service/model/} FlexDeploymentService
  - WARNING: Failed to create ConnectionDBean for AtkHelpPortalService
5. After the upgrade script has completed successfully, you must restart the Admin Server and managed servers (for example, soa\_server1 and pas\_server1) for changes made by the upgrade script to take effect.

## Post Upgrade Tasks

### Apply the 2.1.0.1.0 Patch

Download the OPSM 2.1.0.1.0 patch (25908128) available on My Oracle Support (<https://support.oracle.com/>) [<https://support.oracle.com/>] and apply the patch.

If you are upgrading from 1.2.0.19.0, you must also apply the 2.1.0.1.0 patch after upgrading to 2.1.0.0.0. You cannot stay on 2.1.0.0.0. Failure to do so will result in loss of functionality.

### Correct Contact and User Information

1. The data in the PAS\_S\_LOCATION\_CONTACTS table and PAS\_EPC\_USERS table needs to be cleaned up by populating missing information and correcting inconsistent information.

The PAS\_S\_LOCATION\_CONTACTS table must not have any rows with a null contact\_user\_id. Run the following SQL statement to identify rows with a null contact\_user\_id and populate the contact\_user\_id where ever it is null. Since this is also used for digital signatures, if that is enabled, you may want to give the WebLogic username that the contact has or will have in the future.

```
select * from PAS_S_LOCATION_CONTACTS where contact_user_id is null
```

**Important:** This sql statement must be run while connected to the database as the PAS user.

2. If there are rows with duplicate `contact_user_id` values in the `PAS_S_LOCATION_CONTACTS` table, all the other user related information must be identical for these rows. The script "`checkLocationContactUserInfoConsistent.sql`" displays which records are inconsistent. This script is located in the `pas/db` directory. Update the rows so that they are consistent.

**Important:** This script must be run while connected to the database as the PAS user.

3. If the same username is present in both the `PAS_EPC_USERS` and `PAS_S_LOCATION_CONTACTS` tables, the user data in the two tables must be consistent. Run "`checkLocationContactUserInfoConsistentWithEpcUsers.sql`" to identify the inconsistent rows. Update the rows so that they are consistent.

**Important:** This script must be run while connected to the database as the PAS user.

4. The "`central_user_data_migration.sql`" script performs the same verification as in the previous three steps (Step 1 through Step 3). If it fails, the script will exit with an error message and will not perform the migration. If it passes, it will migrate data from the `PAS_S_LOCATION_CONTACTS` and `PAS_EPC_USERS` tables into the `PAS_S_USERS` table. It updates the `USER_ID` column in `PAS_S_LOCATION_CONTACTS` table with the value in the `USER_ID` column in the `PAS_S_USERS` table. It populates the `PAS_EPC_USER_POLICY_ASSOC` table based on the data in the `PAS_EPC_USERS` table.

**Important:** This script must be run while connected to the database as the PAS user.

## Migrate Locations to Packs Table

Migrate the locations to the packs table by running the "`upgradeInstall_step3_fepasSchema_migrateLocationToPacksTable.sql`" SQL script provided from within the `MW_ORA_HOME/pas/db` folder.

**Important:** This script must be run while connected to the database as the PAS user.

## Verify Servers are Running

Refer to the Post Installation Tasks, page 3-21 section to verify that the servers are running.

## Configure Security for the Application and Services

Refer to the *Oracle Pedigree and Serialization Manager Security Guide* for the new jobs, duties, application roles, and privileges introduced in 2.1.0.0.0.

## Load Existing OPSM Templates into Oracle BI Publisher 11g

If you decide to use Oracle BI Publisher 11g, follow the instructions in the *Installing Oracle Pedigree and Serialization Manager 2.0.0.0.0 chapter*, Post Installation Tasks, page 3-21 section, Load Existing OPSM Templates Into Oracle BI Publisher 11g.

## Restore Back Up of Custom PLSQL Procedures

Restore the backup of the custom code in the PAS\_SERIAL\_GEN and PAS\_SERIAL\_VAL packages.

## Re-Upgrade Tasks

In the event that an upgrade fails, follow the procedure below to perform a new upgrade. Keep in mind that your actual managed server names may differ from those used in the sample commands listed below.

1. Make sure that the environment variables are set as described in Pre-Upgrade Tasks, page 5-1, and that you are in the DOMAIN\_HOME (typically MW\_HOME/user\_projects/domains/base\_domain).

2. Stop the SOA Server.

Go to DOMAIN\_HOME/bin and issue the following command at the prompt:

For Unix-based systems:

```
sh stopManagedWebLogic.sh soa_server1 t3://<servername>:<adminport>
```

For example:

```
sh stopManagedWebLogic.sh soa_server1 t3://host.oracle.com:7001
```

For Windows-based systems:

```
stopManagedWebLogic.cmd soa_server1 t3://<servername>:<adminport>
```

For example:

```
stopManagedWebLogic.cmd soa_server1 t3://host.oracle.com:7001
```

3. Stop the PAS Server.

Go to DOMAIN\_HOME/bin and issue the following command at the prompt:

For Unix-based systems:

```
sh stopManagedWebLogic.sh pas_server1 t3://<servername>:<adminport>
```

For example:

```
sh stopManagedWebLogic.sh pas_server1 t3://host.oracle.com:7001
```

For Windows-based systems:

```
stopManagedWebLogic.cmd pas_server1 t3://<servername>:<adminport>
```

For example:

```
stopManagedWebLogic.cmd pas_server1 t3://host.oracle.com:7001
```

4. Stop the Admin Server.

Go to DOMAIN\_HOME/bin and issue the following command at the prompt:

For Unix-based systems:

```
sh stopWebLogic.sh
```

For Windows-based systems:

```
stopWebLogic.cmd
```

5. Perform cleanup tasks:

1. Clean up the MW\_HOME/user\_projects directory and restore from the backup taken before the initial installation.

2. Delete the pas directory under MW\_ORA\_HOME.

Use dbUpgrade = no in the properties file to prevent repeated upgrade of the database if the database upgrade scripts were already successfully executed.

6. Perform step 4 from Pre-Upgrade Tasks, page 5-1.

7. Perform step 6 from Pre-Upgrade Tasks, page 5-1.

8. Perform a new upgrade.

Follow the steps for a new upgrade starting with step 1 under the section Upgrade Tasks, page 5-6.



---

# Upgrading Oracle Pedigree and Serialization Manager from 2.0.0.3.0 to 2.1.0.0.0

This chapter lists the steps for upgrading Oracle Pedigree and Serialization Manager (OPSM) from 2.0.0.3.0 to 2.1.0.0.0.

This chapter covers the following topics:

- Pre-Upgrade Tasks
- Upgrade Tasks
- Post Upgrade Tasks
- Re-Upgrade Tasks

## Pre-Upgrade Tasks

1. Shutdown the admin server and the managed servers (for example, soa\_server1 and pas\_server1).
2. Upgrade to Oracle Database 12c Release 1 (12.1.0.1.0) 64-bit Production Database, Enterprise Edition, if needed.

Upgrading the database is NOT required for Oracle Pedigree and Serialization Manager Release 2.1.0.0.0.

**Important:** When installing Oracle Database 12c Release 1, choose Advanced Install, then in the following screens, deselect the *Create as Container database* option and select the AL32UTF8 character set.

3. Download and apply the latest patches from Release 2.0 from [support.oracle.com](http://support.oracle.com):

Patch	Part Number/Patch Number	Notes
OPSM 2.0.0.0.0	20492590	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 2.0.0.0.1	21153372	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 2.0.0.0.2	21221172	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 2.0.0.1.0	22084249	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 2.0.0.2.0	22544779	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 2.0.0.3.0	23632063	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]

4. Set the following environment variables:
  - MW\_HOME to your Middleware Home.  
For example, MW\_HOME=/slot/ems2383/oracle/mwhome
  - MW\_ORA\_HOME to your SOA HOME.  
For example, MW\_ORA\_HOME=\$MW\_HOME/Oracle\_SOA1
  - ORACLE\_DB\_HOME to your database home.  
For example, ORACLE\_DB\_HOME=/slot/app/product/db\_home
  - Set the PATH variable to include \$ORACLE\_DB\_HOME/bin.  
For example, export PATH=\$ORACLE\_DB\_HOME/bin:\$PATH
5. Copy the pas.zip file to the location that you have set in your MW\_ORA\_HOME environment variable.
6. Merge the applications, db, soa, and scripts directories from the extracted pas.zip within the existing pas folder. The atglite and odi directories must remain since the deployed libraries refer to the jars inside that directory. There are no changes to the files in adapters, atglite, odi, soa, and templates directories.

Unzip the pas.zip file using the following command:

```
unzip -o pas.zip
```

7. Take a backup of the OPSM data. In particular, take a backup of any custom code in the package specification and body of the PAS\_SERIAL\_GEN and PAS\_SERIAL\_VAL database packages.
8. Move the jar utility from your JDK home folder into the search path. This is needed because the install script uses the jar utility to extract the files and modify the connection parameters.
9. If you are using a 12c Database please execute this command using the sys user before the upgrade:  

```
GRANT INHERIT PRIVILEGES ON USER SYS TO XDBPM;
```
10. Backup the user\_projects directory under the middleware home. This is needed because the upgrade script modifies the domain and if the upgrade fails for any reason, you will need this backup to restore the original domain.
11. Populate the values in pas\_install.properties to ensure that a description of every property is available before the property is referred to. The appropriate parameters are described in the comments of the pas\_install.properties file. The pas\_install.properties file is located in the MW\_ORA\_HOME/pas/scripts directory.

## Upgrade Tasks

1. Make sure that the admin server and the managed servers (for example, soa\_server1 and pas\_server1) are not running.
2. Navigate to the PAS script directory.  
For example, `cd MW_ORA_HOME/pas/scripts`
3. Execute the upgrade script to upgrade Oracle Pedigree and Serialization Manager.

For Unix-based installs, use the "pasMasterUpgrade20To21.py" script. Run the installation script using the following command:

```
$MW_ORA_HOME/common/bin/wlst.sh ./pasMasterUpgrade20To21.py
```

Ensure that the terminal on which you are running the upgrade has sufficient scroll-back lines (for example, 5000) to capture all the output from the install activities. This enables you to review all of the upgrade activities later.

**Important:** The upgrade python script will run database upgrade scripts. Please observe the console output and check if there are errors while running of database scripts and continue with the

upgradation.

During the upgrade, you are prompted to answer this question after each SQL script is executed: Are there any errors in script? y/n. If you answer no, the upgrade script continues and assumes there are no errors in the script execution so far. If you answer yes, the upgrade script quits and assumes there are errors in the script execution.

In the case of script execution failure, after you have corrected the errors, comment the sql script files in the upgrade script which have already run successfully before re-running the upgrade script.

**Note:** If you see errors similar to below while removing soa temporary files, these errors can be ignored and you may continue with the upgrade:

```
rm: cannot unlink entry "C:  
/Oracle/MIDDLE~1/user_projects/domains/base_domain/servers/so  
a_server1/tmp/_WL_user/soa-infra/y2559h/war/WEB-  
INF/default/PasTransmitSerialsViaFileComposite!1.0_soa_7c78c21f-  
f0d9-453b-91d3-  
04fdaaa5dcd3/transmitserialsviafile_client_ep/TransmitSerialsViaFi  
le.wsdl": The system cannot find the path specified.
```

The upgrade script attempts to start the Admin Server. It tests in a loop if the server is up before it continues. If you installed your WebLogic Server in Production Mode, the Admin server requires a userid and password to start which the script does not set for security reasons. In this case, you must start a new terminal window to start the Admin Server. After the script detects the server has started, it will continue.

After the Admin Server has been started, the upgrade script will prompt you to start up the managed servers (for example, soa\_server1 and pas\_server1). To do so, make sure the environment variables are set as described in the Pre-Upgrade Tasks, page 6-1 section, then navigate to MW\_HOME/user\_projects/domains/base\_domain/bin. Using separate terminal windows, startup the PAS and SOA managed servers. Keeping in mind your actual managed server names may be different, use the following commands as examples:

For Unix-based installs:

- `sh startManagedWebLogic.sh soa_server1`
- `sh startManagedWebLogic.sh pas_server1`

After the managed servers are started, press enter in the first terminal where the . /pasMasterUpgrade20To21.py script is run to continue processing the install script.

4. The OPSM installation output is captured in the scroll buffer of the terminal on which you run the installation. Scroll through the buffer to check for errors. The following warnings, if seen, can be ignored:
  - WARNING: Failed to create ConnectionDBean for {http://xmlns.oracle.com/oracle/apps/fnd/applcore/flex/deployment/service/model/} FlexDeploymentService
  - WARNING: Failed to create ConnectionDBean for AtkHelpPortalService
5. After the upgrade script has completed successfully, you must restart the Admin Server and managed servers (for example, soa\_server1 and pas\_server1) for changes made by the upgrade script to take effect.

## Post Upgrade Tasks

### Verify Servers are Running

Refer to the Post Installation Tasks, page 3-21 section to verify that the servers are running.

### Configure Security for the Application and Services

Refer to the *Oracle Pedigree and Serialization Manager Security Guide* for the new jobs, duties, application roles, and privileges introduced in 2.0.0.0.0.

### Load Existing OPSM Templates into Oracle BI Publisher 11g

If you decide to use Oracle BI Publisher 11g, follow the instructions in the *Installing Oracle Pedigree and Serialization Manager 2.0.0.0.0 chapter*, Post Installation Tasks, page 3-21 section, Load Existing OPSM Templates Into Oracle BI Publisher 11g.

### Restore Back Up of Custom PLSQL Procedures

Restore the backup of the custom code in the PAS\_SERIAL\_GEN and PAS\_SERIAL\_VAL packages.

## Re-Upgrade Tasks

In the event that an upgrade fails, follow the procedure below to perform a new upgrade. Keep in mind that your actual managed server names may differ from those used in the sample commands listed below.

1. Make sure that the environment variables are set as described in Pre-Upgrade

Tasks, page 6-1, and that you are in the DOMAIN\_HOME (typically MW\_HOME/user\_projects/domains/base\_domain).

2. Stop the SOA Server.

Go to DOMAIN\_HOME/bin and issue the following command at the prompt:

For Unix-based installs:

```
sh stopManagedWebLogic.sh soa_server1 t3://<servername>:<adminport>
```

For example:

```
sh stopManagedWebLogic.sh soa_server1 t3://host.oracle.com:7001
```

3. Stop the PAS Server.

Go to DOMAIN\_HOME/bin and issue the following command at the prompt:

For Unix-based installs:

```
sh stopManagedWebLogic.sh pas_server1 t3://<servername>:<adminport>
```

For example:

```
sh stopManagedWebLogic.sh pas_server1 t3://host.oracle.com:7001
```

4. Stop the Admin Server.

Go to DOMAIN\_HOME/bin and issue the following command at the prompt:

For Unix-based installs:

```
sh stopWebLogic.sh
```

5. Perform cleanup tasks:

1. Clean up the MW\_HOME/user\_projects directory and restore from the backup taken before the initial installation.
2. Delete the pas directory under MW\_ORA\_HOME.

Use dbUpgrade = no in the properties file to prevent repeated upgrade of the database if the database upgrade scripts were already successfully executed.

6. Perform step 4 from Pre-Upgrade Tasks, page 6-1.

7. Perform step 6 from Pre-Upgrade Tasks, page 6-1.

8. Perform step 10 from Pre-Upgrade Tasks, page 6-1.

9. Perform step 11 from Pre-Upgrade Tasks, page 6-1.

10. Perform a new upgrade.

Follow the steps for a new upgrade starting with step 1 under the section Upgrade

Tasks, page 6-3.



