Oracle® Pedigree and Serialization Manager

Installation Guide

Release 1.2

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Oracle Pedigree and Serialization Manager Installation Guide, Release 1.2

Part No. E36380-01

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Preface

Intended Audience

Welcome to Release 1.2 of the *Oracle Pedigree and Serialization Manager Installation Guide.*

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

Documentation Accessibility

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Structure

functionality being used. It does not hurt to set them all up, even if all of them are not going to be used.

Related Information Sources

- *Oracle Pedigree and Serialization Manager Process Guide*
- *Oracle Pedigree and Serialization Manager Security Guide*
- *Oracle Serialization and Tracking Integration Pack for Oracle Pedigree and Serialization Manager and Oracle E-Business Suite 3.1 - Implementation Guide*

Do Not Use Database Tools to Modify Oracle Applications Data

Oracle STRONGLY RECOMMENDS that you never use SQL*Plus, Oracle Data Browser, database triggers, or any other tool to modify Oracle Applications 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 Applications data, you risk destroying the integrity of your data and you lose the ability to audit changes to your data.

Because Oracle Applications tables are interrelated, any change you make using an Oracle Applications form can update many tables at once. But when you modify Oracle Applications data using anything other than Oracle Applications, 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 Applications.

When you use Oracle Applications 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.

1

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

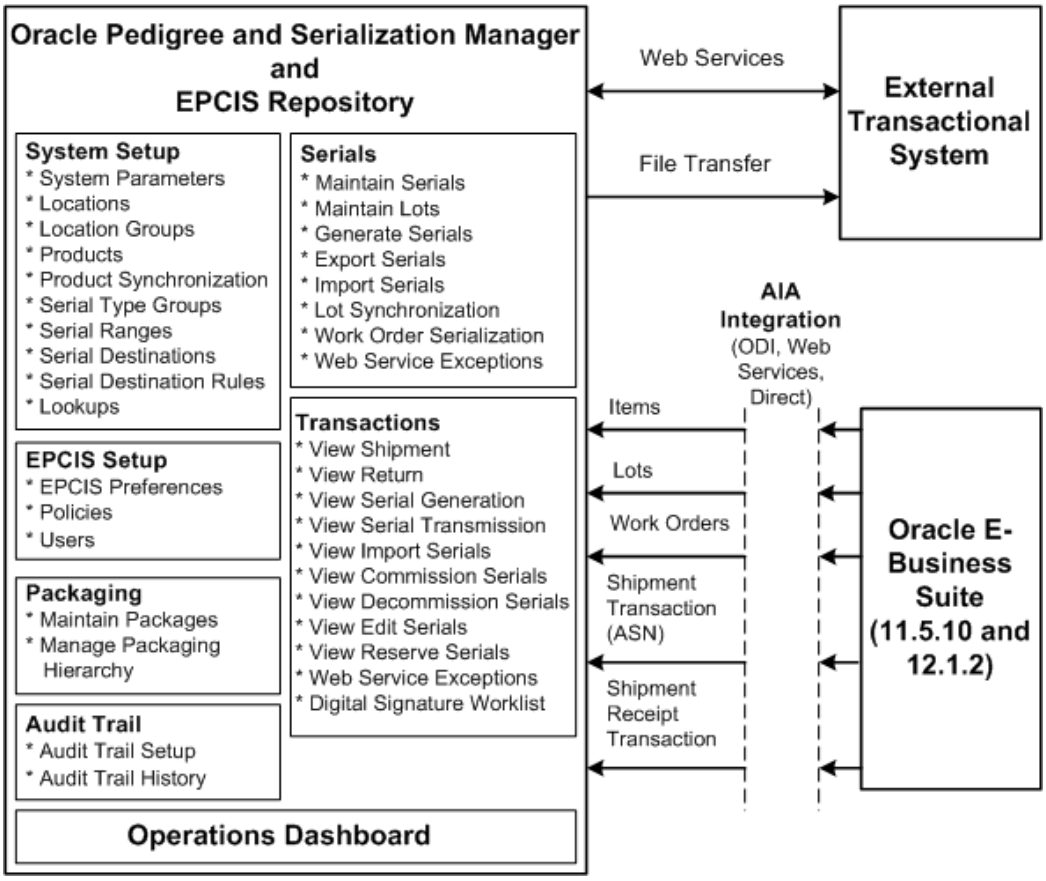
Oracle Pedigree and Serialization Manager (OPSM) is an application that enables companies to manage serialization of products and share serialized product data across the supply chain. OPSM can integrate with your existing manufacturing, shipping, and receiving transactional systems, Oracle E-Business 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 the *Oracle Serialization and Tracking Integration Pack for Oracle Pedigree and Serialization Manager and Oracle E-Business Suite 3.1 - Implementation Guide.*

This diagram illustrates a high-level overview of OPSM:

OPSM High-Level Overview



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.

2

Pre-Installation Considerations

This chapter covers the following topics:

- Requirements

Requirements

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+
  - 4GB+ RAM
- Application Server: 2 Managed Server JVMs with 1 GB RAM (an additional 500 MB is needed if using optional reporting Managed Server)
- 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
- 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
- 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 BI Publisher 10gR3 (10.1.3.4.1) 64-bit (not required unless you wish to print Pedigrees)

For installation details, refer to each software's documentation.

End User Environment:

- Internet Explorer 7.0 or higher or Firefox 2.0.0.2+, 3.0+
- Adobe Flash plug-in installed
- JavaScript enabled
- Pop-up Blocker disabled for server hosts

3

Installing Oracle Pedigree and Serialization Manager

This chapter covers the following topics:

- pas.zip File Explained
- Pre-Installation Tasks
- Installation Tasks
- Post Installation Tasks
- Reinstallation Tasks

pas.zip File Explained

The pas.zip contains the following files:

- adapters
  - JmsAdapterPlan.xml: Deployment plan used to update the JmsAdapter resource adapter deployment to include a new outbound connection pool used by the JMS Queue for integrations.
  - DbAdapterPlan.xml: Deployment plan used to update the DbAdapter resource adapter deployment to include a new outbound connection pool for database connections used in SOA composites.
- applications
  - PasSerializationManager.ear: The main enterprise Oracle Pedigree and Serialization Manager (OPSM) application. This application is deployed into the PAS Managed Server (pas_server1).
  - PasSerialsService_SerialsServices.ear: Supporting Web Services application for

the main OPSM Application. Supports various web service methods for serialization. Deployed into the SOA Server (soa_server1).

- PasTransactionsService_TransactionsServices.ear: Supporting Web Services application for the main OPSM Application. Supports various web service methods for serialization and pedigree transactions. Deployed into the SOA Server (soa_server1).

- PasEpcServices.ear: Supporting Web Services application for the main OPSM Application. Supports various web service methods for Capture and Query of EPCIS documents, and capture of EPCIS documents via HTTP Servlet. Deployed into the SOA Server (soa_server1).

- PasSetupService_SetupServices.ear: Supporting Web Services application for the main OPSM Application. Supports web service methods to create or update the product, product details, and item and item unit of measure details. Deployed into the SOA Server (soa_server1).

- atglite
  - atglite_Rel7_OPSM_ATGPF_11.1.1.7.1_GENERIC_130807.0330.zip: ATGLITE libraries required for the Audit Trail functionality. Deployed into the PAS Managed Server (pas_server1) and SOA Server (soa_server1).

  - fusion_atglite.dmp: Database dump of the FUSION_ATGLITE schema required for the Audit Trail functionality.

- bipublisher
  - Pedigree.zip: Pre-configured Pedigree report for use by Oracle BI Publisher. Contains two templates (GenericPedigree.rtf and PedigreeFloridaXML.rtf) that are used to retrieve basic information applicable to either California or Florida Pedigree laws.

- db
  - xdbpm.zip: Contains files for installing the XDBPM utilities which are needed for the EPCIS database objects.

  - EPCIS.zip: Contains the EPCIS Xml Schema Definition (XSD) files which are needed for the EPCIS database objects.

  - newInstall_step1_fusion_atgliteSchema_createTablespaces.sql: SQL file used to create the tablespaces needed for the FUSION_ATGLITE user.

  - newInstall_step1_fepasSchema_createUsers.sql: SQL file used to create the PAS and PASJMS users used by the application.

- newInstall_step2_fepasSchema_installSchema.sql: SQL file used to create all the OPSM database objects.
- The following files are needed for installing EPCIS database objects:
  - newInstall_step2_pasepcSchema_defineBindVariables.sql
  - newInstall_step2_pasepcSchema_doSchemaRegistration.sql
  - newInstall_step2_pasepcSchema_setFolderNames.sql
  - newInstall_step2_pasepcSchema_setLocalVariables.sql
  - newInstall_step2_pasepcSchema_setVariables.sql
  - newInstall_step2_pasepcSchema_unzipArchive.sql
- newInstall_step2_pasSchema_installAudit.sql: SQL file having the changes related to audit trail.
- newInstall_step2_fepasSchema_errorNotification.sql: SQL file having the changes related to e-mail notification of errors.
- newInstall_step2_fusionSchema_createSynonyms.sql: SQL file that creates the synonyms for the PAS database objects in the FUSION_ATGLITE schema.
- newInstall_step2_fepasSchema_grantsForFusion.sql: SQL file that grants privileges for the PAS database objects to the FUSION_ATGLITE user.
- newInstall_step3_fepasSchema_loadSeedData.sql: SQL file used to load the seed data.
- seed_pas_dashboard.sql: SQL file used to load the dashboard table.
- seed_pas_dashboard_refresh.sql: SQL file used to load the dashboard refresh table.
- seed_pas_languages.sql: SQL file used to load the OPSM languages tables.
- seed_pas_lookups.sql: SQL file used to load the OPSM lookup tables.
- seed_pas_odi_extract_def.sql: SQL file used to load the Oracle Data Integrator extract definitions table.
- seed_pas_serial_type_groups.sql: SQL file used to load the serial type groups table.

- seed_pas_serial_types.sql: SQL file used to load the serial types table.
- seed_pas_system_parameters.sql: SQL file used to load the system parameters table.
- seed_pas_error_messages.sql: SQL file used to load the error messages into the error messages table.
- seed_pas_audit.sql: SQL file user to load the application modules for audit trail setup into the FND_AUDIT_WEBAPP_AM table in the FUSION_ATGLITE schema.
- upgradeInstall_step1_fusion_atgliteSchema_createTablespaces.sql: SQL file used to create the tablespaces needed for the FUSION_ATGLITE user.
- upgradeInstall_step1_fepasSchema_upgradeSchema.sql: SQL file used to upgrade the schema to the latest version.
- upgradeInstall_step1_fepasSchema_alterUser.sql: SQL file to alter the PAS user and create the FUSION_ATGLITE user.
- The following files are needed for installing EPCIS database objects when upgrading to 1.2.0.0.0:
  - upgradeInstall_step1_pasepcSchema_defineBindVariables.sql
  - upgradeInstall_step1_pasepcSchema_doSchemaRegistration.sql
  - upgradeInstall_step1_pasepcSchema_setFolderNames.sql
  - upgradeInstall_step1_pasepcSchema_setLocalVariables.sql
  - upgradeInstall_step1_pasepcSchema_setVariables.sql
  - upgradeInstall_step1_pasepcSchema_unzipArchive.sql
- upgradeInstall_step1_fepasSchema_grantsForFusion.sql: SQL file that grants privileges for the PAS database objects to the FUSION_ATGLITE user.
- upgradeInstall_step1_fepasSchema_upgradeCustomSerialGeneration.sql: SQL file for installing database objects needed for the enhanced custom serial generation.
- upgradeInstall_step2_fepasSchema_upgradeSeedData.sql: SQL file used to upgrade the seed data used by the application to accommodate schema changes.

    - upgradeInstall_step3_fepasSchema_upgradeUserData.sql: SQL file used to upgrade the users data used by the application to accommodate schema changes.

- odi
    - commons-codec-1.3.jar: Library used for the integration with Oracle Data Integrator.
    - commons-httpclient-3.1.jar: Library used for the integration with Oracle Data Integrator.
    - odi-core.jar: Library used for the integration with Oracle Data Integrator.

- soa
    - configPlan: Directory that contains the configuration plans that are attached to each composite during deployment. The configuration plans set the proper host/port information based on information provided in the properties file used by the installer.
    - PasSerializationManagerSoa.zip: The SOA composites used to support the main enterprise OPSM application. Contains the PasCreateTransactionsComposite, PasLotSynchronizationComposite, PasSerialGenRequestComposite, PasTransactionsComposite, PasTransmitSerialsViaFileComposite, PasTransmitSerialsViaWebComposite, and PasCaptureEpcisDocComposite. This is a SAR file that is deployed into the SOA Server (soa_server1).