---

# Upgrading Oracle Pedigree and Serialization Manager from 2.1.0.1.0 to 2.2.0.0.0

This chapter lists the steps for upgrading Oracle Pedigree and Serialization Manager (OPSM) from 2.1.0.1.0 to 2.2.0.0.0.

This chapter covers the following topics:

- Pre-Upgrade Tasks
- Upgrade Tasks
- Post Upgrade Tasks
- Re-Upgrade Tasks

## Pre-Upgrade Tasks

1. Shutdown the admin server and the managed servers (for example, soa\_server1 and pas\_server2).
2. Upgrade to Oracle Database 12c Release 1 (12.1.0.1.0) 64-bit Production Database, Enterprise Edition, if needed.

Upgrading the database is NOT required for Oracle Pedigree and Serialization Manager Release 2.2.0.0.0.

**Important:** When installing Oracle Database 12c Release 1, choose Advanced Install, then in the following screens, deselect the *Create as Container database* option and select the AL32UTF8 character set.

3. Download and apply the latest patches from Release 2.0 from [support.oracle.com](http://support.oracle.com):

Patch	Part Number/Patch Number	Notes
OPSM 2.1.0.0.0	25814969	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]
OPSM 2.1.0.1.0	25908128	Available on My Oracle Support ( <a href="https://support.oracle.com/">https://support.oracle.com/</a> ) [ <a href="https://support.oracle.com/">https://support.oracle.com/</a> ]

4. Set the following environment variables:

- MW\_HOME to your Middleware Home  
 For example,  
 Unix-based systems:  
`MW_HOME=/slot/ems2383/oracle/mwhome`  
 Windows-based systems:  
`MW_HOME = D:\scratch\opsm_install\Oracle\Middleware`
- MW\_ORA\_HOME to your SOA HOME  
 For example,  
 Unix-based systems:  
`MW_ORA_HOME=$MW_HOME/Oracle_SOA1`  
 Windows-based systems:  
`MW_ORA_HOME=%MW_HOME%\Oracle_SOA1`
- ORACLE\_DB\_HOME variable to include ORACLE\_HOME  
 For example,  
 Unix-based systems:  
`ORACLE_DB_HOME = /scratch/opsm_install/app/oracle/product/11.2.0/dbhome_1`  
 Windows-based systems:  
`ORACLE_DB_HOME =D:\scratch\opsm_install\app\oracle\product\11.2.0\dbhome_1`
- PATH variable to include ORACLE\_HOME\bin  
 For example,

Unix-based systems:

```
PATH=$ORACLE_DB_HOME/bin:$PATH
```

Windows-based systems:

```
PATH=%ORACLE_HOME%\bin;%PATH%
```

- ORACLE\_HOME

For example,

Unix-based systems:

```
ORACLE_HOME= /scratch/opsm_install/app/oracle/product/11.2.0/dbhome_1
```

Windows-based systems:

```
ORACLE_HOME= D:\scratch\opsm_install\app\oracle\product\11.2.0\dbhome_1
```

- JAVA\_HOME variable to your Java installed directory

For example,

Unix-based systems:

```
JAVA_HOME = /scratch/opsm_install/Java/jdk1.6.0_06
```

Windows-based systems:

```
JAVA_HOME = D:\Java\jdk1.6.0_06
```

- ORACLE\_SID

For example,

Unix-based systems:

```
ORACLE_SID = slc12ltk
```

Windows-based systems:

```
ORACLE_SID = slc12ltk
```

**Note:** You can verify an environment variable setting by using the echo command. For example,

Unix-based systems:

```
echo $ORACLE_DB_HOME
```

Windows-based systems:

```
echo %ORACLE_DB_HOME%
```

5. Copy the pas.zip file to the location that you have set in your MW\_ORA\_HOME

environment variable.

6. Merge the applications, db, bipublisher, and scripts directories from the extracted pas.zip within the existing pas folder. The atglite and odi directories must remain since the deployed libraries refer to the jars inside that directory. There are no changes to the files in adapters, atglite, odi, soa, and templates directories.

Unzip the pas.zip file using the following command:

```
unzip -o pas.zip
```

7. Take a backup of the OPSM data. In particular, take a backup of any custom code in the package specification and body of the PAS\_SERIAL\_GEN and PAS\_SERIAL\_VAL database packages.
8. Move the jar utility from your JDK home folder into the search path. This is needed because the install script uses the jar utility to extract the files and modify the connection parameters.
9. If you are using a 12c Database please execute this command using the sys user before the upgrade:  

```
GRANT INHERIT PRIVILEGES ON USER SYS TO XDBPM;
```
10. Backup the user\_projects directory under the middleware home. This is needed because the upgrade script modifies the domain and if the upgrade fails for any reason, you will need this backup to restore the original domain.
11. Populate the values in properties file to ensure that a description of every property is available before the property is referred to. The appropriate parameters are described in the comments of the properties file. The properties file is located in the MW\_ORA\_HOME/pas/scripts directory.

For Unix-based systems, use the pas\_install.properties file.

For Windows-based systems, use the pas\_install\_win.properties.file.

## Upgrade Tasks

1. Make sure that the admin server and the managed servers (for example, soa\_server1 and pas\_server1) are not running.
2. Navigate to the PAS script directory.  
For example, cd MW\_ORA\_HOME/pas/scripts
3. Execute the upgrade script to upgrade Oracle Pedigree and Serialization Manager.  
For Unix-based systems, use the "pasMasterUpgrade21To22.py" script. Run the installation script using the following command:

```
$MW_ORA_HOME/common/bin/wlst.sh ./pasMasterUpgrade21To22.py
```

For Windows-based systems, use the "pasMasterUpgrade21To22Win.py" script. Run the installation script using the following command:

```
%MW_ORA_HOME%\common\bin\wlst.cmd pasMasterUpgrade21To22Win.py
```

Ensure that the terminal on which you are running the upgrade has sufficient scroll-back lines (for example, 5000) to capture all the output from the install activities. This enables you to review all of the upgrade activities later.

**Important:** The upgrade python script will run database upgrade scripts. Please observe the console output and check if there are errors while running of database scripts and continue with the upgradation.

During the upgrade, you are prompted to answer this question after each SQL script is executed: Are there any errors in script? y/n. If you answer no, the upgrade script continues and assumes there are no errors in the script execution so far. If you answer yes, the upgrade script quits and assumes there are errors in the script execution.

In the case of script execution failure, after you have corrected the errors, comment the sql script files in the upgrade script which have already run successfully before re-running the upgrade script.

**Note:** If you see errors similar to below while removing soa temporary files, these errors can be ignored and you may continue with the upgrade:

```
rm: cannot unlink entry "C:  
/Oracle/MIDDLE~1/user_projects/domains/base_domain/servers/so  
a_server1/tmp/_WL_user/soa-infra/y2559h/war/WEB-  
INF/default/PasTransmitSerialsViaFileComposite!1.0_soa_7c78c21f-  
f0d9-453b-91d3-  
04fdaaa5dcd3/transmitserialsviafile_client_ep/TransmitSerialsViaFi  
le.wsdl": The system cannot find the path specified.
```

The upgrade script attempts to start the Admin Server. It tests in a loop if the server is up before it continues. If you installed your WebLogic Server in Production Mode, the Admin server requires a userid and password to start which the script does not set for security reasons. In this case, you must start a new terminal window to start the Admin Server. After the script detects the server has started, it will continue.

After the Admin Server has been started, the upgrade script will prompt you to start up the managed servers (for example, soa\_server1 and pas\_server1). To do so, make sure the environment variables are set as described in the Pre-Upgrade Tasks, page 7-1 section, then navigate to

MW\_HOME/user\_projects/domains/base\_domain/bin. Using separate terminal windows, startup the PAS and SOA managed servers. Keeping in mind your actual managed server names may be different, use the following commands as examples:

For Unix-based systems:

- `sh startManagedWebLogic.sh soa_server1`
- `sh startManagedWebLogic.sh pas_server1`

On Windows-based systems use the following commands:

- `startManagedWebLogic.cmd soa_server1`
- `startManagedWebLogic.cmd pas_server1`

After the managed servers are started, press enter in the first terminal where the "pasMasterUpgrade21To22.py" script or "pasMasterUpgrade21To22Win.py" script is run to continue processing the install script.

4. The OPSM installation output is captured in the scroll buffer of the terminal on which you run the installation. Scroll through the buffer to check for errors. The following warnings, if seen, can be ignored:
  - WARNING: Failed to create ConnectionDBean for {http://xmlns.oracle.com/oracle/apps/fnd/applcore/flex/deployment/service/model/} FlexDeploymentService
  - WARNING: Failed to create ConnectionDBean for AtkHelpPortalService
5. After the upgrade script has completed successfully, you must restart the Admin Server and managed servers (for example, soa\_server1 and pas\_server1) for changes made by the upgrade script to take effect.

## Post Upgrade Tasks

### Verify Servers are Running

Refer to the Post Installation Tasks, page 3-21 section to verify that the servers are running.

### Configure Security for the Application and Services

Refer to the *Oracle Pedigree and Serialization Manager Security Guide* for the new jobs, duties, application roles, and privileges introduced in 2.0.0.0.0.

## Load New OPSM Templates into Oracle BI Publisher 11g

If you are using Oracle BI Publisher 11g, follow the instructions below to load new OPSM templates into Oracle BI Publisher 11g:

### To Load OPSM Templates into Oracle BI Publisher:

1. Create a user named Administrator.
2. Login to the Oracle BI Publisher using the Administrator user.
3. Select the Catalog tab.
4. Navigate to My Folders.
5. Create a folder named *OPSM* (If it is not present).
6. Upload the Pedigree.xdoz and Pedigree.xdmz files from MW\_ORA\_HOME/pas/bipublisher to the folder.
7. Edit the Pedigree data model.
8. Click the Manage Private Data Sources button.
9. Click the Add Data Source button and create a data source pointing to the OPSM database.
10. Under the Data Model tree on the right, open the Data Sets node and click the Pedigree Data Set.
11. Click the Edit icon on the toolbar.
12. Select the Data Source pointing to the OPSM database.
13. Click the Home link on the top right.
14. Click Open on the Pedigree report to view the report.

You can view and download the reports in the desired format.

## Restore Back Up of Custom PLSQL Procedures

Restore the backup of the custom code in the PAS\_SERIAL\_GEN and PAS\_SERIAL\_VAL packages.

## Re-Upgrade Tasks

In the event that an upgrade fails, follow the procedure below to perform a new upgrade. Keep in mind that your actual managed server names may differ from those used in the sample commands listed below.

1. Make sure that the environment variables are set as described in Pre-Upgrade Tasks, page 7-1, and that you are in the DOMAIN\_HOME (typically MW\_HOME/user\_projects/domains/base\_domain).

2. Stop the SOA Server.

Go to DOMAIN\_HOME/bin and issue the following command at the prompt:

For Unix-based systems:

```
sh stopManagedWebLogic.sh soa_server1 t3://<servername>:<adminport>
```

For example:

```
sh stopManagedWebLogic.sh soa_server1 t3://host.oracle.com:7001
```

For Windows-based systems:

```
stopManagedWebLogic.cmd soa_server1 t3://<servername>:<adminport>
```

For example:

```
stopManagedWebLogic.cmd soa_server1 t3://host.oracle.com:7001
```

3. Stop the PAS Server.

Go to DOMAIN\_HOME/bin and issue the following command at the prompt:

For Unix-based systems:

```
sh stopManagedWebLogic.sh pas_server1 t3://<servername>:<adminport>
```

For example:

```
sh stopManagedWebLogic.sh pas_server1 t3://host.oracle.com:7001
```

For Windows-based systems:

```
stopManagedWebLogic.cmd pas_server1 t3://<servername>:<adminport>
```

For example:

```
stopManagedWebLogic.cmd pas_server1 t3://host.oracle.com:7001
```

4. Stop the Admin Server.

Go to DOMAIN\_HOME/bin and issue the following command at the prompt:

For Unix-based systems:

```
sh stopWebLogic.sh
```

For Windows-based systems:

```
stopWebLogic.cmd
```

5. Perform cleanup tasks:
  1. Clean up the MW\_HOME/user\_projects directory and restore from the backup taken before the initial installation.
  2. Delete the pas directory under MW\_ORA\_HOME.

Use dbUpgrade = no in the properties file to prevent repeated upgrade of the database if the database upgrade scripts were already successfully executed.

6. Perform step 4 from Pre-Upgrade Tasks, page 7-1.
7. Perform step 6 from Pre-Upgrade Tasks, page 7-1.
8. Perform step 10 from Pre-Upgrade Tasks, page 7-1.
9. Perform step 11 from Pre-Upgrade Tasks, page 7-1.
10. Perform a new upgrade.

Follow the steps for a new upgrade starting with step 1 under the section Upgrade Tasks, page 7-4.



---

# Application Tuning and Troubleshooting Oracle Pedigree and Serialization Manager 2.0, 2.1, and 2.2

This chapter covers the following topics:

- Tuning
- General Troubleshooting
- Application Troubleshooting

## Tuning

### Prerequisites

- Before you begin, ensure that the operating system is running.

#### **Application Tuning:**

When running the applications in a normal production environment, it is highly recommended that logging is configured such that only the most critical issues are logged. This can be accomplished by performing the following:

1. Login to Oracle Enterprise Manager.
2. Select PasSerializationManager under the Application Deployments folder.
3. Using the Application Deployment drop down, select Logs > Log Configuration.
4. On the Log Levels tab, change the logging level to INCIDENT\_ERROR for the Root Logger node.

5. Click the Apply button to accept the changes.
6. Expand the Root Logger node, and verify the logging level for the oracle node is also set to INCIDENT\_ERROR. If it is not, update it, then click the Apply button.
7. Repeat steps 2-6 for the PasSerialService\_SerialServices, PasTransactionsService\_TransactionsServices, PasSetupServices, and PasEpcServices applications.

**Note:** If additional logging is necessary to help diagnose issues, a more detailed logging level (for example, FINEST) can be used to capture additional logging information.

### **Operating System Tuning:**

Follow this procedure to tune the operating system:

1. Navigate to the directory MW\_HOME/user\_projects/domains/base\_domain/bin
2. Open the file setSOADomainEnv.sh
3. Make the following changes:
  - PORT\_MEM\_ARGS="-Xms512m -Xmx2048m"
  - PORT\_MEM\_ARGS="{PORT\_MEM\_ARGS} -XX:PermSize=256m -XX:MaxPermSize=1024m"
4. Restart the WebLogic servers.

### **Database Tuning:**

Follow this procedure to tune the database:

1. Login as an Oracle user with sysdba privileges.
2. Enter the following commands:
  - **SQL> alter system set processes=5000 scope=spfile;**
  - **SQL> alter system set sessions=5000 scope=spfile;**
  - **SQL> alter system set open\_cursors=3000 scope=spfile;**
3. Restart the database.

## General Troubleshooting

The following tools are available for troubleshooting:

- Use the WebLogic Server Console to:
  - Manage system resources such as, increasing the connection pool of JDBC DataSource.
  - Manage users and Enterprise roles.
- Use the Enterprise Manager console to:
  - Check the overall health of the system.
  - Check the health of the composites.
  - Manage application policies.
  - Manage OWSM policies.
- Use the database console to:
  - Verify if the DB objects were created properly.
  - Verify if seeded data was inserted properly.
- View the following log files:
  - AdminServer Log:  
MW\_HOME/user\_projects/domains/<domain>/servers/AdminServer/logs/AdminServer.log
  - SOAServer Log:  
MW\_HOME/user\_projects/domains/<domain>/servers/soa\_server1/logs/soa\_server1.log
  - PAS Server Log:  
MW\_HOME/user\_projects/domains/<domain>/servers/pas\_server1/logs/pas\_server1.log

## Application Troubleshooting

Many of the most common issues encountered within the Oracle Pedigree and Serialization Manager (OPSM) product can be solved by verifying the various

components used by the application are running properly. The following is a list of key steps that can be performed to ensure these components are running and targeted appropriately.

**Note:** The following steps assume a typical install of OPSM.

### **Verify the WebLogic Server and Managed Servers are Running:**

1. Login to Oracle Enterprise Manager.
2. Verify the admin server, PAS server (for example, pas\_server1), and SOA server (for example, soa\_server1) are all up and running.

### **Verify the OPSM Application, Services and SOA Composites are Running:**

1. Login to Oracle Enterprise Manager.
2. Verify the following applications are up and running:
  1. PasSerializationManager(V2.x) - targeted to your PAS server
  2. PasSerialsServices\_SerialsServices(V2.x) - targeted to your SOA server
  3. PasTransactionsServices\_TransactionsServices(V2.x) - targeted to your SOA server
  4. PasEpcServices(V2.x) - targeted to your SOA server
  5. PasSetupServices(V2.x) - targeted to your SOA server
3. Verify the following SOA composites are up and running:
  1. PasCreateTransactionsComposite
  2. PasLotSynchronizationComposite
  3. PasSerialGenRequestComposite
  4. PasTransactionsComposite
  5. PasTransmitSerialsViaFileComposite
  6. PasTransmitSerialsViaWebComposite
  7. PasCaptureEpcisDocComposite

### **Verify Data Sources are Running and Targeted Appropriately:**

1. Login to Oracle WebLogic Administration Console.
2. Select Data Sources from under the Services node in the Navigation Tree.
3. On the Configuration tab, verify the following data sources are targeted correctly:
  1. EDNDataSource - targeted to your SOA and PAS servers (for example, soa\_server1 and pas\_server1)
  2. EDNLocalTxDataSource - targeted to your SOA and PAS servers (for example, soa\_server1 and pas\_server1)
  3. mds-opsm - targeted to the admin server and your SOA and PAS servers (for example, soa\_server1, and pas\_server1)
  4. pasDB - targeted to your SOA and PAS servers (for example, soa\_server1 and pas\_server)
  5. pasJMSDB - targeted to your SOA and PAS servers (for example, soa\_server1 and pas\_server1)
  6. SOADataSource - targeted to your SOA server (for example, soa\_server1)
  7. SOALocalTxDataSource - targeted to your SOA server (for example, soa\_server1)
4. Select the Monitoring tab.
5. Verify a value of *Running* exists in the State column for all the data sources.

### **Verify JRFWSAsync Components are Targeted Appropriately:**

1. Login to Oracle WebLogic Administration Console.
2. Select Persistent Stores from under the Services node in the Navigation Tree.
3. Verify the target for the JRFWSAsyncFileStore component is your SOA server.
4. Select JMS Servers from under the Services > Messaging node in the Navigation Tree.
5. Verify the target for the JRFWSAsyncJmsServer component is your SOA server.
6. Select JMS Modules from under the Services > Messaging node in the Navigation Tree.

7. Select the JRFWSAsynchJmsModule component.
8. Click the Targets tab and verify that your SOA server is the selected target.

**Important:** If any of the above mentioned JRFWSAsync components are not targeted as described, re-target them. It is normal to receive an error when attempting to re-target these components due to dependencies between them. It is safe to ignore the error because it will clear once all three components have been re-targeted.

---

# Setting Up WebLogic Components for Serial Destinations Oracle Pedigree and Serialization Manager 2.0, 2.1, and 2.2

This appendix provides the procedures to set up WebLogic components for serial destinations. Some components are only needed if you are using serial destinations functionality. Not all components will be needed. The set up of each component is based on the functionality being used. There is no problem if you set them all up, even if none of them are going to be used.

This appendix covers the following topics:

- Creating a JDeveloper Project
- Creating a JMS Queue
- Creating a JMS Destination
- Configuring a Web Service Adapter
- Creating a Web Service Destination
- Configuring a FTP Adapter
- Creating a File Exchange Destination

## Creating a JDeveloper Project

To support user-configurable setup of serial destinations, composites were created within Oracle SOA Suite to manage the business process flow of transmitting serials. Since these serial destinations are truly user-defined (for example, sending serials to a third-party FTP server, and so on), the SOA composites need to be modified to configure these destinations. To modify the SOA composites for transmitting serials, Oracle JDeveloper must be installed and the appropriate SOA projects extracted.

#### To Install Oracle JDeveloper:

1. If you do not already have Oracle JDeveloper installed, you can download a free copy at: <http://www.oracle.com/technetwork/developer-tools/jdev/overview/index.html>.
2. Use the Installation Guide for JDeveloper that is available through the above link to install Oracle JDeveloper.
3. Once the install has completed, run Oracle JDeveloper.
4. Use the Check for Updates wizard that is available under the Help menu to find and install the Oracle SOA Composite Editor extension. This extension is required to create and modify SOA composite applications.

#### To Unzip JARs:

1. Within the "pas.zip" file that is included as part of the Oracle Pedigree and Serialization Manager download, there is a file called **PasSerializationManagerSoa.zip**. Unzip this file and extract the following files to the same machine that includes the Oracle JDeveloper installation:
  1. sca\_PasTransmitSerialsViaFileComposite\_rev1.0.jar
  2. sca\_PasTransmitSerialsViaWebComposite\_rev1.0.jar

#### To Create an Application in JDeveloper:

1. Open Oracle JDeveloper.
2. Create a new SOA Application and name it: **PasSerializationManagerSoa**.
3. Create a new SOA project and name it: **PasTransmitSerialsViaFileComposite**.
4. Select Empty Composite.
5. Click on the new project.
6. Select File > Import.
7. Select SOA Archive into SOA Project.
8. Click Browse and select **sca\_PasTransmitSerialsViaFileComposite\_rev1.0.jar** that was unzipped.
9. Click Finish.
10. Repeat steps 3 - 9 for the **PasTransmitSerialsViaWebComposite**.

### To Create an Application Server in JDeveloper

To deploy from JDeveloper, an application server must be created. It records information about the standalone WebLogic server so the SOA composite can be deployed to it.

1. Open the Application Server Navigator.
2. Create a new Application Server:
  1. Standalone Server.
  2. Connection Name.
  3. Username and password.
  4. WebLogic Host Name, Port, and Domain.
  5. Test the connection. Make sure all tests are successful.
  6. Finish the creation of the application server.

## Creating a JMS Queue

If the method of communication for a serial destination is to be used with a JMS Queue, then a JMS Queue must be created.

### To Create a Database User for the JMS Persistent Store:

1. A new database user/schema should be created to support the persistence of JMS messages in the database. Create a new database user using the following SQL commands:

```
-- USER SQL
CREATE USER <databaseuser> IDENTIFIED BY <databasepassword>
DEFAULT TABLESPACE USERS
TEMPORARY TABLESPACE TEMP;

-- ROLES
GRANT "RESOURCE,CONNECT" TO <databaseuser>;

-- SYSTEM PRIVILEGES
GRANT UNLIMITED TABLESPACE TO <databaseuser>;
```

**Important:** Replace <databaseuser> and <databasepassword> with your own values.

### To Create a JMS Persistent Store Data Source:

1. Log onto the Oracle WebLogic Server Administration Console.

- Navigate to Services > Data Sources

### Oracle WebLogic Server Administration Console

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area displays the 'Summary of JDBC Data Sources' page. On the left, there is a 'Domain Structure' tree with 'Data Sources' selected under 'Services'. Below the tree is a 'How do I...' section with links for creating and deleting data sources. The main table lists existing data sources with the following columns: Name, Type, JNDI Name, and Targets. The table contains 10 entries, including generic data sources for various services like EDN, mds, OrasDPH, pas, SOA, and SOALocalTx.

Name	Type	JNDI Name	Targets
EDNDataSource	Generic	jdbc/EDNDataSource	soa_server1, pas_server1
EDNLocalTxDataSource	Generic	jdbc/EDNLocalTxDataSource	soa_server1, pas_server1
mds-opm	Generic	jdbc/mds/opm	AdminServer, soa_server1, pas_server1
mds-ovsm	Generic	jdbc/mds/ovsm	AdminServer, soa_server1
mds-soa	Generic	jdbc/mds/MDS_LocalTxDataSource	AdminServer, soa_server1
OrasDPHDataSource	Generic	jdbc/OrasDPHDataSource	soa_server1
pasDB	Generic	jdbc/pasDBDS	soa_server1, pas_server1
pasMSDB	Generic	jdbc/pasMSDBDS	soa_server1, pas_server1
SOADataSource	Generic	jdbc/SOADataSource	soa_server1
SOALocalTxDataSource	Generic	jdbc/SOALocalTxDataSource	soa_server1

- Click the New button and then click the Generic Data Source.
- Enter the following:
  - Enter **pas%BusinessObjectName%DB** as the Name for the Data Source.
  - Enter **jdbc/pas%BusinessObjectName%DBDS** as the JNDI Name.
  - Click the Next button.

## Oracle WebLogic Server Administration Console

The screenshot displays the Oracle WebLogic Server Administration Console interface. The main window is titled "Create a New JDBC Data Source". On the left, there is a "Domain Structure" tree showing the hierarchy: base\_domain > Environment > Deployments > Services > Data Sources. Below this is a "System Status" section showing the health of running servers: Failed (0), Critical (0), Overloaded (0), Warning (0), and OK (1). The main content area contains the following fields and options:

- JDBC Data Source Properties**: The following properties will be used to identify your new JDBC data source. \* Indicates required fields.
- What would you like to name your new JDBC data source?
  - Name:** pasOPSMJMSEExampleDB
- What JNDI name would you like to assign to your new JDBC Data Source?
  - JNDI Name:** jdbc/pasOPSMJMSEExampleDB
- What database type would you like to select?
  - Database Type:** Oracle

At the bottom of the console, there is a footer with the following text: "WebLogic Server Version: 12.1.3.0.0 Copyright © 1996, 2010, Oracle and/or its affiliates. All rights reserved. Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners."

5. Select the appropriate database driver, and then click the Next button.

## Oracle WebLogic Server Administration Console

The screenshot displays the Oracle WebLogic Server Administration Console interface. The main window title is "ORACLE WebLogic Server Administration Console". The top navigation bar includes "Home", "Log Out", "Preferences", "Record", and "Help". The user is logged in as "weblogic" and is connected to the "base\_domain".

The left sidebar contains several panels:

- Change Center:** "View changes and restarts" - Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.
- Domain Structure:** A tree view showing the hierarchy: base\_domain > Environment > Deployments > Services > Data Sources.
- How do I...:** A list of links: "Create JDBC generic data sources" and "Create LUR-enabled JDBC data sources".
- System Status:** "Health of Running Servers" - A bar chart showing server health: Failed (0), Critical (0), Overloaded (0), Warning (0), and OK (3).

The main content area shows the "Create a New JDBC Data Source" wizard. The "JDBC Data Source Properties" section is active, displaying the following information:

- Database:** Oracle
- Type:** Oracle's Driver (Thin) for Instance connections; Versions 9.0.1 and later

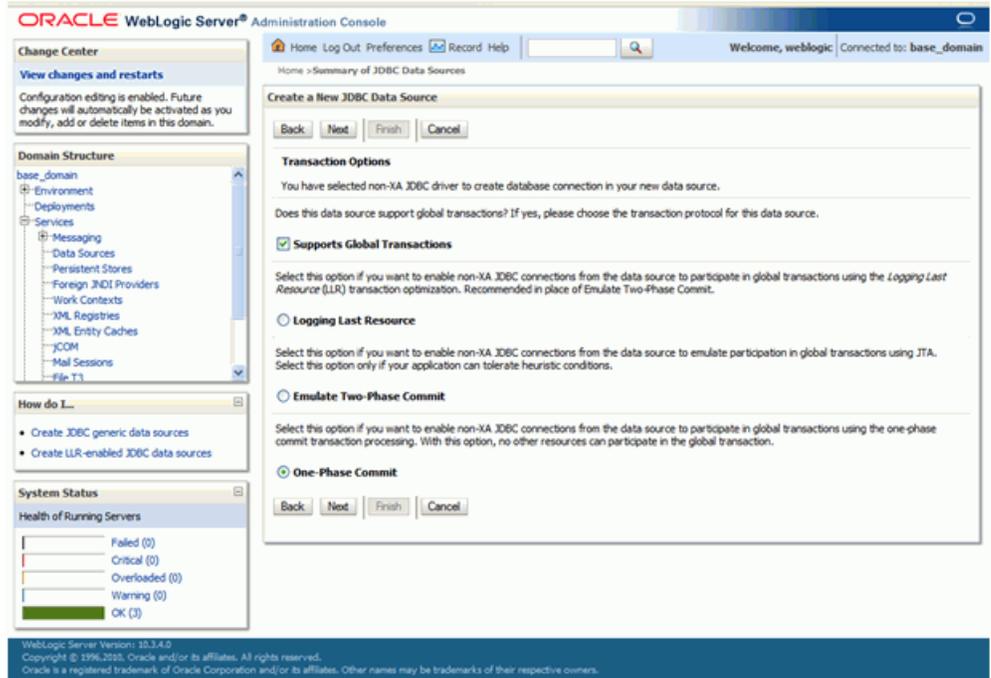
Buttons for "Back", "Next", "Finish", and "Cancel" are visible at the top and bottom of the wizard panel.

At the bottom of the console, the following text is displayed:

WebLogic Server Version: 10.3.4.0  
Copyright © 1996, 2010, Oracle and/or its affiliates. All rights reserved.  
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

6. Click the Next button on the Transaction Options page.

## Oracle WebLogic Server Administration Console



7. Enter your database connection details, and then click the Next button.

The Database User Name and Credentials were previously created using the "To Create a Database User for the JMS Persistent Store, page A-3" procedure.

## Oracle WebLogic Server Administration Console

The screenshot displays the Oracle WebLogic Server Administration Console interface. The main window is titled "Create a New JDBC Data Source" and is divided into several sections:

- Change Center:** View changes and restarts. Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.
- Domain Structure:** A tree view showing the domain hierarchy: base\_domain > Environment > Deployments > Services > Data Sources.
- How do I...:** A list of tasks: Create JDBC generic data sources, Create LIR-enabled JDBC data sources.
- System Status:** Health of Running Servers. A bar chart shows 3 servers in the "OK" state.
- Create a New JDBC Data Source Wizard:**
  - Connection Properties:** Define Connection Properties.
  - What is the name of the database you would like to connect to?  
**Database Name:**
  - What is the name or IP address of the database server?  
**Host Name:**
  - What is the port on the database server used to connect to the database?  
**Port:**
  - What database account user name do you want to use to create database connections?  
**Database User Name:**
  - What is the database account password to use to create database connections?  
**Password:**
  - Confirm Password:**

At the bottom of the console, the following text is visible: "WebLogic Server Version: 10.3.4.0 Copyright © 1996-2010, Oracle and/or its affiliates. All rights reserved. Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners."