- scripts
    - pasMasterInstall.py: The master installer script.
    - pasMasterUpgrade.py: The master upgrade script.
    - pas_install.properties: The properties file used by the installer.
    - pasPasswordEncoder.py: The password encoder script.
    - ext_getpass.py: The password retrieval script.

- templates
    - oracle.pas_template_11.1.1.jar: The WebLogic Domain template used to configure a domain for Oracle Pedigree and Serialization Manager.

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.
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** (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: Open the script and modify the parameters before running. This script should 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 should 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 should 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 should be run while connected to the database as the SYS user.

13. 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 should be run while connected to the database as the SYS user.

14. 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 should be run while connected to the database as the PAS user.

15. 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 should be run while connected to the database as the FUSION_ATGLITE user.

16. 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 should be run while connected to the database as the SYS user.

17. Load the seed data by running the "newInstall_step3_fepasSchema_loadSeedData.sql" SQL script provided from within the MW_ORA_HOME/pas/db folder.

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

18. Load the seed data by running the "seed_pas_audit.sql" SQL script provided from within the MW_ORA_HOME/pas/db folder.

Important: This script should be run while connected to the database as the FUSION_ATGLITE 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.

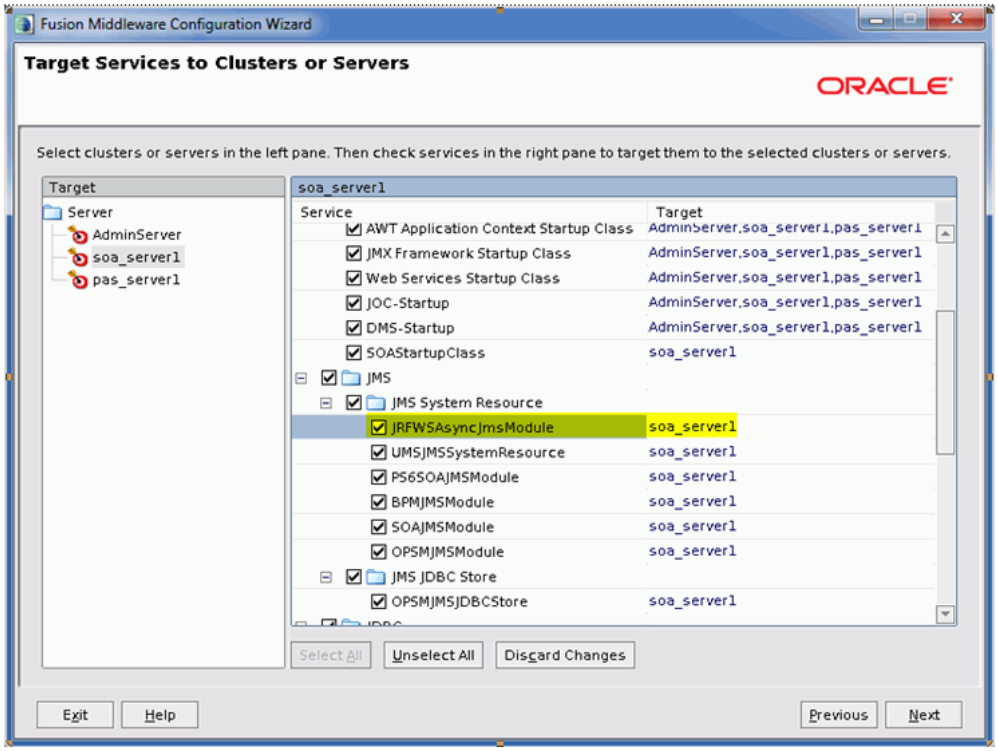
20. Run the Domain Configuration wizard to create/extend a domain. The wizard can be accessed by running the config.sh (Unix-based) command that is located in the /common/bin directory for the WebLogic server product directory located in MW_HOME (For Example: $MW_HOME/wlserver_10.3/common/bin).

    Important: To install the managed server, datasources, 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 OPSM 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* should 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

24. Create the following ATGLITE JDBC datasources in the WebLogic Server Admin Console (e.g. http://<server hostname>:<admin server port>/console):

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

    For the above:

    - Database type should be Oracle.
    - The database driver should be Oracles Driver (Thin) for Instance connections: Versions: 9.0.1 and later.
    - Uncheck Supports Global Transactions under the Transaction Options.
    - Target the datasources to the application server and SOA server. For example, pas_server1 and soa_server1.

- After creating the datasources, modify the following properties under the Connection Pool tab: Initial Capacity = 20, Minimum Capacity = 20, and Maximum Capacity = 4096 (same as the pasDB datasource settings).

25. 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.

26. 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.

27. 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.

28. 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.
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 not (denied).

Name	Parameter
privilege	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.
start_date	Default value NULL. When entered, the ACL will only be active on or after the entered date. Date formats are: • yyyy-mm-dd (2013-09-01) • dd-mm-yyyy (01-09-2013) • mm-dd-yyyy (09-01-2013) You can enter date in any format if the valid date format is provided.
end_date	An optional end date for the ACL. Date formats are: • yyyy-mm-dd (2013-09-01) • dd-mm-yyyy (01-09-2013) • mm-dd-yyyy (09-01-2013) You can enter date in any format if the valid date format is provided.

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.

Name	Parameter
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 should 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	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. Date formats are: • yyyy-mm-dd (2013-09-01) • dd-mm-yyyy (01-09-2013) • mm-dd-yyyy (09-01-2013) You can enter date in any format if the valid date format is provided .
end_date	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. Date formats are: • yyyy-mm-dd (2013-09-01) • dd-mm-yyyy (01-09-2013) • mm-dd-yyyy (09-01-2013) You can enter date in any format if the valid date format is provided .

Installation Tasks

1. Make sure that the admin 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 3-6 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

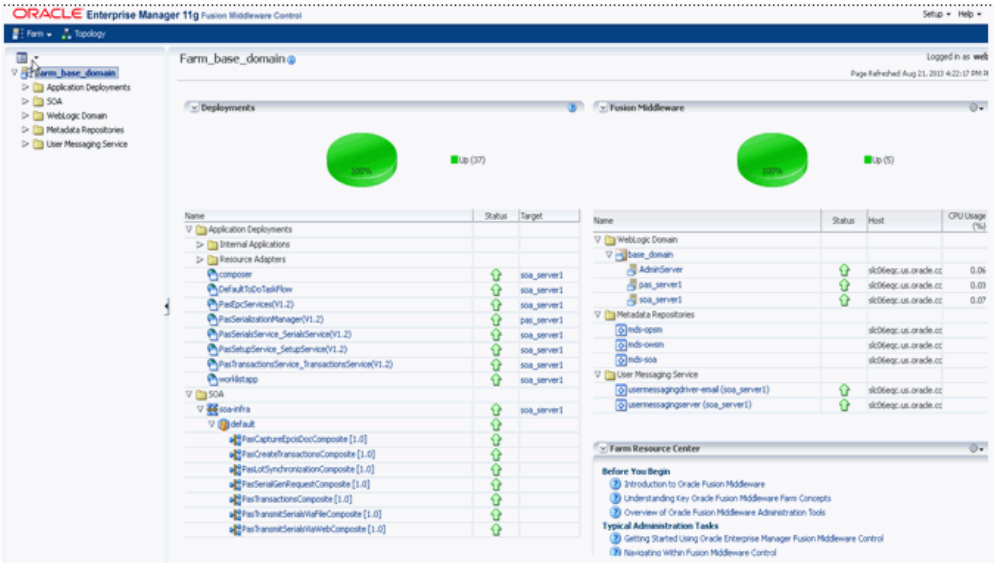
After installation is complete your domain should be running with at least the following:

- 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 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.

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.

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 3-6, 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.

   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 3-6.

7. Perform step 8 from Pre-Installation Tasks, page 3-6.

8. Perform step 19 from Pre-Installation Tasks, page 3-6.

9. Perform a new install.

   Follow the steps for a new install starting with step 1 under the section Installation Tasks, page 3-17.

4

Upgrading Oracle Pedigree and Serialization Manager

Following are the steps for upgrading Oracle Pedigree and Serialization Manager (OPSM) from 1.1.1.0.5 to 1.2.0.0.0.

This chapter covers the following topics:

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

Pre-Upgrade Tasks

1. Upgrade to Oracle 11gR2 (11.2.0.3.0) 64-bit bit Production Database, Enterprise Edition.

2. Upgrade to WebLogic 11gR1PS6 (10.3.6.0) 64-bit.

3. Upgrade to SOA Suite 11gR1PS6 (11.1.1.7.0) 64-bit, including Enterprise Manager and the Repository Creation Utility (RCU) 11gR1PS6.

   Refer to Updating Your Schemas with Patch Set Assistant in *Oracle® Fusion Middleware Patching Guide, 11g Release 1 (11.1.1.7.0),* to upgrade the schemas to 11gR1PS6. If there are issues upgrading the SOAINFRA schema, follow the steps from SOA 11g: Getting "SOAINFRA schema is not valid" Error During Upgrade Process [Article ID 1467024.1] from support.oracle.com.

4. Download and apply the patch 16964825 from support.oracle.com.

5. 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

6. Copy the pas.zip file to the location that you have set in your MW_ORA_HOME environment variable.

7. Unzip the pas.zip file using the following command: **unzip pas.zip** (If you have unzipped the pas.zip elsewhere, move it to the location that you've set in your MW_ORA_HOME environment variable).

8. Take a backup of the OPSM data. In particular, take a backup of any custom code in the package specification and body of the following database packages - PAS_SERIAL_GEN and PAS_SERIAL_VAL.

9. Create the tablespaces required for creating the FUSION_ATGLITE user by running the "upgradeInstall_step1_fusion_atgliteSchema_createTablespaces.sql" SQL script provided from within the MW_ORA_HOME/pas/db folder.

   Important: Open the script and modify the parameters before running. This script should 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: Above command should be run while connected to the database as the SYS user.

11. Grant new roles and privileges to the database schema users/owners FUSION_ATGLITE and PAS by running the "upgradeInstall_step1_fepasSchema_alterUser.sql" SQL script provided from within the MW_ORA_HOME/pas/db folder.

    Important: This script should be run while connected to the database as the SYS user. In addition, the database schema user/owner FUSION_ATGLITE will be created locked and password expired. After the script has run successfully, be sure to edit the FUSION_ATGLITE owner 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 parameter. For the Unix/Linux operating systems:

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

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

13. Register the XML Schema's used by the database objects by running the "upgradeInstall_step1_pasepcSchema_doSchemaRegistration.sql" SQL script provided within the MW_ORA_HOME/pas/db folder.

    ```
    sqlplus <user>/<password>@<database> as sysdba
    @upgradeInstall_step1_pasepcSchema_doSchemaRegistration.sql $PWD
    ```

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

14. Upgrade the OPSM database objects (for example, tables, views, and so on) by running the "upgradeInstall_step1_fepasSchema_upgradeSchema.sql" SQL script provided within the MW_ORA_HOME/pas/db folder.

    ```
    sqlplus <user>/<password>@<database> @
    upgradeInstall_step1_fepasSchema_upgradeSchema.sql $PWD
    ```

    Important: This script should be run while connected to the

database as the PAS user.

15. Restore the backup of the custom code in the packages PAS_SERIAL_GEN and PAS_SERIAL_VAL.

16. 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 should be run while connected to the database as the FUSION_ATGLITE user.

17. Grant privileges over PAS objects to the FUSION_ATGLITE user by running the "upgradeInstall_step1_fepasSchema_grantsForFusion.sql" SQL script provided within the MW_ORA_HOME/pas/db folder.

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

18. Upgrade the seed data by running the "upgradeInstall_step2_fepasSchema_upgradeSeedData.sql" SQL script provided from within the MW_ORA_HOME/pas/db folder.

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

19. Load the seed data by running the "seed_pas_audit.sql" SQL script provided from within the MW_ORA_HOME/pas/db folder.

    Important: This script should be run while connected to the database as the FUSION_ATGLITE user.

20. Upgrade the user data by running the "upgradeInstall_step3_fepasSchema_upgradeUserData.sql" SQL script provided from within the MW_ORA_HOME/pas/db folder.

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

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

24. Create the following ATGLITE JDBC datasources in the WebLogic Server Admin Console (e.g. http://<server hostname>:<admin server port>/console):

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

For the above:

- Database type should be Oracle.
- The database driver should be Oracles Driver (Thin) for Instance connections: Versions: 9.0.1 and later.
- Uncheck Supports Global Transactions under the Transaction Options.
- Target the datasources to the application server and SOA server. For example, pas_server1 and soa_server1.
- After creating the datasources, modify the following properties under the

Connection Pool tab: Initial Capacity = 20, Minimum Capacity = 20, and Maximum Capacity = 4096 (same as the pasDB datasource settings).

25. 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. Backup the files under the folder present in the Staging Directory Name property and remove the files from that directory for both the application server and SOA server (for example, pas_server1 and soa_server1).