8. Click the Test Configuration button to verify the connection is successful. Once verified, click the Next button.

## Oracle WebLogic Server Administration Console

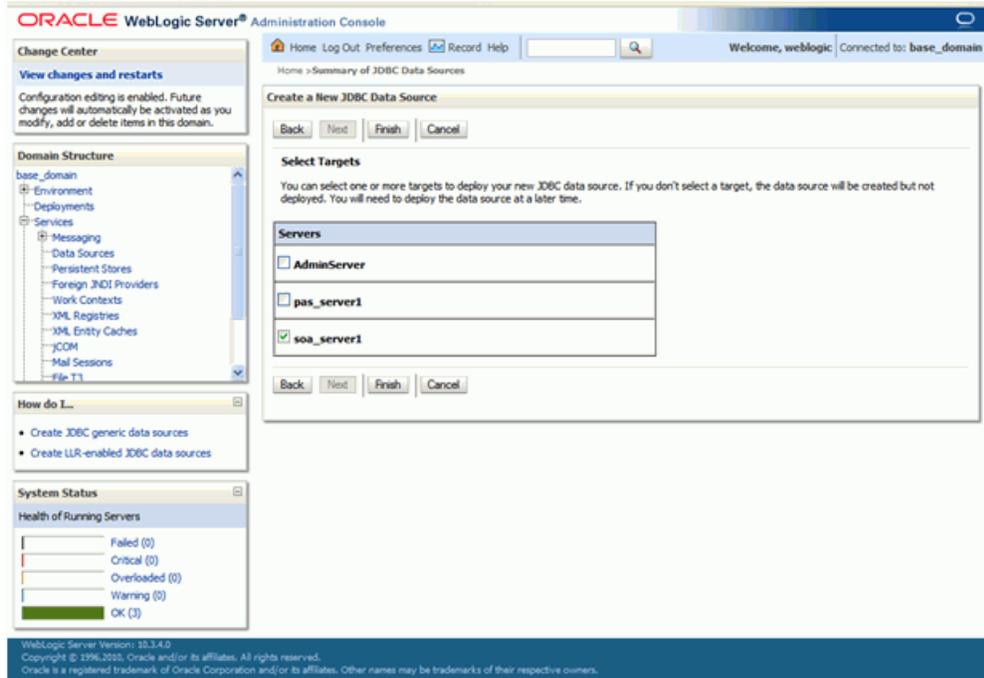
The screenshot displays the Oracle WebLogic Server Administration Console interface. The main content area is titled "Create a New JDBC Data Source" and shows the "Test Database Connection" step. The interface includes a navigation pane on the left with "Domain Structure" and "System Status" sections. The "Test Database Connection" form contains the following fields and values:

- Driver Class Name:** oracle.jdbc.OracleDriver
- URL:** jdbc:oracle:thin:@adcf6l
- Database User Name:** PAS.JMSQUEUE
- Password:** (masked with dots)
- Confirm Password:** (masked with dots)
- Properties:** user=PAS.JMSQUEUE

Buttons for "Test Configuration", "Back", "Next", "Finish", and "Cancel" are visible at the top of the wizard. A message at the top indicates "Connection test succeeded."

9. Select `soa_server1` as the Target.

## Oracle WebLogic Server Administration Console



10. Click the Finish button.

### To Create a Persistent Store:

1. Log onto the Oracle WebLogic Server Administration Console.
2. Navigate to Services > Persistent Stores

## Oracle WebLogic Server Administration Console

The screenshot displays the Oracle WebLogic Server Administration Console interface. The main content area is titled "Summary of Persistent Stores" and includes a descriptive paragraph: "A persistent store is a physical repository for storing subsystem data, such as persistent JMS messages. It can be either a JDBC-accessible database or a disk-based file. This page summarizes the persistent stores that have been created for this domain." Below this is a "Customize this table" section with a "New" button and a "Delete" button. The table lists six persistent stores:

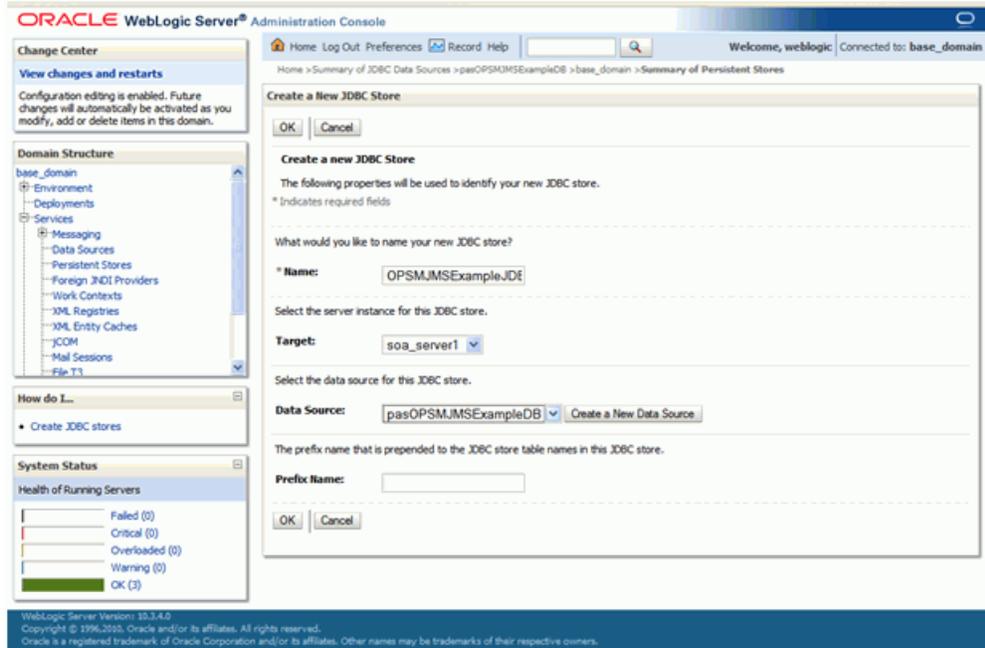
<input type="checkbox"/>	Name	Type	Target
<input type="checkbox"/>	BPMJMSFileStore	FileStore	soa_server1
<input type="checkbox"/>	JRFWASAsyncFileStore	FileStore	soa_server1
<input type="checkbox"/>	OPSMJMSFileStore	FileStore	soa_server1
<input type="checkbox"/>	SOAJMSFileStore	FileStore	soa_server1
<input type="checkbox"/>	UMSJMSFileStore_auto_1	FileStore	bam_server1
<input type="checkbox"/>	UMSJMSFileStore_auto_2	FileStore	soa_server1

At the bottom of the table, there are "New" and "Delete" buttons and a pagination indicator "Showing 1 to 6 of 6 Previous | Next".

3. Click the New button and then click the Create JDBCStore.
4. Enter the following:
  - Enter **%BusinessObjectName%JDBCStore** as the Name for the Data Store
  - Select **soa\_server1** as the Target.
  - Select **pas%BusinessObjectName%DB** as the Data Source.

The Data Source value was previously created using the "To Create a JMS Persistent Store Data Source, page A-3" procedure.

## Oracle WebLogic Server Administration Console



5. Click the OK button.

### To Create a JMS Server:

1. Log onto the Oracle WebLogic Server Administration Console.
2. Navigate to Services > Messaging > JMS Servers

## Oracle WebLogic Server Administration Console

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area is titled "Summary of JMS Servers" and contains the following information:

JMS servers act as management containers for the queues and topics in JMS modules that are targeted to them. This page summarizes the JMS servers that have been created in the current WebLogic Server domain.

**Customize this table**

**JMS Servers (Filtered - More Columns Exist)**

<input type="checkbox"/>	Name	Persistent Store	Target	Current Server	Health
<input type="checkbox"/>	BAMJMServer		bam_server1	bam_server1	
<input type="checkbox"/>	BPMJMServer	BPMJMSFileStore	soa_server1	soa_server1	OK
<input type="checkbox"/>	JRFWSAsyncJmsServer	JRFWSAsyncFileStore	soa_server1	soa_server1	OK
<input type="checkbox"/>	OPSMJMServer	OPSMJMSFileStore	soa_server1	soa_server1	OK
<input type="checkbox"/>	SOAJMServer	SOAJMSFileStore	soa_server1	soa_server1	OK
<input type="checkbox"/>	UMSJMServer_auto_1	UMSJMSFileStore_auto_1	bam_server1	bam_server1	
<input type="checkbox"/>	UMSJMServer_auto_2	UMSJMSFileStore_auto_2	soa_server1	soa_server1	OK

Showing 1 to 7 of 7 Previous | Next

System Status: Health of Running Servers: Failed (0), Critical (0), Overloaded (0), Warning (0), OK (2)

3. Click the New button.
4. Enter the following:
  - Enter **%BusinessObjectName%JMSserver** as the Name for the JMS Server.
  - Select the Persistent Store that you previously created.

The Persistent Store was previously created using the "To Create a Persistent Store, page A-10" procedure.

## Oracle WebLogic Server Administration Console

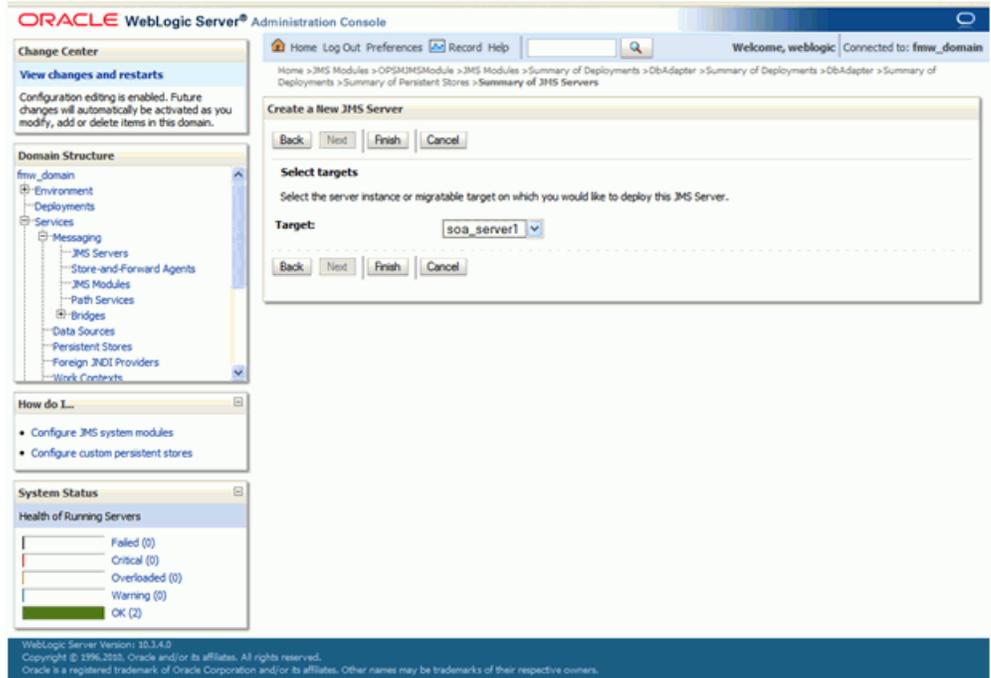
The screenshot displays the Oracle WebLogic Server Administration Console interface. The main content area shows the 'Create a New JMS Server' wizard. The 'JMS Server Properties' section is active, with the following details:

- Name:** MSEExampleJMServer
- Persistent Store:** OPSMJMSExampleJDBCStore

The 'Next' button is highlighted, indicating the next step in the wizard. The left sidebar shows the 'Domain Structure' tree, and the bottom status bar indicates 'WebLogic Server Version: 12.1.3.0.0'.

5. Click the Next button.
6. Select `soa_server1` as the Target.

## Oracle WebLogic Server Administration Console



7. Click the Finish button.

### To Create a JMS Module:

1. Log onto the Oracle WebLogic Server Administration Console.
2. Navigate to Services > Messaging > JMS Modules

## Oracle WebLogic Server Administration Console

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area displays the 'JMS Modules' page, which includes a table of existing JMS modules and a 'New' button to create a new one. The table lists modules such as BAMJmsSystemResource, BPMJMSModule, JRFWSAsyncJmsModule, QPSM\_JMSModule, SOA\_JMSModule, and UMS\_JMSSystemResource, all of type 'System'. The 'New' button is located at the top left of the table.

Name	Type
BAMJmsSystemResource	System
BPMJMSModule	System
JRFWSAsyncJmsModule	System
QPSM_JMSModule	System
SOA_JMSModule	System
UMS_JMSSystemResource	System

3. Click the New button.
4. Enter `%BusinessObjectName%JMSModule` as the Name of the JMS Module.

## Oracle WebLogic Server Administration Console

**ORACLE WebLogic Server** Administration Console

Home | Log Out | Preferences | Record | Help | Welcome, weblogic | Connected to: fmw\_domain

Home > JMS Modules > Summary of Deployments > DbAdapter > Summary of Deployments > DbAdapter > Summary of Deployments > Summary of Persistent Stores > Summary of JMS Servers > OPSSMExampleJMServer > JMS Modules

### Create JMS System Module

Back | Next | Finish | Cancel

The following properties will be used to identify your new module.

JMS system resources are configured and stored as modules similar to standard J2EE modules. Such resources include queues, topics, connection factories, templates, destination keys, quota, distributed queues, distributed topics, foreign servers, and JMS store-and-forward (SAF) parameters. You can administratively configure and manage JMS system modules as global system resources.

\* Indicates required fields

What would you like to name your System Module?

\* Name:

What would you like to name the descriptor file name? If you do not provide a name, a default will be assigned.

Descriptor File Name:

Where would you like to place the descriptor for this System Module, relative to the jms configuration sub-directory of your domain?

Location In Domain:

Back | Next | Finish | Cancel

WebLogic Server Version: 10.3.4.0  
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Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

5. Click the Next button.
6. Select `soa_server1` as the Target.

## Oracle WebLogic Server Administration Console

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area is titled "Create JMS System Module". It includes a breadcrumb trail: Home > JMS Modules > Summary of Deployments > DbAdapter > Summary of Deployments > DbAdapter > Summary of Deployments > Summary of Persistent Stores > Summary of JMS Servers > OPSS/JMSExample/JMSServer > JMS Modules. Below the breadcrumb, there are "Back", "Next", "Finish", and "Cancel" buttons. The text reads: "The following properties will be used to target your new JMS system module. Use this page to select the server or cluster on which you would like to deploy this JMS system module. You can reconfigure targets later if you wish." Under the heading "Targets:", there is a table with the following content:

Servers	
<input type="checkbox"/>	AdminServer
<input type="checkbox"/>	bam_server1
<input checked="" type="checkbox"/>	soa_server1

At the bottom of the table, there are "Back", "Next", "Finish", and "Cancel" buttons. The left sidebar contains sections for "Change Center", "Domain Structure", "How do I...", and "System Status". The "System Status" section shows "Health of Running Servers" with a bar chart indicating 2 OK servers and 0 Failed, Critical, or Overloaded servers.

7. Click the Next button.
8. Click the Finish button.

## Oracle WebLogic Server Administration Console

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area displays the 'JMS Modules' page, which includes a table of configured JMS system modules. The table has columns for 'Name' and 'Type'. The 'Name' column is highlighted, and the 'OPSMJMSExampleJMSModule' entry is selected. The 'Type' column shows that all listed modules are of type 'System'.

Name	Type
BAMJMSSystemResource	System
BPMJMSModule	System
JRFWJMSAsyncJMSModule	System
<b>OPSMJMSExampleJMSModule</b>	System
OPSMJMSModule	System
SOAJMSModule	System
UMSJMSSystemResource	System

9. Select the JMS Module just created by clicking on its name.

## Oracle WebLogic Server Administration Console

The screenshot displays the Oracle WebLogic Server Administration Console interface. The top navigation bar includes "Home", "Log Out", "Preferences", "Record", and "Help". The user is logged in as "weblogic" and connected to the "fmw\_domain". The breadcrumb trail is: Home > Summary of Deployments > DBAdapter > Summary of Deployments > Summary of Persistent Stores > Summary of JMS Servers > OPJMSEExampleJMSModule > JMS Modules > OPJMSEExampleJMSModule > JMS Modules > OPJMSEExampleJMSModule.

The main content area is titled "Settings for OPJMSEExampleJMSModule" and has tabs for "Configuration", "Subdeployments", "Targets", "Security", and "Notes". The "Configuration" tab is active, showing general information about the JMS system module and its resources. It includes fields for "Name" (OPJMSEExampleJMSModule) and "Descriptor File Name" (jms/opjmseexamplejmsmodule-jms.xml). Below this is a "Summary of Resources" table, which is currently empty, displaying "Showing 0 to 0 of 0" and "There are no items to display".

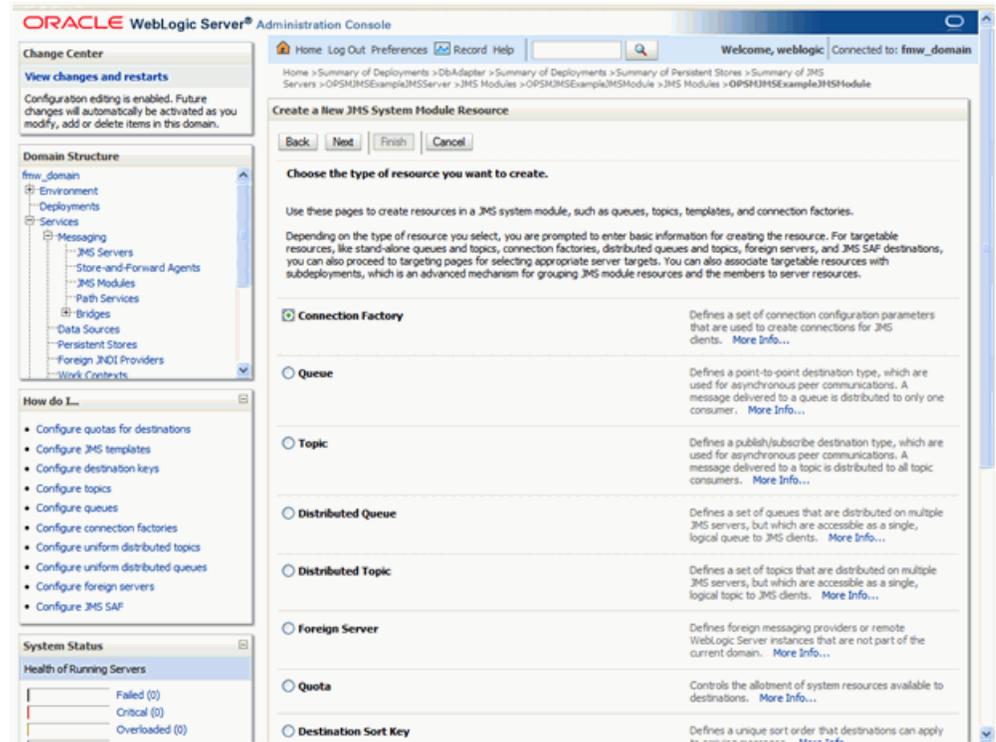
On the left side, there are several panels: "Change Center" (View changes and restarts), "Domain Structure" (a tree view showing the hierarchy from fmw\_domain down to Work Contexts), "How do I..." (a list of help topics), and "System Status" (Health of Running Servers, showing 2 OK servers).

At the bottom, the footer contains the version information: "WebLogic Server Version: 12.1.4.0" and copyright notice: "Copyright © 1996-2010, Oracle and/or its affiliates. All rights reserved. Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners."

10. Click the New button.

11. Select Connection Factory.

## Oracle WebLogic Server Administration Console



12. Click the Next button.
13. Enter the following:
  - Enter **%BusinessObjectName%CF** as the Name of the JMS Connection Factory.
  - Enter **jms/%BusinessObjectName%CF** as the JNDI Name.

## Oracle WebLogic Server Administration Console

**ORACLE WebLogic Server** Administration Console

Home Log Out Preferences Record Help Welcome, weblogic Connected to: frmw\_domain

Home > Summary of Deployments > ObAdapter > Summary of Deployments > Summary of Persistent Stores > Summary of JMS Servers > OPSMJMSEExampleJMServer > JMS Modules > OPSMJMSEExampleJMSModule > JMS Modules > OPSMJMSEExampleJMSModule

### Create a New JMS System Module Resource

Back Next Finish Cancel

#### Connection Factory Properties

The following properties will be used to identify your new connection factory. The current module is OPSMJMSEExampleJMSModule.  
\* Indicates required fields

What would you like to name your new connection factory?

**Name:** OPSMJMSEExampleCF

What JNDI Name would you like to use to look up your new connection factory?

**JNDI Name:** jms/OPSMJMSEExampleCF

The Connection Factory Subscription Sharing Policy Subscribers can be used to control which subscribers can access new subscriptions. Should subscriptions created using this factory be sharable?

**Subscription Sharing Policy:** Exclusive

The Client ID Policy indicates whether more than one JMS connection can use the same Client ID. Oracle recommends setting the Client ID Policy to Unrestricted if sharing durable subscribers. Subscriptions created with different Client ID policies are always treated as independent subscriptions. What Client ID Policy would you like to use?

**Client ID Policy:** Restricted

A connection factory can limit the number of messages that can be queued for an asynchronous session. Should this connection factory impose a limit?

**Maximum Messages per Session:** 10

Should this connection factory create sessions that are JTA aware, and create XA queues and XA topics?

**XA Connection Factory Enabled**

Back Next Finish Cancel

**Change Center**  
View changes and restarts  
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.

**Domain Structure**  
frmw\_domain  
Environment  
Deployments  
Services  
Messaging  
JMS Servers  
Store-and-Forward Agents  
JMS Modules  
Path Services  
Bridges  
Data Sources  
Persistent Stores  
Foreign JNDI Providers  
Work Contexts

**How do I...**

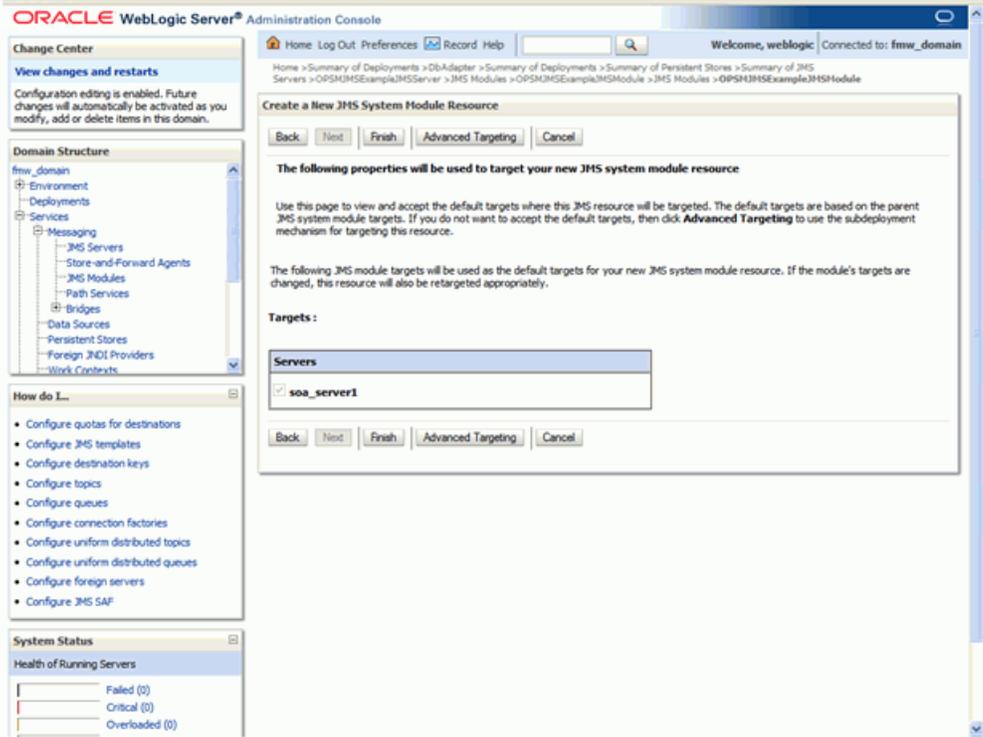
- Configure quotas for destinations
- Configure JMS templates
- Configure destination keys
- Configure topics
- Configure queues
- Configure connection factories
- Configure uniform distributed topics
- Configure uniform distributed queues
- Configure foreign servers
- Configure JMS SAs

**System Status**  
Health of Running Servers

Failed (0)
Critical (0)
Overloaded (0)

14. Click the Next button.

Oracle WebLogic Server Administration Console



15. Click the Finish button.

## Oracle WebLogic Server Administration Console

The screenshot displays the Oracle WebLogic Server Administration Console interface. The top navigation bar includes 'Home', 'Log Out', 'Preferences', 'Record', and 'Help'. The user is logged in as 'weblogic' and connected to the 'fmrw\_domain'. The left sidebar shows the 'Domain Structure' tree with 'Messaging' expanded to 'JMS Modules'. The main content area is titled 'Settings for OPSPJMSEExampleJMSModule' and has tabs for 'Configuration', 'Subdeployments', 'Targets', 'Security', and 'Notes'. The 'Configuration' tab is active, showing general information about the JMS system module. Below this, there is a 'Summary of Resources' section with a table listing resources.

**Messages**

- ✓ All changes have been activated. No restarts are necessary.
- ✓ Connection factory created successfully.

**Settings for OPSPJMSEExampleJMSModule**

**Configuration** Subdeployments Targets Security Notes

This page displays general information about a JMS system module and its resources. It also allows you to configure new resources and access existing resources.

**Name:** OPSPJMSEExampleJMSModule The name of this JMS system module. [More Info...](#)

**Descriptor File Name:** jms/opspjmseexamplejmsmodule-jms.xml The name of the JMS module descriptor file. [More Info...](#)

This page summarizes the JMS resources that have been created for this JMS system module, including queue and topic destinations, connection factories, JMS templates, destination sort keys, destination quota, distributed destinations, foreign servers, and store-and-forward parameters.

[Customize this table](#)

**Summary of Resources**

Showing 1 to 1 of 1 Previous | Next

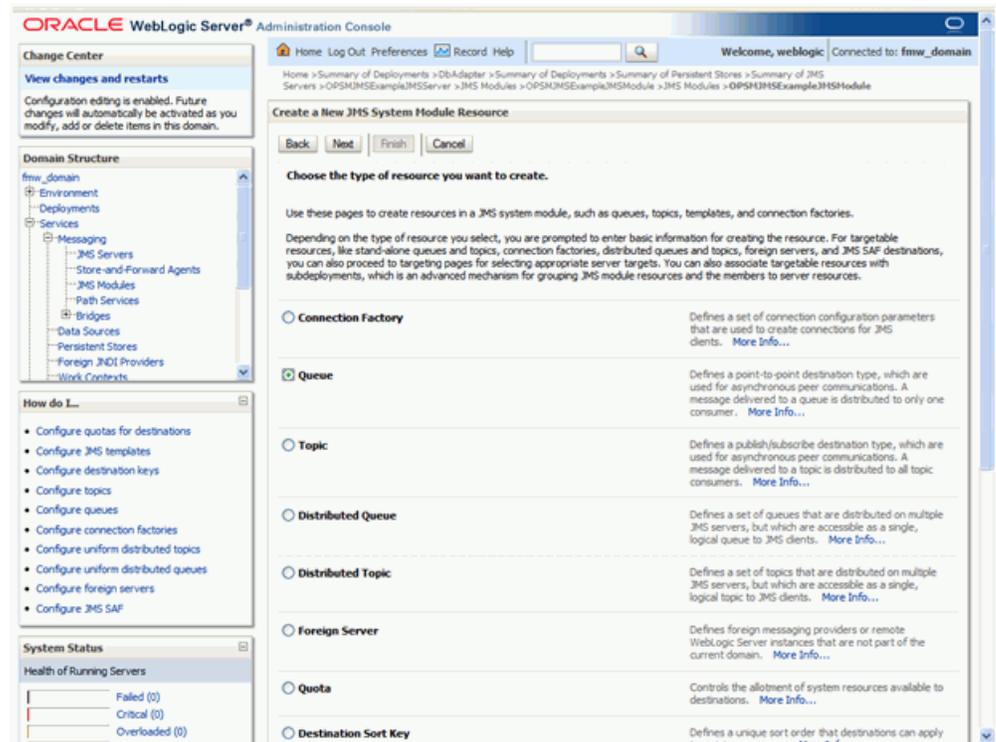
<input type="checkbox"/>	Name	Type	JNDI Name	Subdeployment	Targets
<input type="checkbox"/>	OPSPJMSEExampleCF	Connection Factory	.jms/OPSPJMSEExampleCF	Default Targeting	soa_server1

Showing 1 to 1 of 1 Previous | Next

WebLogic Server Version: 10.3.4.0  
Copyright © 1996-2008, Oracle and/or its affiliates. All rights reserved.  
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16. Click the New button.
17. Select Queue.

## Oracle WebLogic Server Administration Console



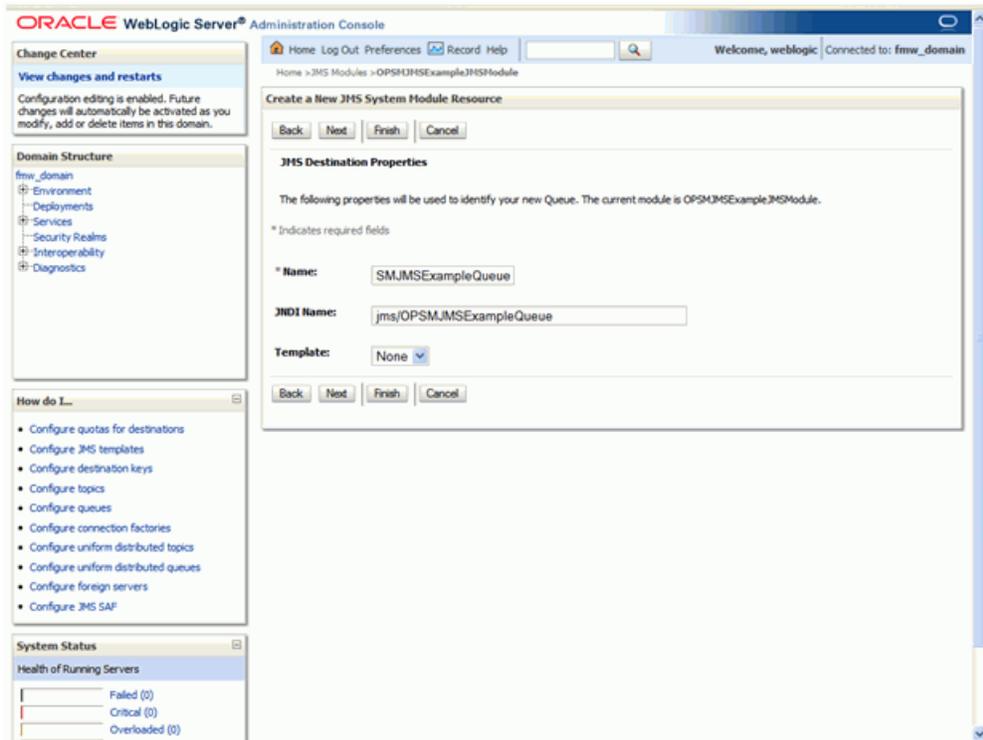
18. Click the Next button.

19. Enter the following:

- Enter the name for the Queue in the Name field.
- Enter the JNDI name for the Queue in the JNDI Name field.