26. Ensure the Listen Address and Listen Port properties of the servers is populated with the host address and the corresponding port for that server, under the server Configuration tab and General sub-tab.

27. 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.

28. In the Weblogic Admin Console, navigate to Services, then Data Sources, then select the pasDB data source. On the Configuration tab and Connection Pool sub-tab, change the user for the pasDB data source to FUSION_ATGLITE and change the password corresponding to that user.

29. In the Enterprise Manager, undeploy all OPSM applications. Under the Fusion Middleware domain, expand WebLogic Domain then select your domain (for example, base_domain). On the right side, at the top of the page, from the WebLogic Domain drop down, select Application Deployment, then select Undeploy. Select PasSerializationManager, PasSerialsService_SerialsServices, PasTransactionsService_TransactionsServices and then click Next. Click Undeploy.

30. In the Enterprise Manager, undeploy all composites. Under the Navigation Tree, go to Farm_<domain> node (<domain> refers to the actual name of your domain), then SOA node, then soa-infra node, then default node, then select the Deployment button, and select Undeploy All From This Partition. If after undeploying the composites, if some composites still show as deployed, then bounce the soa_server1.

31. 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.

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.
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 not (denied).

Name	Parameter
privilege	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.
start_date	Default value NULL. When entered, the ACL will only be active on or after the entered date. Date formats are: • yyyy-mm-dd (2013-09-01) • dd-mm-yyyy (01-09-2013) • mm-dd-yyyy (09-01-2013) You can enter date in any format if the valid date format is provided.
end_date	An optional end date for the ACL. Date formats are: • yyyy-mm-dd (2013-09-01) • dd-mm-yyyy (01-09-2013) • mm-dd-yyyy (09-01-2013) You can enter date in any format if the valid date format is provided.

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.

Name	Parameter
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 should 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	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. Date formats are: • yyyy-mm-dd (2013-09-01) • dd-mm-yyyy (01-09-2013) • mm-dd-yyyy (09-01-2013) You can enter date in any format if the valid date format is provided .
end_date	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. Date formats are: • yyyy-mm-dd (2013-09-01) • dd-mm-yyyy (01-09-2013) • mm-dd-yyyy (09-01-2013) You can enter date in any format if the valid date format is provided .

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 "pasMasterUpgrade.py" script. Run the installation script using the following command: **$MW_ORA_HOME/common/bin/wlst.sh ./pasMasterUpgrade.py**

   Ensure that the terminal on which you are running the upgrade 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 upgrade activities later.

   > **Important:** 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 installs:

   - **sh startManagedWebLogic.sh soa_server1**
   - **sh startManagedWebLogic.sh pas_server1**

   After the managed servers are started, press enter in the first terminal where pasMasterUpgrade.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. 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 3-19section to verify that the servers are running.

Configure Security for the Application and Services

Refer to the *Oracle Pedigree and Serialization Manager Security Guide* to configure security for the new web services and SOA composite:

- QueryService
- CaptureService
- ProductServiceAMService
- PasCaptureComposite

In the *Oracle Pedigree and Serialization Manager Security Guide:*

The *Setting Up Global Policy Attachments* section applies to ProductServiceAMService. If global policy sets are set up such that the same Policy Sets apply to all services, no additional setup is needed for this service.

The *Setting Up Direct Policy Attachments* section applies to the QueryService and CaptureService. Note the change in URL for the SerialsServiceAMService from opsmservices-serials/SerialsServiceAMService to opsmservices-transactions/SerialsServiceAMService.

The *Setting Up Global Policy Attachments for Composites* section applies to PasCaptureComposite. Review and make the necessary changes for PasCaptureComposite.

Enter Digital Signature Information (Optional)

- Enable digital signatures.

  Refer to the *Setting Up Keys and Passwords for Digital Signature* section in the Oracle *Pedigree and Serialization Manager Security Guide* for the setup related to digital signatures.

- Enter location contact information.

  Additional set up may be required for Location Contacts if you are using Digital Signatures. Refer to *Maintaining Locations* and *Understanding Pedigree* sections in the *Oracle Pedigree and Serialization Manager Process Guide.*

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 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.

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

7. Perform step 7 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 4-11.

5

Application Tuning and Troubleshooting

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 PasSerialsService_SerialsServices, 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 AdminServer, PAS Server (for example, pas_server1), and SOA Server (for example, soa_server1) servers 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(V1.x) - targeted to your PAS server
    2. PasSerialsServices_SerialsServices(V1.x) - targeted to your SOA server
    3. PasTransactionsServices_TransactionsServices(V1.x) - targeted to your SOA server
    4. PasEpcServices(V1.x) - targeted to your SOA server
    5. PasSetupServices(V1.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 AdminServer 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.

A

Setting 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. It does not hurt to set them all up, even if all of them are not 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:

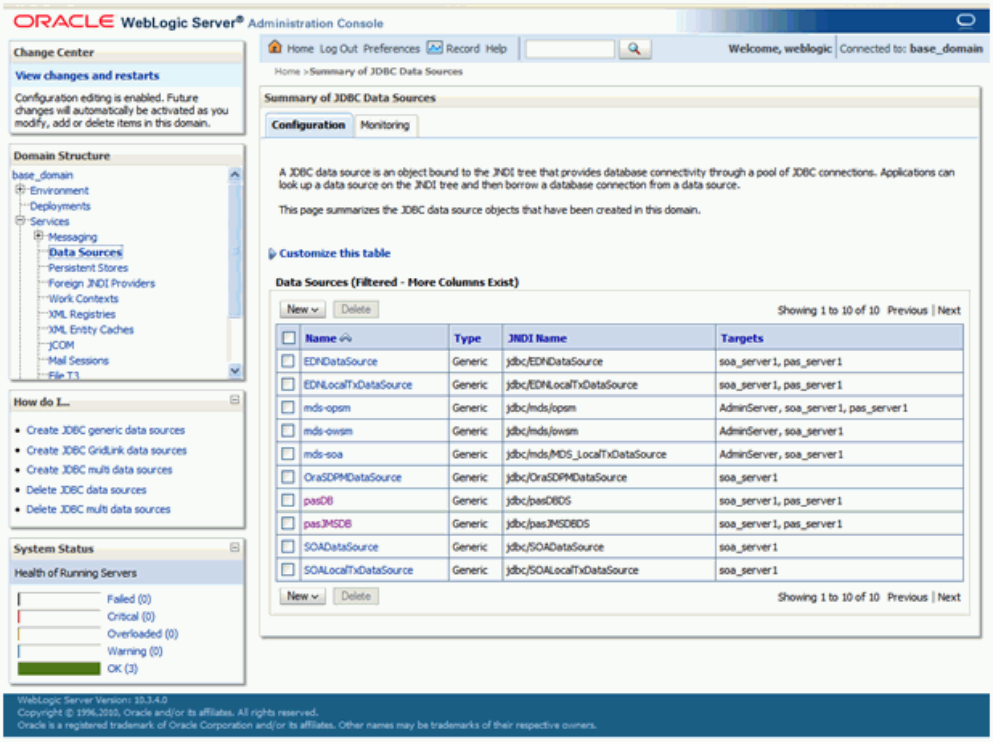
```
-- USER SQL
CREATE USER <databaseuser> IDENTIFIED BY <databasepassword>
DEFAULT TABLESPACE USERS
TEMPORARY TABLESPACE TEMP;

-- 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.
2. Navigate to Services > Data Sources

Oracle WebLogic Server Administration Console

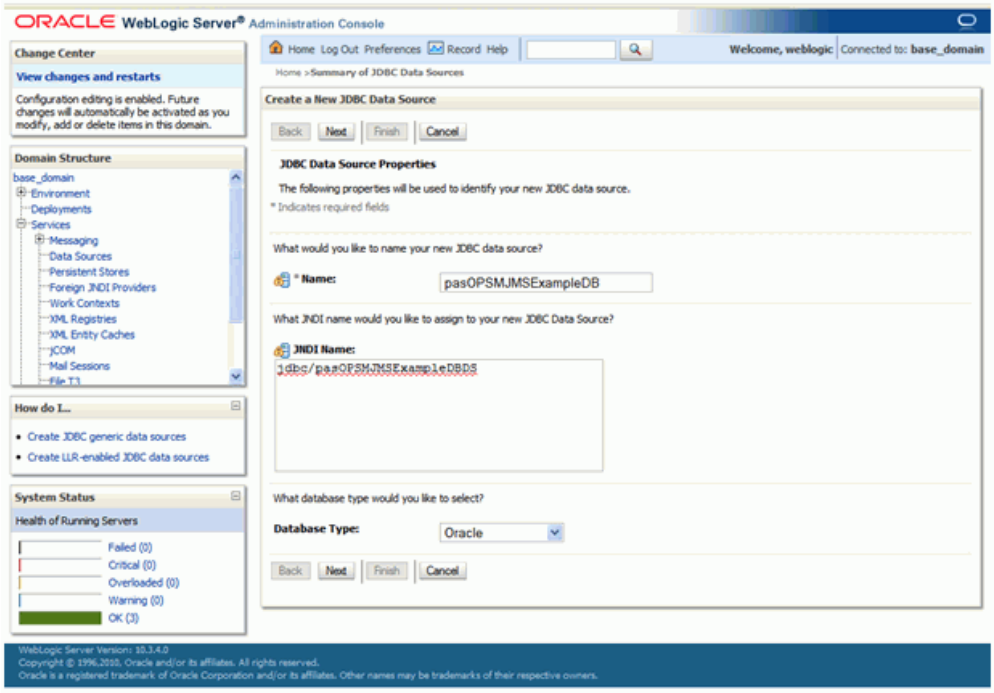


3. Click the New button and then click the Generic Data Source.

4. Enter the following:

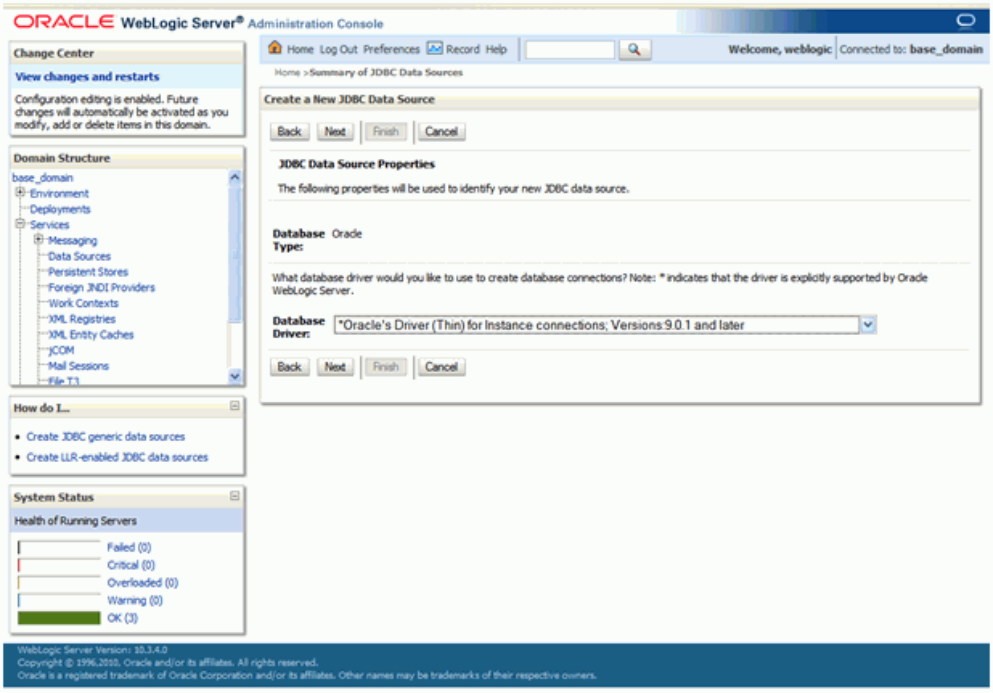
   - Enter **pas%BusinessObjectName%DB** as the Name for the Data Source.
   - Enter **jdbc/pas%BusinessObjectName%DBDS** as the JNDI Name.
   - Click the Next button.

Oracle WebLogic Server Administration Console



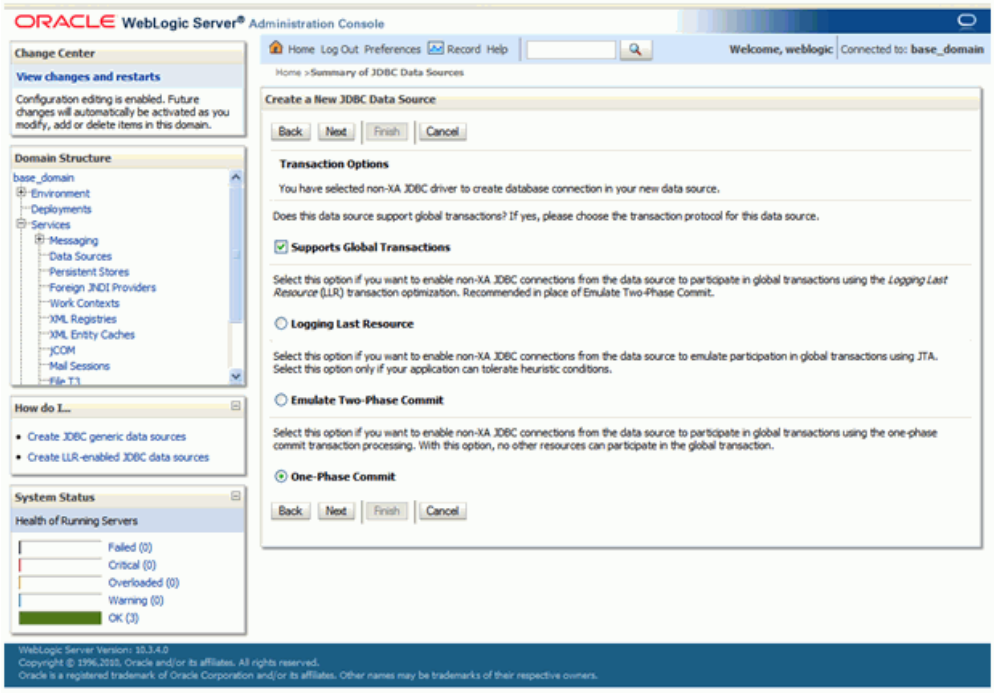
5. Select the appropriate database driver, and then click the Next button.

Oracle WebLogic Server Administration Console



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

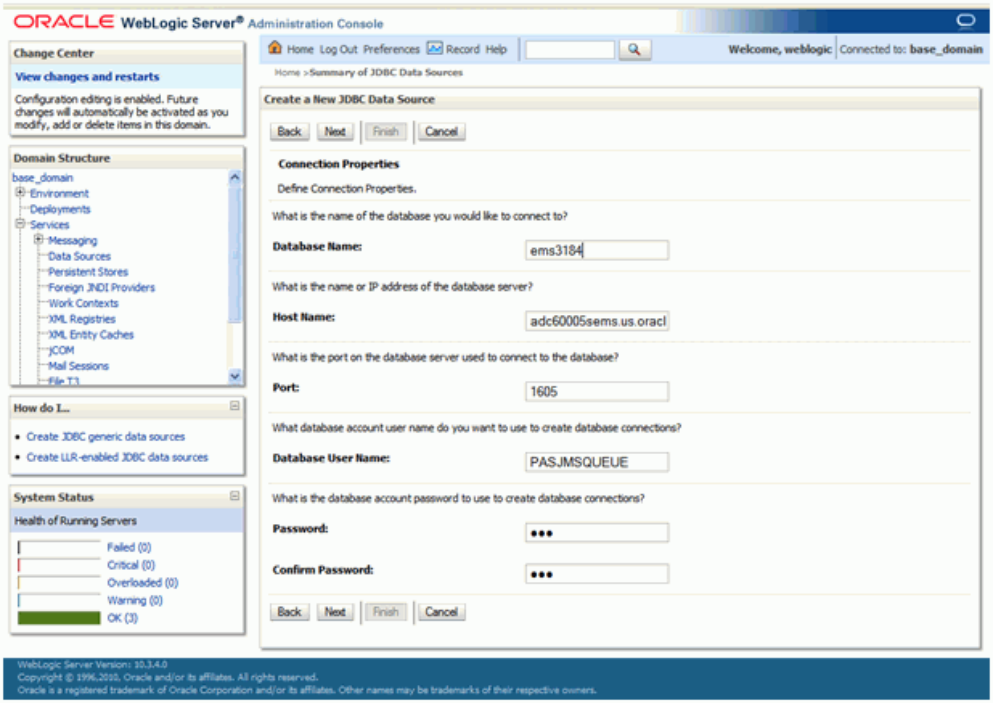
Oracle WebLogic Server Administration Console



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

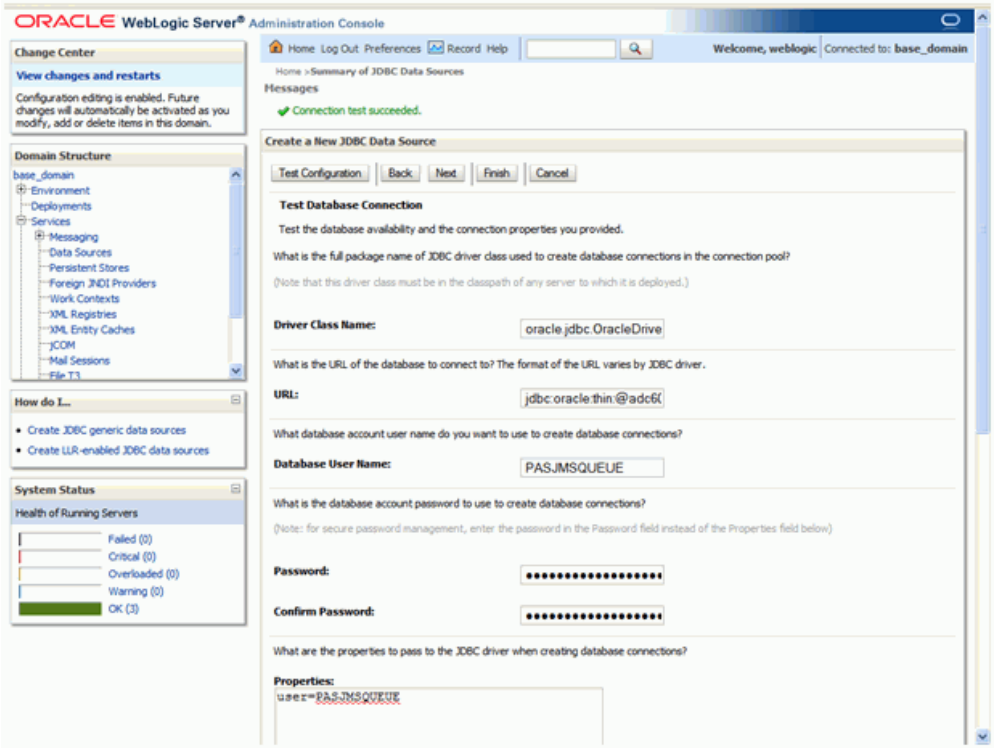