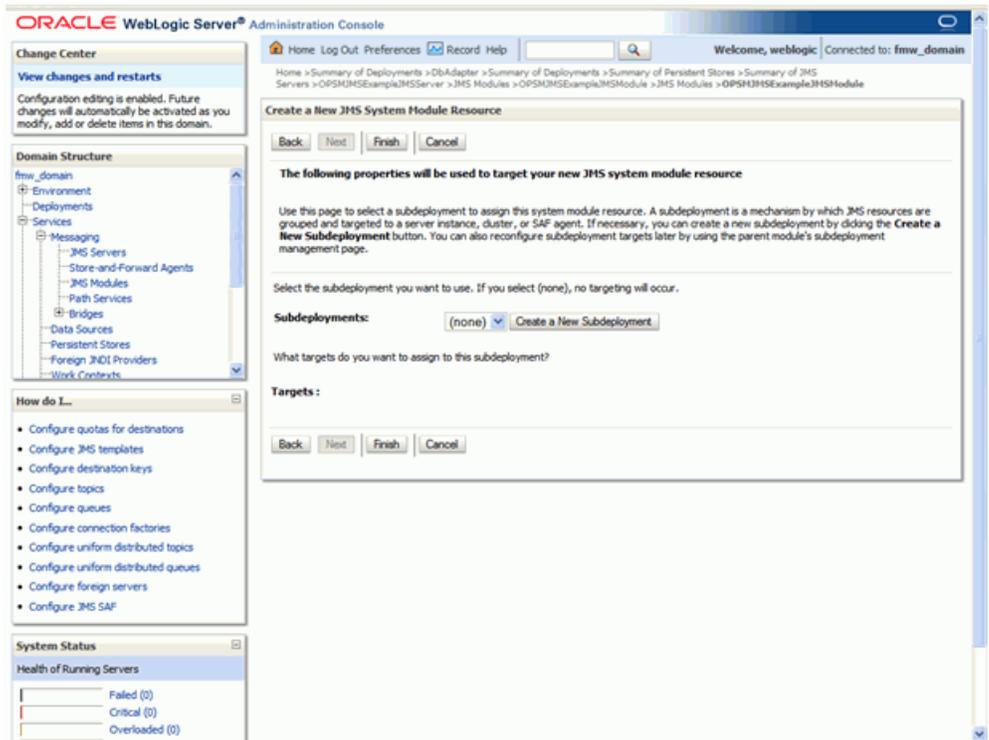
**Important:** This name must be the same as the JNDI name used in the JMS Queue adapter in the PasTransmitSerialsViaWeb composite.

## Oracle WebLogic Server Administration Console



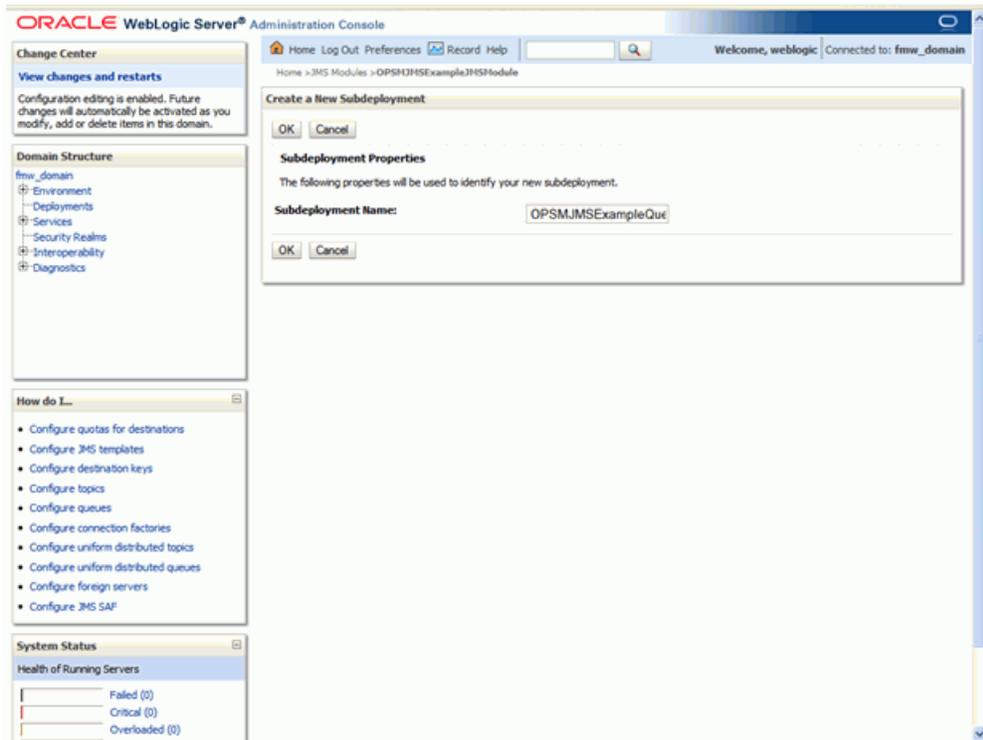
20. Click the Next button.

## Oracle WebLogic Server Administration Console



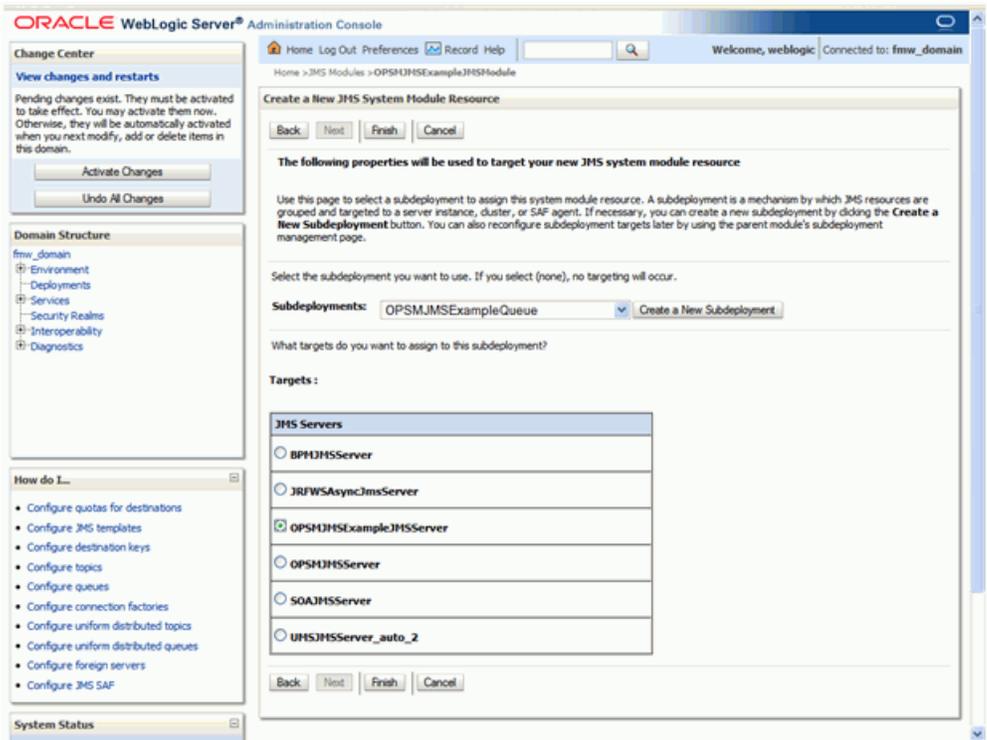
21. Click the Create a New Subdeployment button.

## Oracle WebLogic Server Administration Console



22. Click the OK button.
23. Select the JMS Server previously created using the "To Create a JMS Server, page A-12" procedure.

## Oracle WebLogic Server Administration Console



24. Click the Finish button.

### To Create an Outbound Connection Pool in the JMSAdaptor:

1. Log onto the Oracle WebLogic Server Administration Console.
2. Navigate to Deployments > JMSAdaptor > Configuration > Outbound Connection Pools

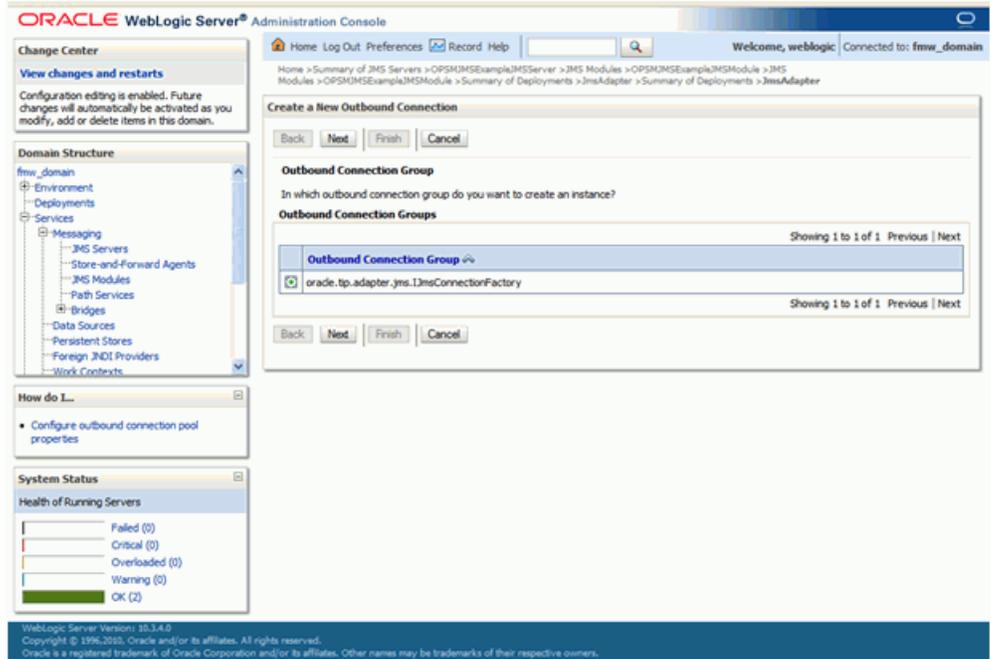
## Oracle WebLogic Server Administration Console

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area is titled 'Settings for JmsAdapter' and is under the 'Configuration' tab. The 'Outbound Connection Pools' sub-tab is active, displaying a table of configuration details. The table has two columns: 'Groups and Instances' and 'Connection Factory Interface'. The first row is expanded, showing a list of instances under the 'oracle.tip.adapter.jms.IJmsConnectionFactory' group. The 'New' button is highlighted in the top left of the table area.

Groups and Instances	Connection Factory Interface
oracle.tip.adapter.jms.IJmsConnectionFactory	oracle.tip.adapter.jms.IJmsConnectionFactory
eis/activemq/Queue	oracle.tip.adapter.jms.IJmsConnectionFactory
eis/ajms/Queue	oracle.tip.adapter.jms.IJmsConnectionFactory
eis/ajms/Topic	oracle.tip.adapter.jms.IJmsConnectionFactory
eis/foranomq/Topic	oracle.tip.adapter.jms.IJmsConnectionFactory
eis/jbossmq/Queue	oracle.tip.adapter.jms.IJmsConnectionFactory
eis/pramat/Queue	oracle.tip.adapter.jms.IJmsConnectionFactory
eis/surmq/Queue	oracle.tip.adapter.jms.IJmsConnectionFactory
eis/nbjms/Queue	oracle.tip.adapter.jms.IJmsConnectionFactory
eis/nbjms/Topic	oracle.tip.adapter.jms.IJmsConnectionFactory
eis/nbjmsDirect/Queue	oracle.tip.adapter.jms.IJmsConnectionFactory
eis/nbjmsDirect/Topic	oracle.tip.adapter.jms.IJmsConnectionFactory
eis/webphermq/Queue	oracle.tip.adapter.jms.IJmsConnectionFactory
eis/wls/Queue	oracle.tip.adapter.jms.IJmsConnectionFactory
eis/wls/Topic	oracle.tip.adapter.jms.IJmsConnectionFactory
eis/wlsjms/OPSMQueue	oracle.tip.adapter.jms.IJmsConnectionFactory

3. Click the New button.
4. Select `oracle.tip.adapter.jms.IJmsConnectionFactory` as the Outbound Connection Group.

## Oracle WebLogic Server Administration Console

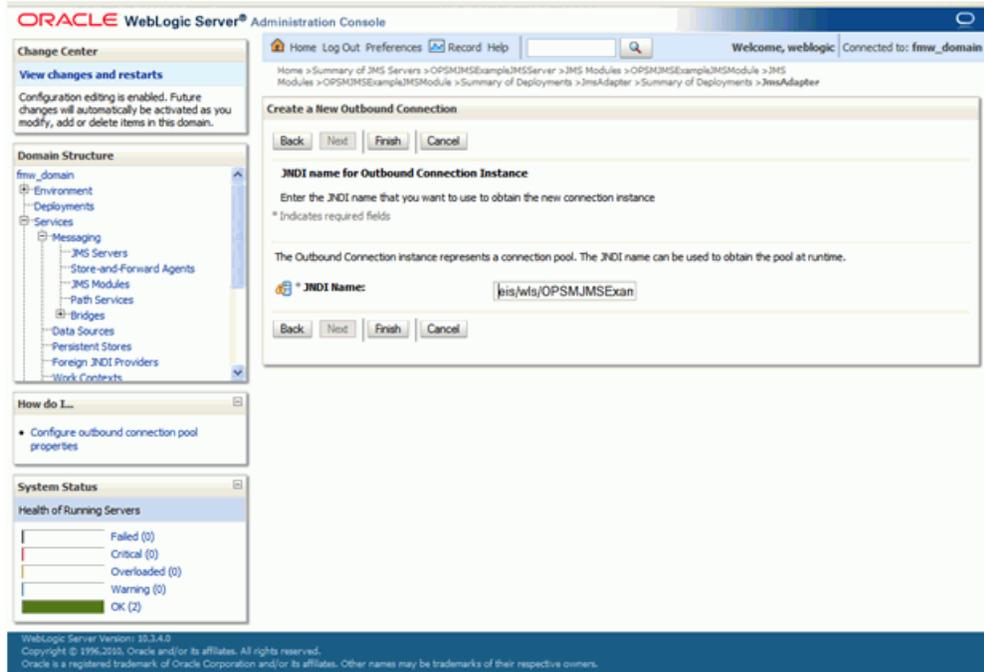


5. Click the Next button.
6. Enter a **value** for the JNDI Name.

For example, eis/wls/%BusinessObjectName%)

**Important:** This name must be the same as the JNDI name used for the JMS destination in the JMS Queue adapter of the PasTransmitSerialsViaWeb composite.

## Oracle WebLogic Server Administration Console



7. Click the Finish button.
8. Navigate back to Deployments > JMSAdapter > Configuration > Outbound Connection Pools

## Oracle WebLogic Server Administration Console

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area is titled 'Settings for JmsAdapter' and is under the 'Configuration' tab. The 'Outbound Connection Pools' sub-tab is active, displaying a table of configuration data. The table has two columns: 'Groups and Instances' and 'Connection Factory Interface'. The table lists 20 entries, each with a checkbox in the first column. The entries include various JMS resources like 'eis/activemq/Queue', 'eis/activemq/Topic', 'eis/ibjms/Queue', etc., all pointing to 'oracle.tp.adapter.jms.1jmsConnectionFactory'.