   The Database User Name and Credentials were previously created using the "To Create a Database User for the JMS Persistent Store, page A-3" procedure.

Oracle WebLogic Server Administration Console



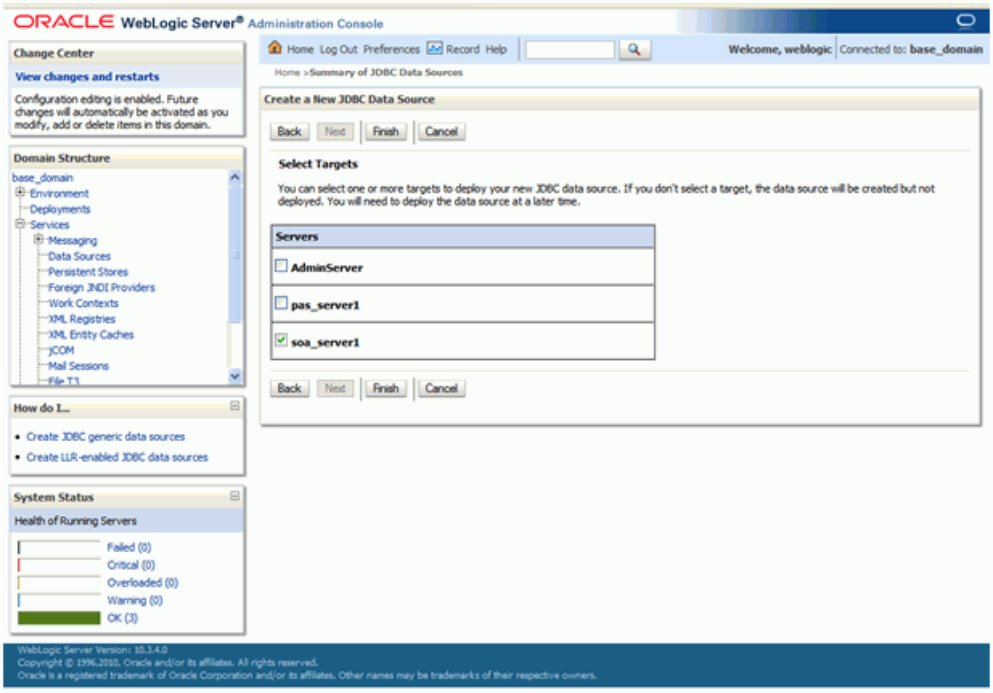
8. Click the Test Configuration button to verify the connection is successful. Once verified, click the Next button.

Oracle WebLogic Server Administration Console



9. Select **soa_server1** as the Target.

Oracle WebLogic Server Administration Console

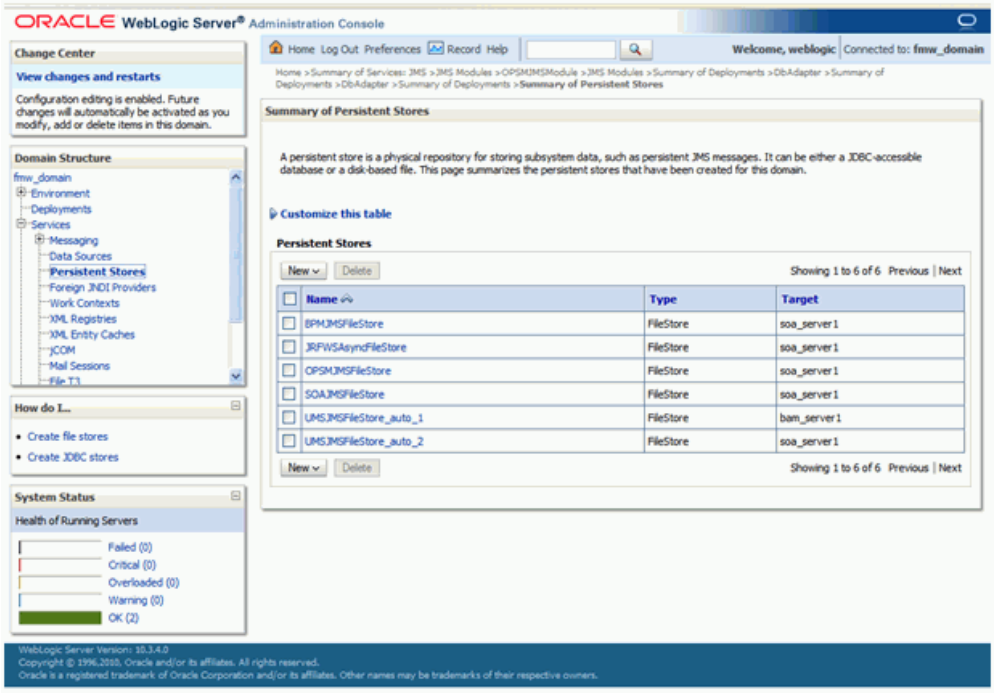


10. Click the Finish button.

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



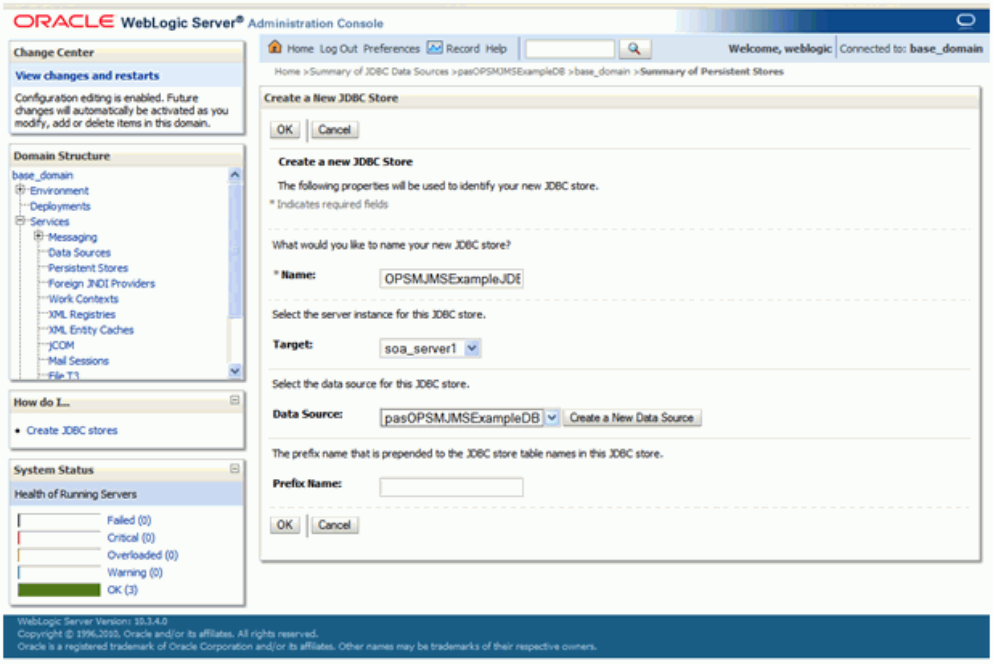
3. Click the New button and then click the Create JDBCStore.

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

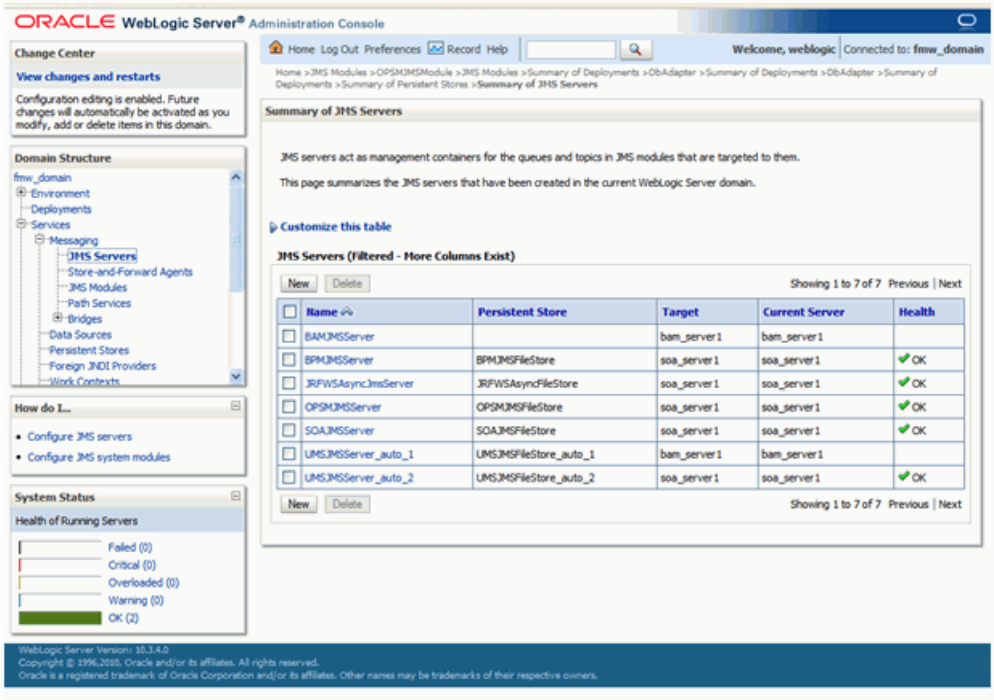


5. Click the OK button.

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



3. Click the New button.

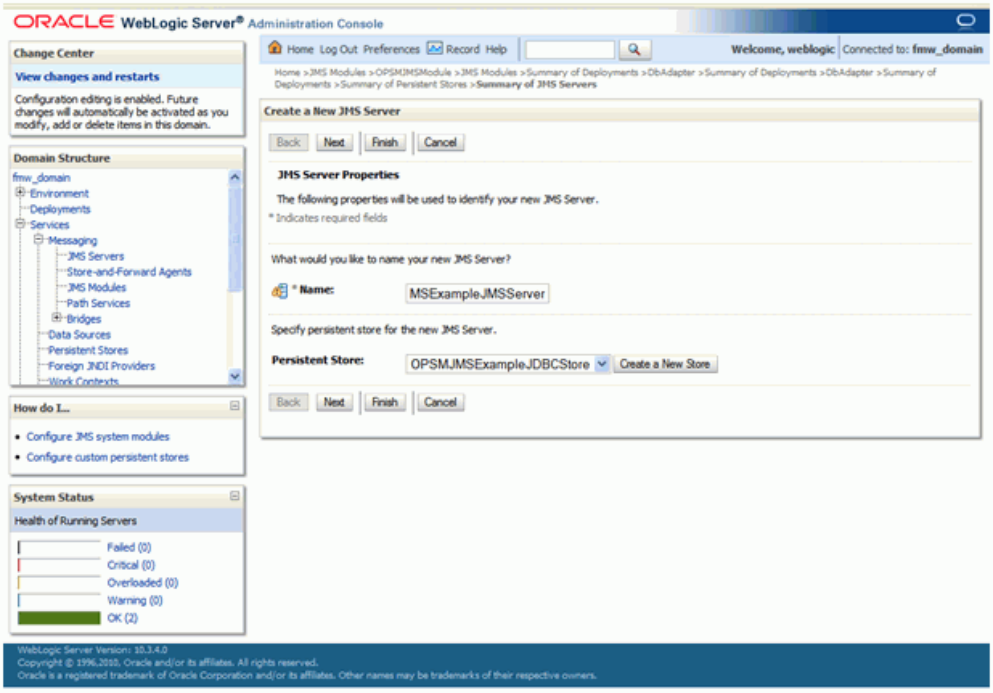
4. Enter the following:

   - 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.

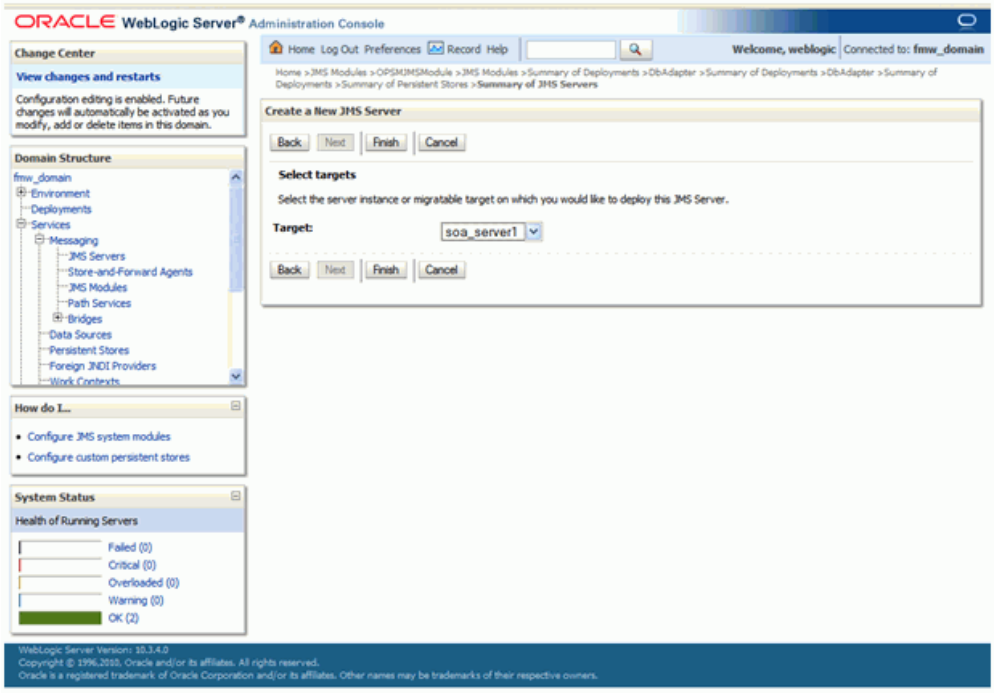