Groups and Instances	Connection Factory Interface
<input type="checkbox"/> oracle.tp.adapter.jms.1jmsConnectionFactory	oracle.tp.adapter.jms.1jmsConnectionFactory
<input type="checkbox"/> eis/activemq/Queue	oracle.tp.adapter.jms.1jmsConnectionFactory
<input type="checkbox"/> eis/activemq/Topic	oracle.tp.adapter.jms.1jmsConnectionFactory
<input type="checkbox"/> eis/ibjms/Queue	oracle.tp.adapter.jms.1jmsConnectionFactory
<input type="checkbox"/> eis/ibjms/Topic	oracle.tp.adapter.jms.1jmsConnectionFactory
<input type="checkbox"/> eis/ibjmsDirect/Queue	oracle.tp.adapter.jms.1jmsConnectionFactory
<input type="checkbox"/> eis/ibjmsDirect/Topic	oracle.tp.adapter.jms.1jmsConnectionFactory
<input type="checkbox"/> eis/ibjms/Queue	oracle.tp.adapter.jms.1jmsConnectionFactory
<input type="checkbox"/> eis/ibjms/Topic	oracle.tp.adapter.jms.1jmsConnectionFactory
<input type="checkbox"/> eis/ibjmsDirect/Queue	oracle.tp.adapter.jms.1jmsConnectionFactory
<input type="checkbox"/> eis/ibjmsDirect/Topic	oracle.tp.adapter.jms.1jmsConnectionFactory
<input type="checkbox"/> eis/ibjms/Queue	oracle.tp.adapter.jms.1jmsConnectionFactory
<input type="checkbox"/> eis/ibjms/Topic	oracle.tp.adapter.jms.1jmsConnectionFactory
<input type="checkbox"/> eis/ibjmsDirect/Queue	oracle.tp.adapter.jms.1jmsConnectionFactory
<input type="checkbox"/> eis/ibjmsDirect/Topic	oracle.tp.adapter.jms.1jmsConnectionFactory
<input type="checkbox"/> eis/ibjms/Queue	oracle.tp.adapter.jms.1jmsConnectionFactory
<input type="checkbox"/> eis/ibjms/Topic	oracle.tp.adapter.jms.1jmsConnectionFactory
<input type="checkbox"/> eis/ibjmsDirect/Queue	oracle.tp.adapter.jms.1jmsConnectionFactory
<input type="checkbox"/> eis/ibjmsDirect/Topic	oracle.tp.adapter.jms.1jmsConnectionFactory
<input type="checkbox"/> eis/ibjms/Queue	oracle.tp.adapter.jms.1jmsConnectionFactory
<input type="checkbox"/> eis/ibjms/Topic	oracle.tp.adapter.jms.1jmsConnectionFactory
<input type="checkbox"/> eis/ibjmsDirect/Queue	oracle.tp.adapter.jms.1jmsConnectionFactory
<input type="checkbox"/> eis/ibjmsDirect/Topic	oracle.tp.adapter.jms.1jmsConnectionFactory

9. Click the **JNDI Name** that was created previously.  
For example, eis/wls/%BusinessObjectName%)
10. In the ConnectionFactoryLocation property value field, enter the JNDI name of the connection factory that was used when creating the connection factory resource in the JMS Module, and then press Enter.

## Oracle WebLogic Server Administration Console

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area displays the configuration for an Outbound Connection Pool. The breadcrumb trail indicates the path: Home > Summary of JMS Servers > OPSSJMSExampleJMSAdapter > JMS Modules > OPSSJMSExampleJMSModule > Summary of Deployments > JMSAdapter > Summary of Deployments > JMSAdapter.

The configuration page is titled "Settings for oracle.tip.adapter.jms.JmsConnectionFactory" and has tabs for General, Properties, Transaction, Authentication, Connection Pool, and Logging. The Properties tab is active.

The page contains a table of Outbound Connection Properties:

Property Name	Property Type	Property Value
AcknowledgeMode	java.lang.String	AUTO_ACKNOWLEDGE
ConnectionFactoryLocation	java.lang.String	jms/OPSSJMSExampleCF
FactoryProperties	java.lang.String	
IsTopic	java.lang.Boolean	false
IsTransacted	java.lang.Boolean	false
Password	java.lang.String	
Username	java.lang.String	

11. Click the Save button.

**Important:** Remember to update the JMSAdapter's deployment using the updated deployment plan for the above changes to take effect.

## Creating a JMS Destination

Now that you have a JMS Queue, you have to define a destination and set that destination up in SOA. You will need a development environment with Oracle JDeveloper to complete this task.

### To Create a Destination in Oracle Pedigree and Serialization Manager:

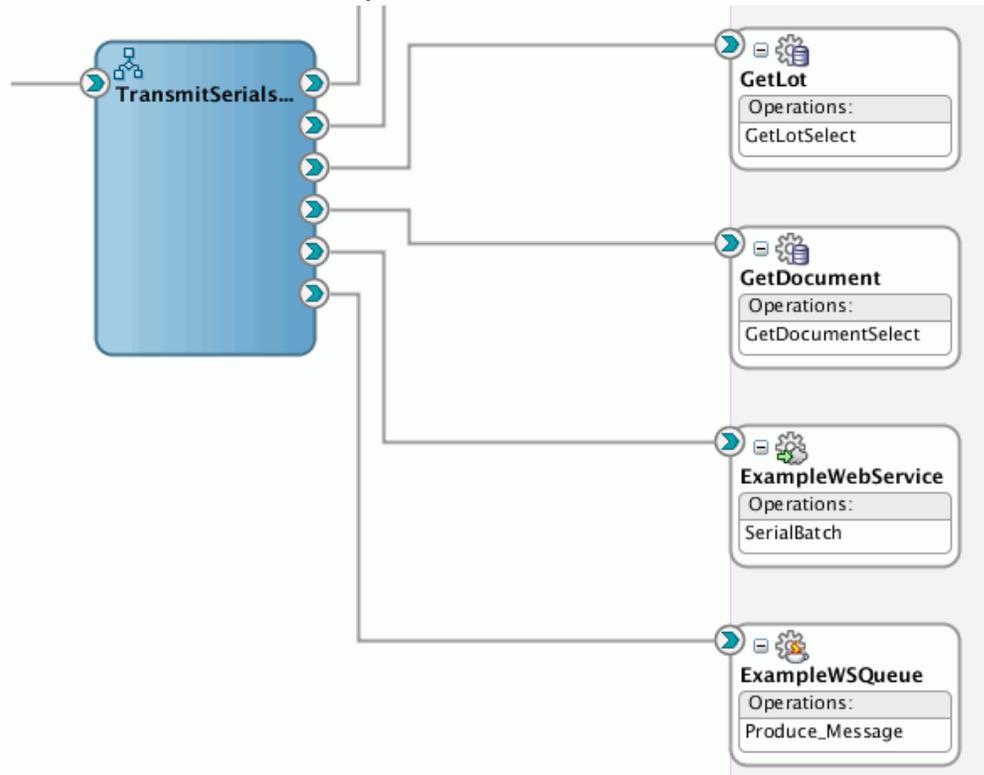
1. Navigate to the Maintain Serial Destinations page and create a new destination. Make sure to select a communication method of *Web Service*.
2. Add a serial destination rule for the new destination.

For more information on creating serial destinations and destination rules, see the Maintaining Serial Destinations and Destination Rules section in the *Oracle Pedigree and Serialization Manager Process Guide*.

### To Set Up a New JMS Destination in SOA:

1. Navigate to your development environment and start up Oracle JDeveloper.
2. Open the SOA application that you created in the above procedure "To Create an Application in JDeveloper", page A-2.
3. Navigate to the project PasTransmitSerialViaWebComposite and open the Composite.xml.

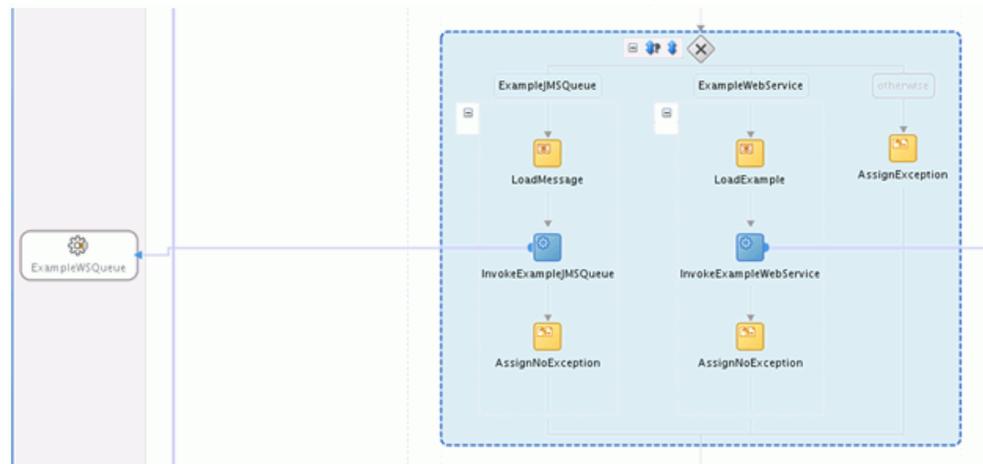
*PasTransmitSerialsViaWeb\Composite.xml*



Notice that there is already a JMS Adapter called `ExampleWSQueue`.

4. Add another JMS Adapter (similar to the `ExampleWSQueue`) and have it point to the JMS Queue that you created earlier. Make sure to create a wire from the `TransmitSerialsViaWeb` BPEL to your new JMS Adapter:
5. Open the `TransmitSerialViaWeb.bpel` and scroll to the bottom. You should see something like this:

### *PasTransmitSerialsViaWebPasTransmitSerialsViaWeb.bpel*



6. Add a case to the switch conditioning it on the name of the new destination you created earlier (use the case named ExampleJMSQueue as an example).
7. Add an Invoke in your new case connecting it to your new JMS Adapter
8. Add an Assign to load the payload
9. Add another Assign under your new invoke to assign no exception (use one of the existing AssignNoException to copy from).
10. If not already done, create a Configuration Plan for the composite using the machine address and port that the database server is on. You can use as an example the existing configuration plan PasTransmitSerialsViaWebComposite\_cfgplan.xml, and see how it is replacing "http://my-prod-server" and "8889".
11. Deploy PasTransmitSerialViaWebComposite using the configuration plan created in the previous step and you are ready to use your new destination.

## Configuring a Web Service Adapter

If you want to send serials to a web service, you have to configure a web service adapter in SOA. You will need a development environment with Oracle JDeveloper to complete this task.

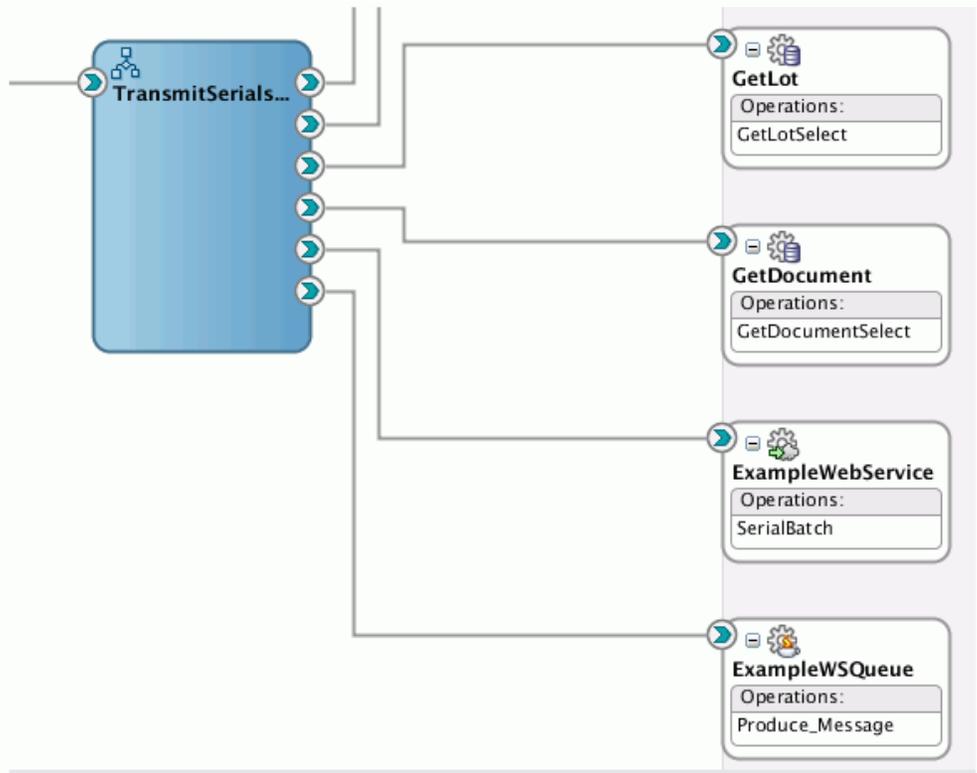
### To Configure a Web Service Adapter:

1. Navigate to your development environment and start up Oracle JDeveloper.
2. Open the SOA application that you created in the above procedure "To Create an

Application in JDeveloper", page A-2.

3. Navigate to the project PasTransmitSerialViaWebComposite and open the Composite.xml.

*PasTransmitSerialsViaWebComposite.xml*



Notice that there is already a Web Service Adapter called `ExampleWebService`. Use it as an example.

4. Import the WSDL and schema for the web service you are adding. The directory where the schemas are kept is `PasTransmitSerialViaWebComposite/XSD`.
5. Add another Web Service Adapter (similar to `ExampleWebService`) using your newly added WSDL. Make sure to create a wire from the `TransmitSerialsViaWeb` BPEL to your new Web Service Adapter:
6. Open the `TransmitSerialViaWeb.bpel` and scroll to the bottom. You should see something like this:

### *PasTransmitSerialsViaWeb\PasTransmitSerialsViaWeb.bpel*



7. Add a case to the switch conditioning it on the name of the new destination you created earlier (use the case named ExampleWebService as an example).
8. Add an Invoke in your new case connecting it to your new JMS Adapter.
9. Add an Assign to load the payload.
10. Add another Assign under your new invoke to assign no exception (use one of the existing AssignNoException to copy from).
11. If not already done, create a Configuration Plan for the composite using the machine address and port that the database server is on. You can use as an example the existing configuration plan PasTransmitSerialsViaWebComposite\_cfgplan.xml, and see how it is replacing "http://my-prod-server" and "8889".
12. Deploy PasTransmitSerialViaWebComposite using the configuration plan created in the previous step and you are ready to use your new destination.

## Creating a Web Service Destination

If you want to send serials to a web service, you have to define a destination.

### To Create a Destination in Oracle Pedigree and Serialization Manager:

1. Navigate to the Maintain Serial Destinations page and create a new destination. Make sure to select a communication method of *Web Service*.
2. Add a serial destination rule for the new destination.

For more information on creating serial destinations and destination rules, see the Maintaining Serial Destinations and Destination Rules section in the *Oracle Pedigree and Serialization Manager Process Guide*.

## Configuring a FTP Adapter

If the method of communication for the serial destination is File Exchange, then a connection factory must be created for the FTP Adapter.

### To Create a Connection Factory:

1. Log onto the Oracle WebLogic Administration Console.
2. Navigate to Deployments > FTPAdapter > Configuration > Outbound Connection Pools

### Oracle WebLogic Server Administration Console

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area is titled 'Settings for FtpAdapter' and has several tabs: Overview, Deployment Plan, Configuration (selected), Security, Targets, Control, Testing, Monitoring, and Notes. Under the 'Configuration' tab, there are sub-tabs: General, Properties, Outbound Connection Pools (selected), Admin Objects, Workload, and Instrumentation. A text block explains that the page displays a table of Outbound Connection Pool groups and instances. Below this is the 'Outbound Connection Pool Configuration Table' with a 'New' and 'Delete' button at the top left and 'Showing 1 to 1 of 1 Previous | Next' at the top right. The table has two columns: 'Groups and Instances' and 'Connection Factory Interface'. The table contains one row with a checkbox in the first column, 'javax.resource.cci.ConnectionFactory' in the second column, and 'javax.resource.cci.ConnectionFactory' in the third column. Below the table, there is another 'New' and 'Delete' button and 'Showing 1 to 1 of 1 Previous | Next'.

Groups and Instances	Connection Factory Interface
<input type="checkbox"/> javax.resource.cci.ConnectionFactory	javax.resource.cci.ConnectionFactory

3. Click the New button.
4. Select `javax.resource.cci.ConnectionFactory` as the Outbound Connection Group.

## Oracle WebLogic Server Administration Console

The screenshot displays the Oracle WebLogic Server Administration Console interface. The main content area shows a dialog box titled "Create a New Outbound Connection". The dialog has a "Next" button highlighted in blue. Below the title bar, there are "Back", "Next", "Finish", and "Cancel" buttons. The main text of the dialog asks, "In which outbound connection group do you want to create an instance?". Below this, there is a section titled "Outbound Connection Groups" which contains a single entry: "Outbound Connection Group" with a dropdown arrow, and below it, "j1vax.resource.cd.ConnectorFactory". There are "Showing 1 to 1 of 1" and "Previous | Next" links on either side of the list. At the bottom of the dialog, there are "Back", "Next", "Finish", and "Cancel" buttons. The left sidebar contains sections for "Change Center", "Domain Structure", "How do I...", and "System Status". The "System Status" section shows "Health of Running Servers" with a bar chart indicating 2 servers are OK.