Oracle WebLogic Server Administration Console



5. Click the Next button.

6. Select **soa_server1** as the Target.

Oracle WebLogic Server Administration Console



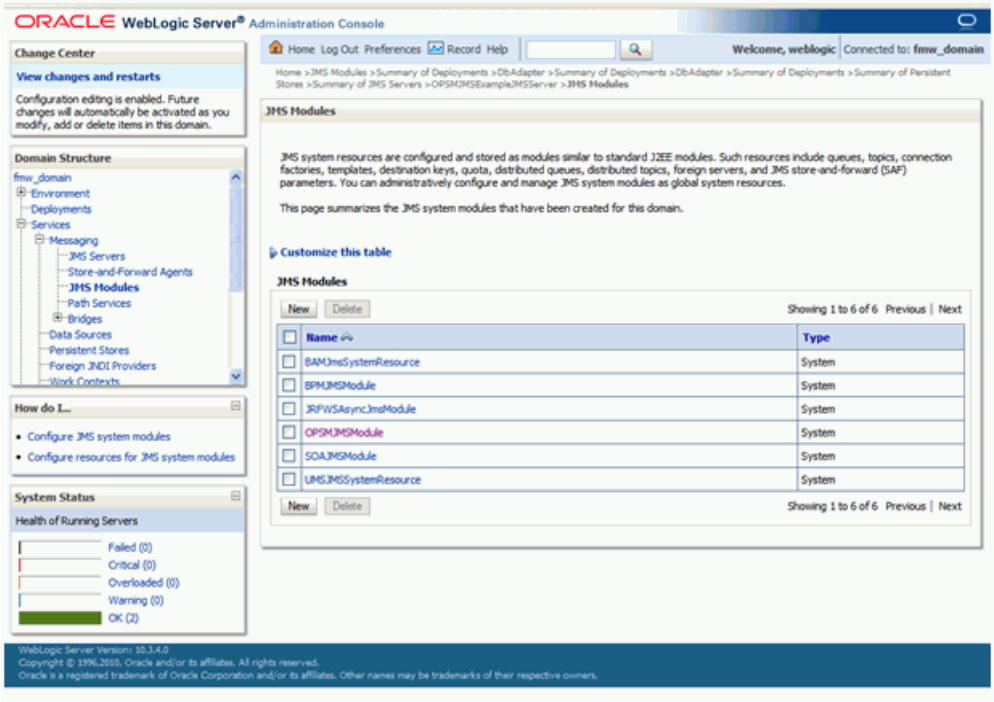
7. Click the Finish button.

To Create a JMS Module:

1. Log onto the Oracle WebLogic Server Administration Console.

2. Navigate to Services > Messaging > JMS Modules

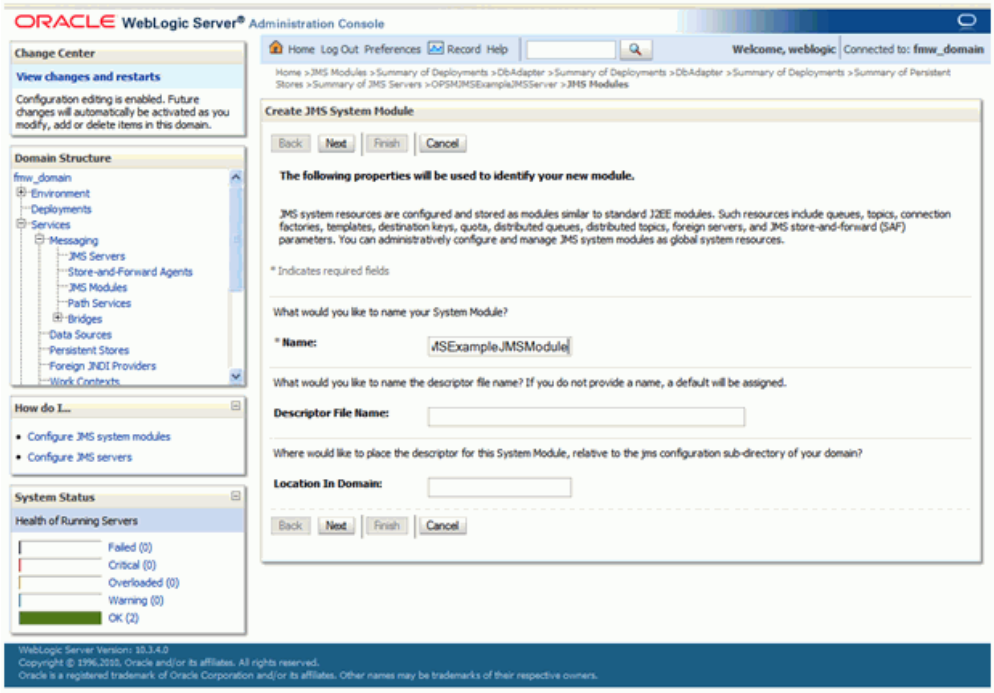
Oracle WebLogic Server Administration Console



3. Click the New button.

4. Enter **%BusinessObjectName%JMSModule** as the Name of the JMS Module.

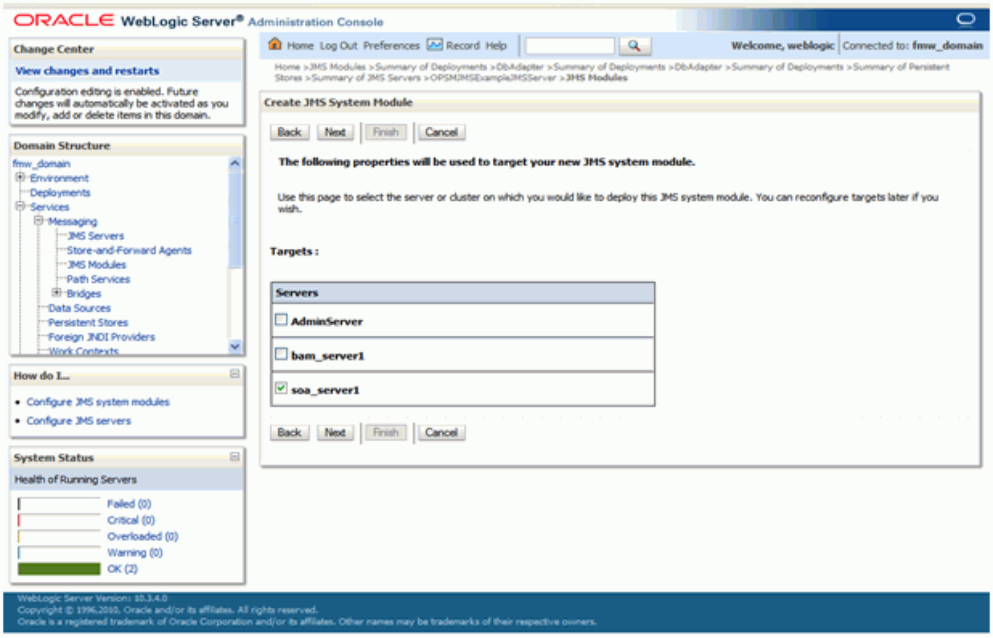
Oracle WebLogic Server Administration Console



5. Click the Next button.

6. Select **soa_server1** as the Target.

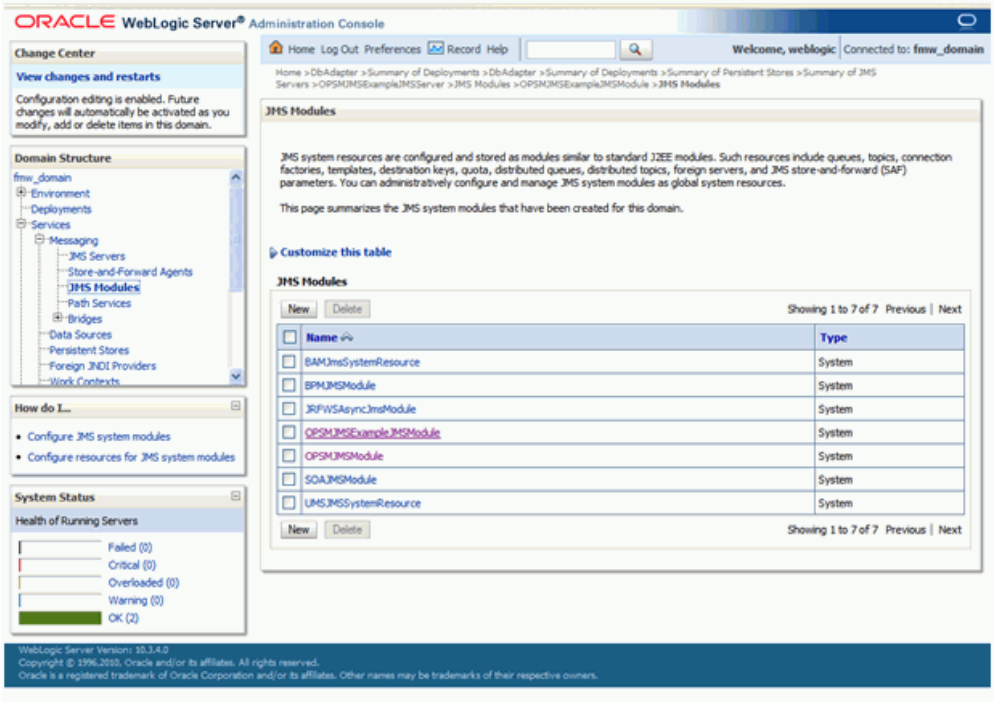
Oracle WebLogic Server Administration Console



7. Click the Next button.

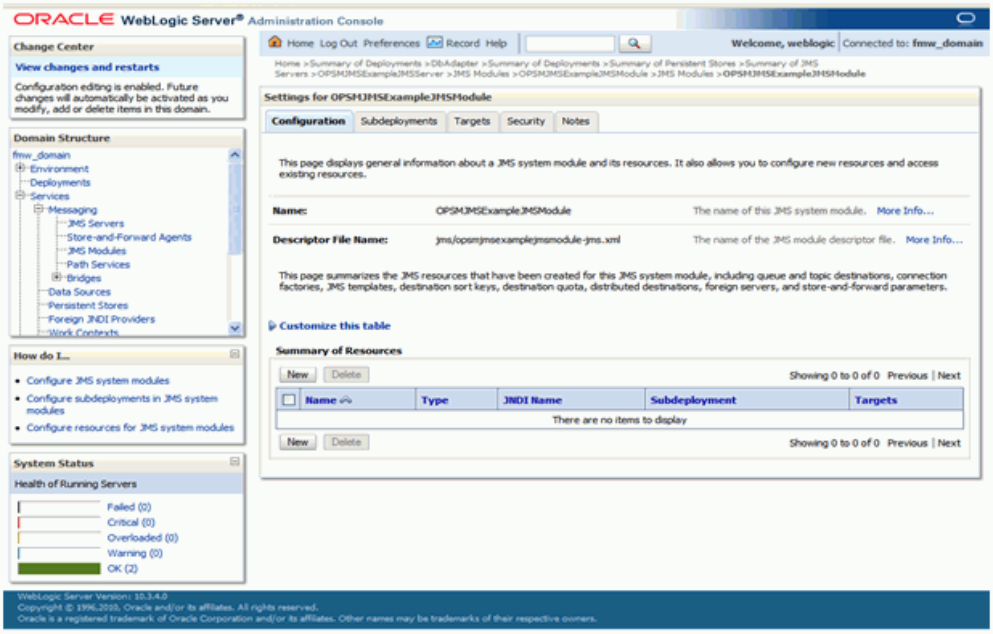
8. Click the Finish button.

Oracle WebLogic Server Administration Console



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

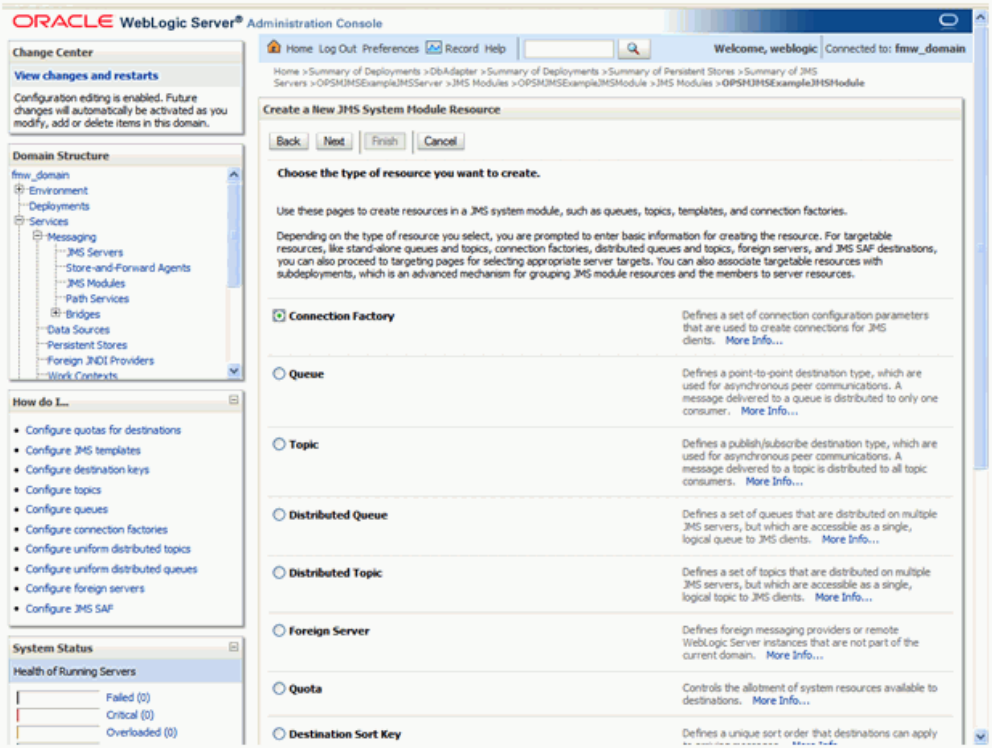
Oracle WebLogic Server Administration Console