5. Click the Next button.
6. Enter **eis/Ftp/FileExchange** as the JNDI Name.

## Oracle WebLogic Server Administration Console

The screenshot displays the Oracle WebLogic Server Administration Console interface. The main content area shows the 'Create a New Outbound Connection' wizard. The current step is 'JNDI name for Outbound Connection Instance', which prompts the user to enter a JNDI name. The entered name is 'eis/Ftp/FileExchange'. The wizard includes 'Back', 'Next', 'Finish', and 'Cancel' buttons. On the left side, there is a 'Domain Structure' tree showing the hierarchy: fmw\_domain > Environment > Deployments > Services > Security Realms > Interoperability > Diagnostics. Below the domain structure is a 'How do I...' section with a link to 'Configure outbound connection pool properties'. At the bottom left, the 'System Status' section shows the health of running servers: Failed (0), Critical (0), Overloaded (0), Warning (0), and OK (2). The top navigation bar includes 'Home', 'Log Out', 'Preferences', 'Record', and 'Help'. The user is logged in as 'weblogic' and connected to the 'fmw\_domain'.

7. Save the deployment plan.
8. Click the Finish button.
9. Navigate back to Deployments > FTPAdapter > Configuration > Outbound Connection Pools

## Oracle WebLogic Server Administration Console

The screenshot displays the Oracle WebLogic Server Administration Console interface. The main content area is titled "Settings for FtpAdapter" and is under the "Configuration" tab. The "Outbound Connection Pools" sub-tab is active, showing a table of configuration groups and instances. The table has two columns: "Groups and Instances" and "Connection Factory Interface".

**Outbound Connection Pool Configuration Table**

Groups and Instances	Connection Factory Interface
<input type="checkbox"/> javax.resource.cdi.ConnectionFactory	javax.resource.cdi.ConnectionFactory
<input type="checkbox"/> eis/Ftp/FileExchange	javax.resource.cdi.ConnectionFactory
<input type="checkbox"/> eis/Ftp/FtpAdapter	javax.resource.cdi.ConnectionFactory
<input type="checkbox"/> eis/Ftp/HAFtpAdapter	javax.resource.cdi.ConnectionFactory
<input type="checkbox"/> eis/Ftp/HAFtpAdapterDB2	javax.resource.cdi.ConnectionFactory
<input type="checkbox"/> eis/Ftp/HAFtpAdapterMSSQL	javax.resource.cdi.ConnectionFactory

The "eis/Ftp/FileExchange" instance is highlighted in blue, indicating it is selected. The table also includes "New" and "Delete" buttons at the top and bottom. The console's left sidebar shows the "Domain Structure" tree with "fmw\_domain" expanded, and the "System Status" section showing 2 OK servers.

10. Click **eis/Ftp/FileExchange** instance that was created previously.

## Oracle WebLogic Server Administration Console

ORACLE WebLogic Server Administration Console

Home Log Out Preferences Record Help Welcome, weblogic Connected to: fmw\_domain

Home > JMS Modules > OPSSJMSExampleJMSModule > placeholder > OPSSJMSExampleJMSModule > Summary of Deployments > FtpAdapter

### Settings for javax.resource.cci.ConnectionFactory

General **Properties** Transaction Authentication Connection Pool Logging

This page allows you to view and modify the configuration properties of this outbound connection pool. Properties you modify here are saved to a deployment plan.

#### Outbound Connection Properties

Showing 1 to 10 of 55 Previous | Next

Property Name	Property Type	Property Value
accountName	java.lang.String	
authenticationType	java.lang.String	password
changeDirectory	java.lang.String	false
channelMask	java.lang.String	both
controlDir	java.lang.String	\${user.dir}
defaultDateFormat	java.lang.String	MM d yyyy
enableCipherSuits	java.lang.String	
enforceFileTypeFromSpec	java.lang.String	false
ftpAbsolutePathBegin	java.lang.String	/
ftpClientClass	java.lang.String	default

Showing 1 to 10 of 55 Previous | Next

WebLogic Server Version: 12.1.3.0  
Copyright © 1996, 2010, Oracle and/or its affiliates. All rights reserved.  
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

11. Click the Next link until the host property can be viewed.
12. Enter the machine name of the FTP Server as the Property Value field for the host and press Enter.

## Oracle WebLogic Server Administration Console

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area is titled "Settings for javax.resource.cci.ConnectionFactory" and has tabs for "General", "Properties", "Transaction", "Authentication", "Connection Pool", and "Logging". The "Properties" tab is selected, showing a table of "Outbound Connection Properties". The table has columns for "Property Name", "Property Type", and "Property Value". The "host" property is highlighted, and its value "FtpServerMachine" is being edited in a text input field. Other properties include ftpPathSeparator, inboundDataSource, j2eeProvider, keepConnections, keyStoreAlgorithm, keyStoreProviderName, keyStoreType, listParserKey, and outboundDataSource. The console also features a "Change Center" on the left, a "Domain Structure" tree, and a "System Status" section at the bottom left.

Property Name	Property Type	Property Value
ftpPathSeparator	java.lang.String	/
host	java.lang.String	FtpServerMachine
inboundDataSource	java.lang.String	none
j2eeProvider	java.lang.String	OracleJ2EE
keepConnections	java.lang.String	true
keyStoreAlgorithm	java.lang.String	OracleX509
keyStoreProviderName	java.lang.String	oracle.security.pki.OraclePKIProvider
keyStoreType	java.lang.String	PKCS12
listParserKey	java.lang.String	UNIX
outboundDataSource	java.lang.String	none

13. Click the Next link until the password property can be viewed.
14. Enter the password for the FTP Server in the Property Value field for the password and press Enter.

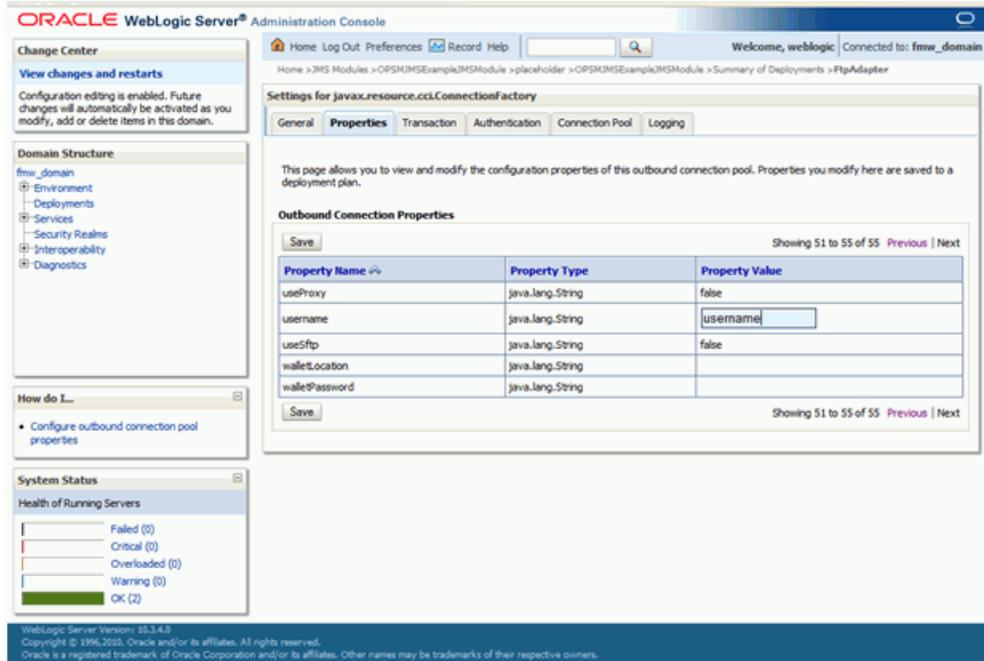
## Oracle WebLogic Server Administration Console

The screenshot displays the Oracle WebLogic Server Administration Console interface. The main content area is titled "Settings for javax.resource.cci.ConnectionFactory" and shows the "Properties" tab. A table lists various configuration properties for the outbound connection pool. The "password" property is selected, and its value field is active, showing the text "password".

Property Name	Property Type	Property Value
outboundDataSourceLocal	java.lang.String	none
outboundLockTypeForWrite	java.lang.String	none
password	java.lang.String	password
pkcProvider	java.lang.String	OraclePKC
port	java.lang.String	21
preferredCipherSuite	java.lang.String	aes128-cbc
preferredCompressionAlgorithm	java.lang.String	none
preferredDataIntegrityAlgorithm	java.lang.String	hmac-md5
preferredKeyExchangeAlgorithm	java.lang.String	diffie-hellman-group1-sha1
preferredPKCAlgorithm	java.lang.String	ssh-rsa

15. Click the Next link until user name property can be viewed.
16. Enter the user name for the FTP Server in the Property Value field for the user name and press Enter.

## Oracle WebLogic Server Administration Console



17. Click the Save button.

**Important:** Remember to update the FTP Adapter's deployment using the updated deployment plan for the above changes to take effect. You may need to bounce the WebLogic server for this change to take effect.

## Creating a File Exchange Destination

Now that you have an FTP Adapter configured in WebLogic, you have to define a destination and set that destination up in SOA. You will need a development environment with Oracle JDeveloper to complete this task.

### To Create a Destination in Oracle Pedigree and Serialization Manager:

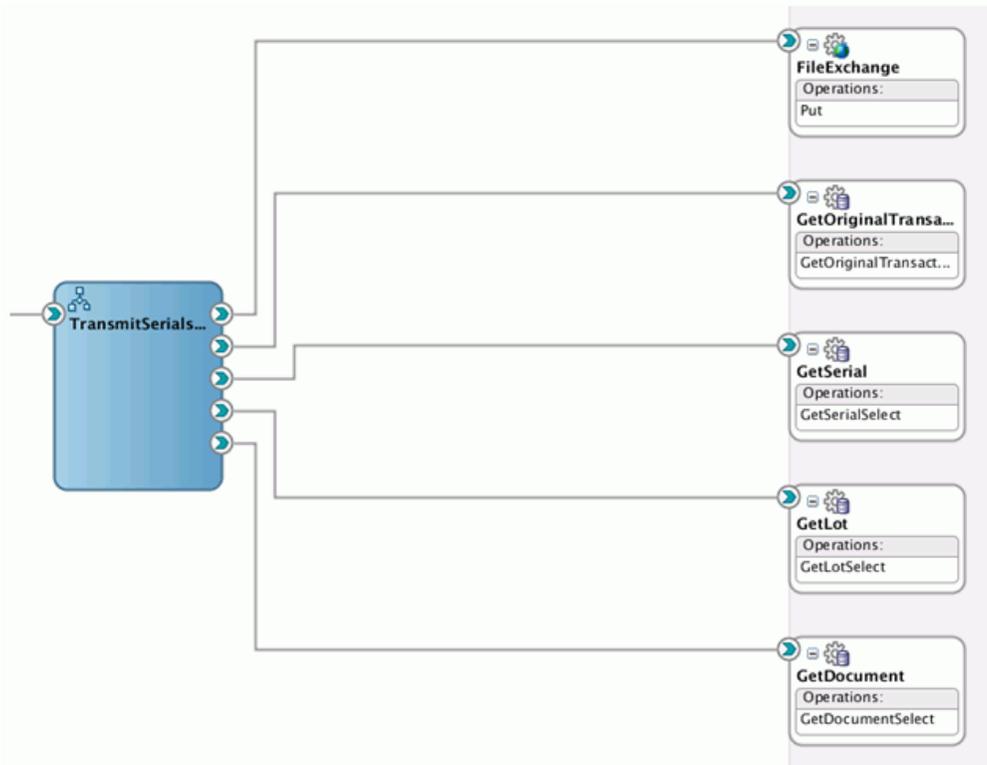
1. Navigate to the Maintain Serial Destinations page and create a new destination. Make sure to select a communication method of *File Exchange*.
2. Add a serial destination rule for the new destination.

For more information on creating serial destinations and destination rules, see the Maintaining Serial Destinations and Destination Rules section in the *Oracle Pedigree and*

**To Set Up a New File Exchange in SOA:**

1. Navigate to your development environment and start up Oracle JDeveloper.
2. Open the SOA application that you created in the above procedure "To Create an Application in JDeveloper", page A-2.
3. Navigate to the project PasTransmitSerialViaFileComposite and open the Composite.xml.

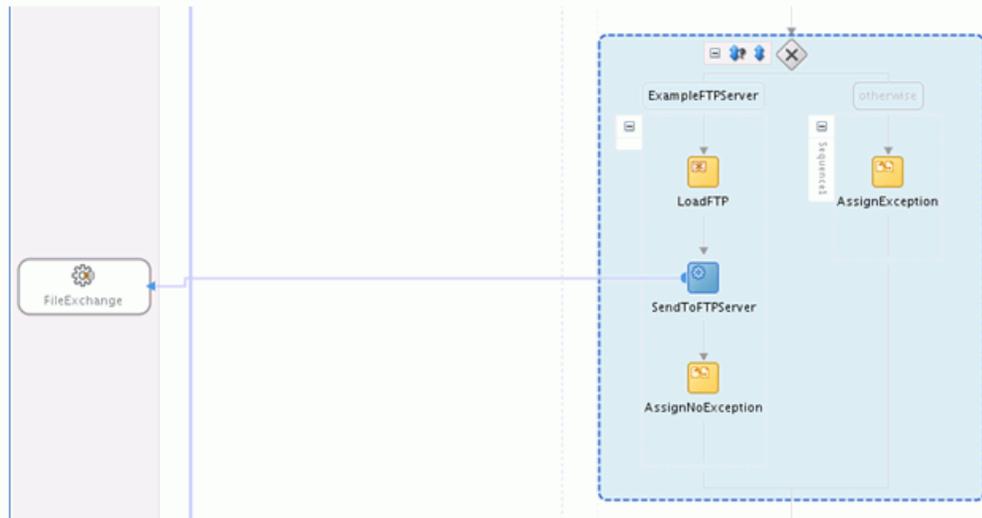
**PasTransmitSerialsViaFileComposite.xml**



Notice that there is already a FTP Adapter called FileExchange. Use it as an example.

4. Add another FTP Adapter (similar to FileExchange) pointing to the FTP Adapter you created earlier. Take care in setting the physical directory. Make sure to create a wire from the TransmitSerialsViaFile BPEL to your new FTP Adapter.
5. Open the TransmitSerialViaFile.bpel and scroll to the bottom. You should see something like this:

*PasTransmitSerialsViaFile\ PasTransmitSerialsViaFile.bpel*



6. Add a case to the switch conditioning it on the name of the new destination you created earlier (use the case named ExampleFTPServer as an example).
7. Add an Invoke in your new case connecting it to your new FTP Adapter.
8. Add an Assign to load the payload.
9. Add another Assign under your new invoke to assign no exception (use one of the existing AssignNoException to copy from).
10. If not already done, create a Configuration Plan for the composite using the machine address and port that the database server is on. You can use as an example the existing configuration plan PasTransmitSerialsViaWebComposite\_cfgplan.xml, and see how it is replacing "http://my-prod-server" and "8889".
11. Deploy PasTransmitSerialViaFileComposite using the configuration plan created in the previous step and you are ready to use your new destination.

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