10. Click the New button.

11. Select Connection Factory.

Oracle WebLogic Server Administration Console

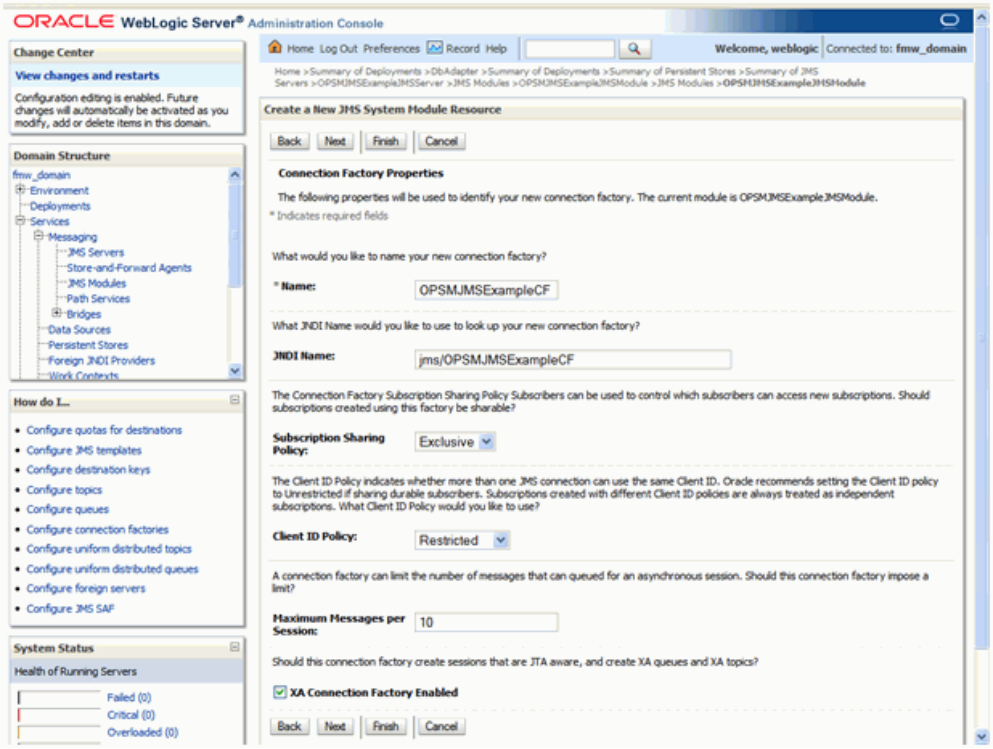


12. Click the Next button.

13. Enter the following:

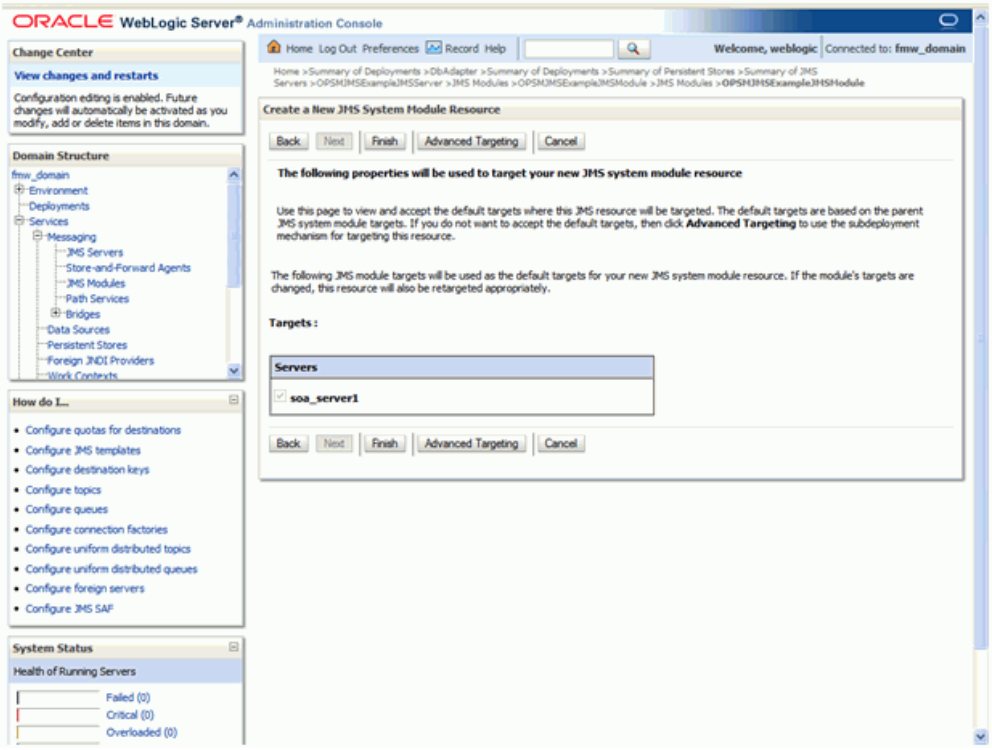
    - Enter **%BusinessObjectName%CF** as the Name of the JMS Connection Factory.
    - Enter **jms/%BusinessObjectName%CF** as the JNDI Name.

Oracle WebLogic Server Administration Console



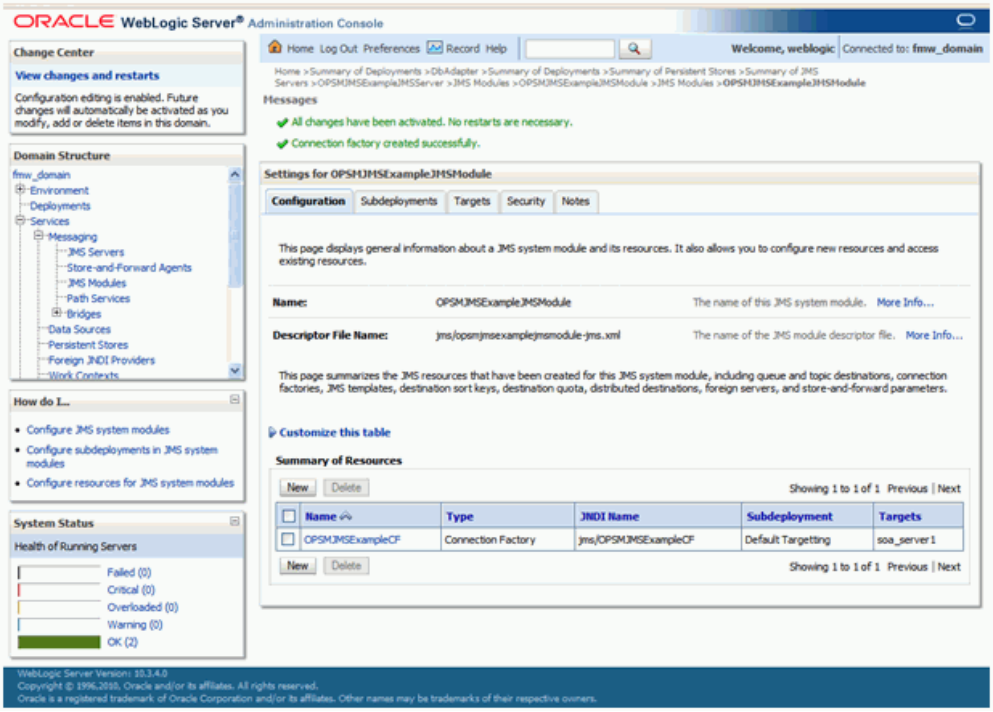
14. Click the Next button.

Oracle WebLogic Server Administration Console



15. Click the Finish button.

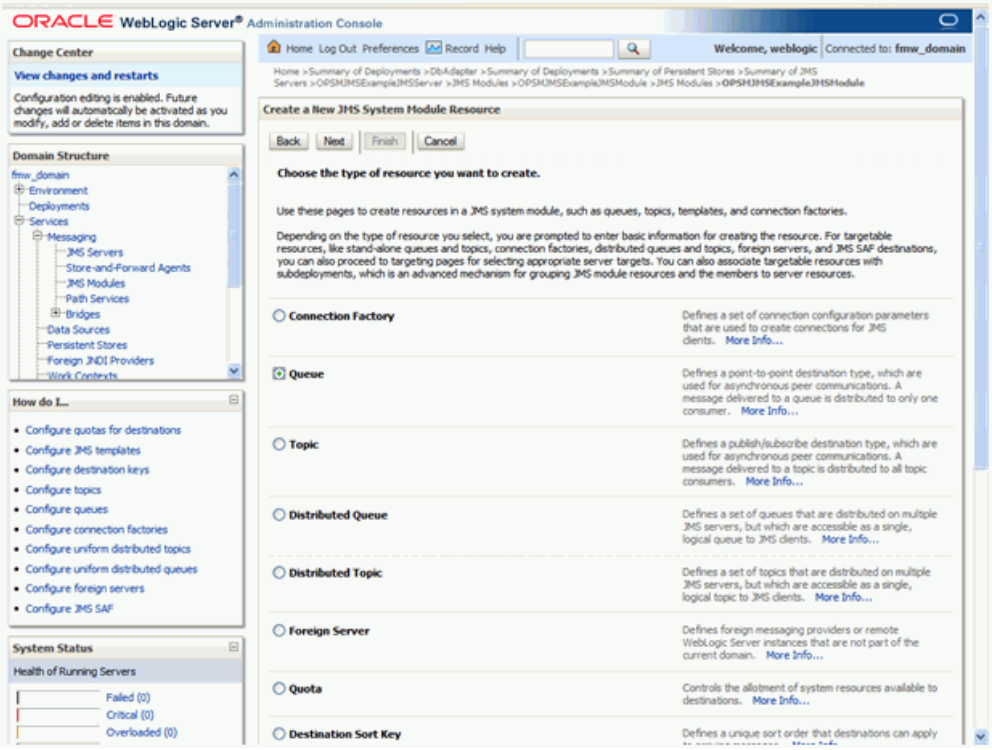
Oracle WebLogic Server Administration Console



16. Click the New button.

17. Select Queue.

Oracle WebLogic Server Administration Console



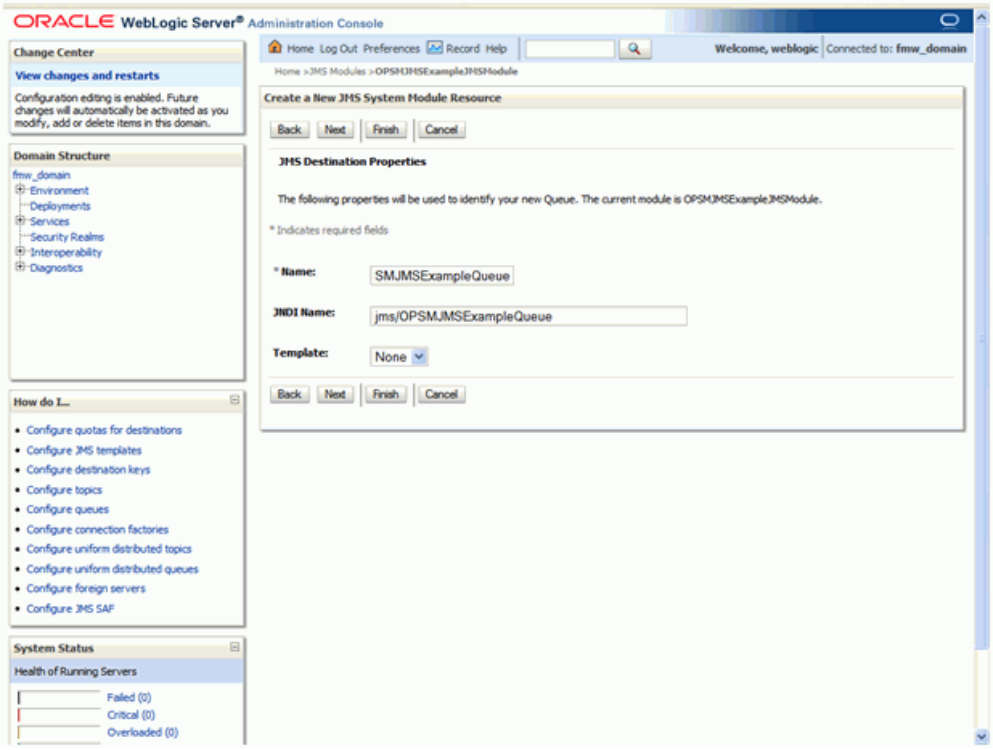
18. Click the Next button.

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.

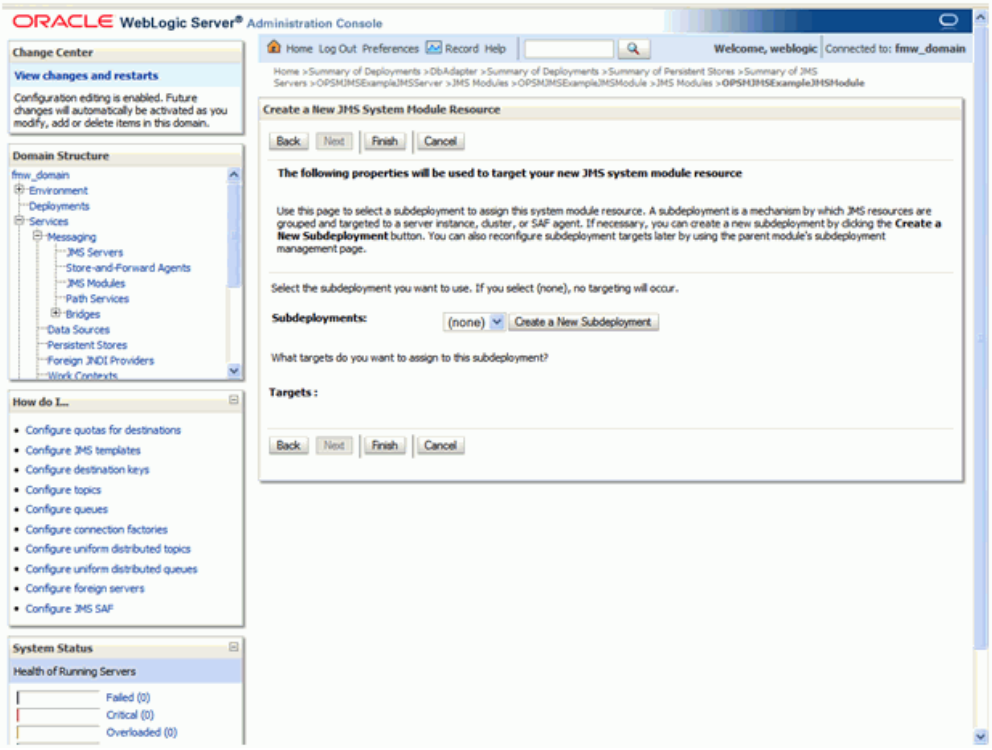
      Important: This name must be the same as the JNDI name used in the JMS Queue adapter in the PasTransmitSerialsViaWeb composite.

Oracle WebLogic Server Administration Console



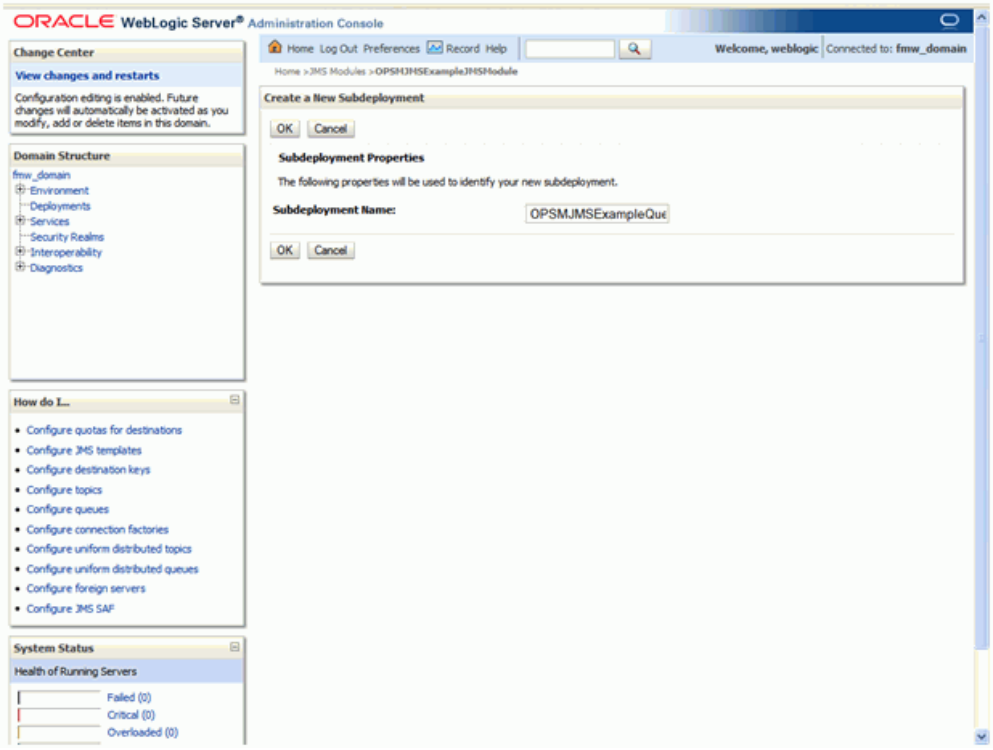
20. Click the Next button.

Oracle WebLogic Server Administration Console



21. Click the Create a New Subdeployment button.

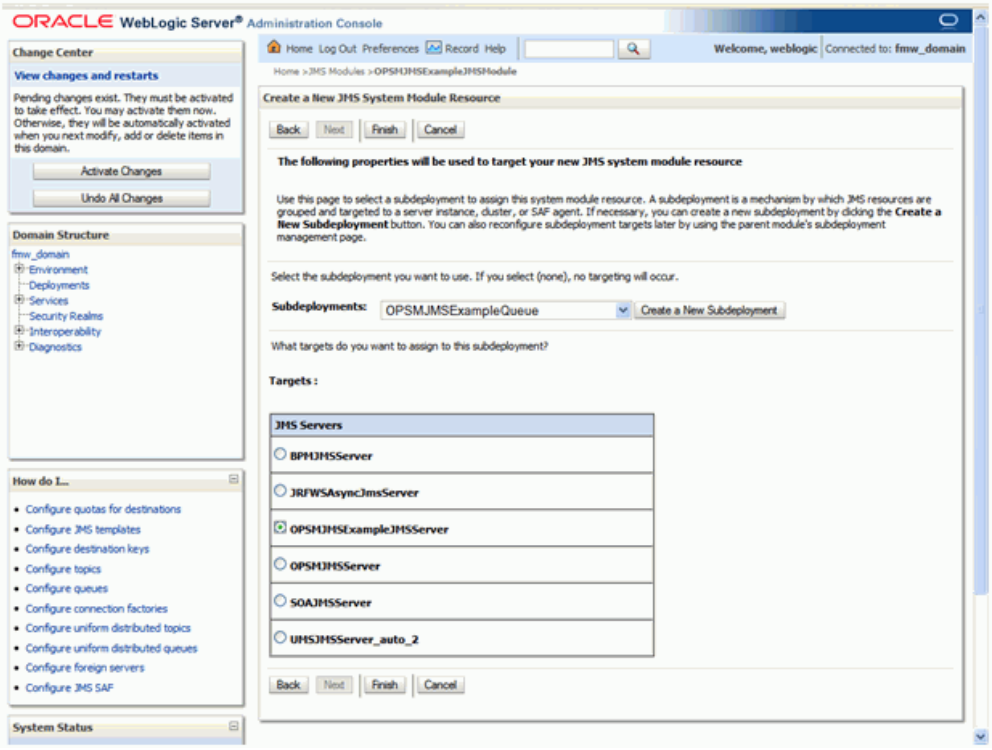
Oracle WebLogic Server Administration Console



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



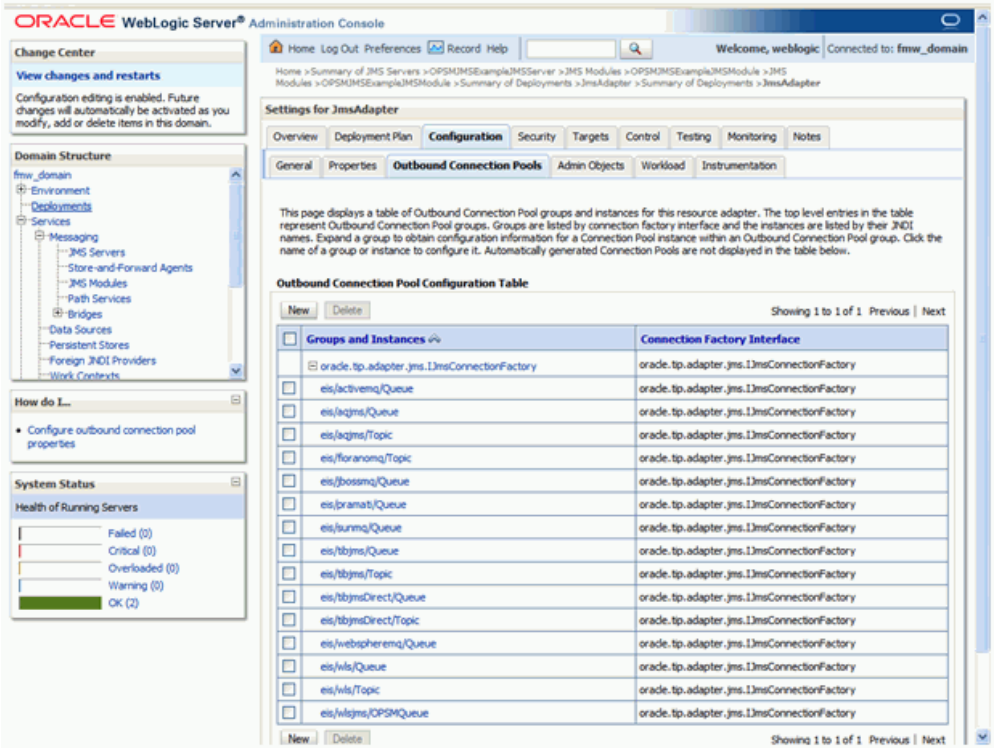
24. Click the Finish button.

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

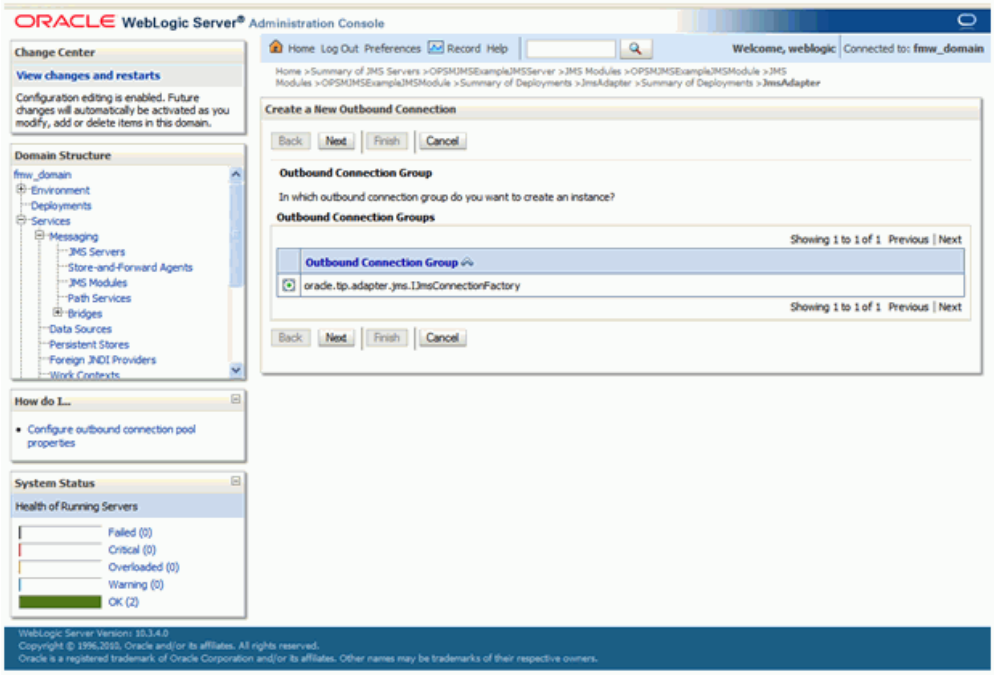
Oracle WebLogic Server Administration Console



3. Click the New button.

4. Select **oracle.tip.adapter.jms.IJmsConnectionFactory** as the Outbound Connection Group.

Oracle WebLogic Server Administration Console



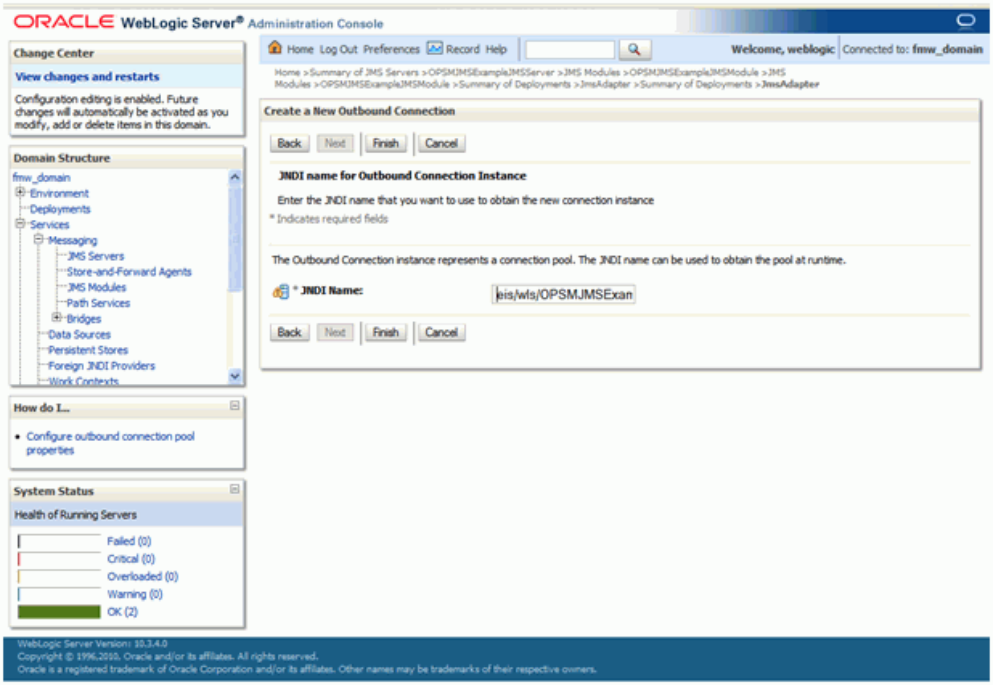
5. Click the Next button.

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.

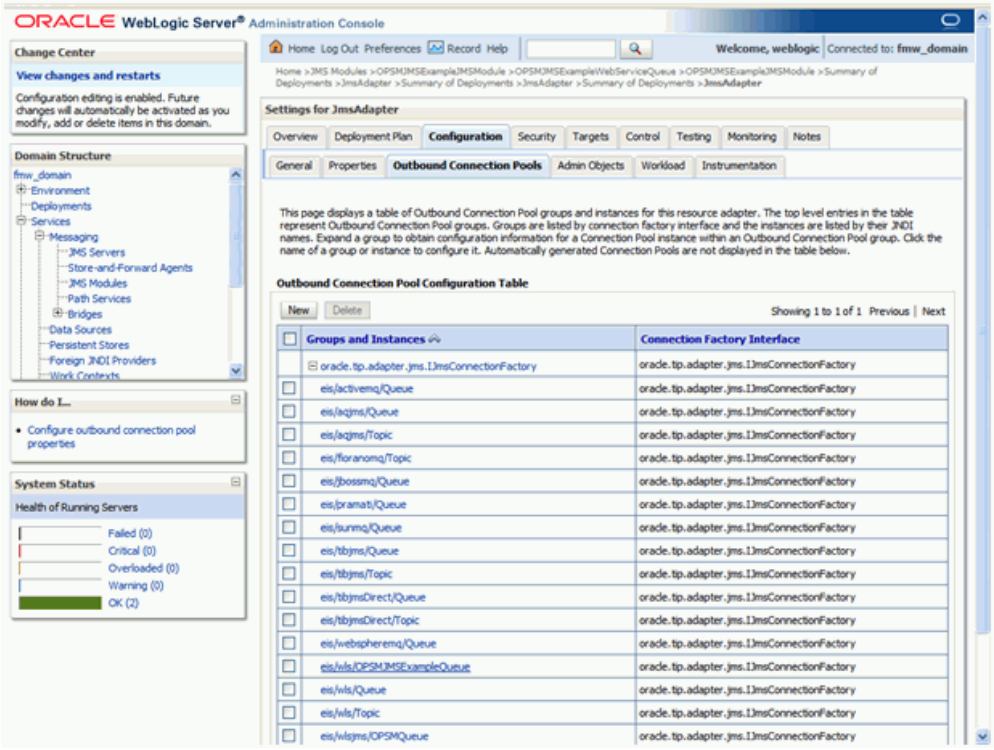
Oracle WebLogic Server Administration Console



7. Click the Finish button.

8. Navigate back to Deployments > JMSAdapter > Configuration > Outbound Connection Pools

Oracle WebLogic Server Administration Console

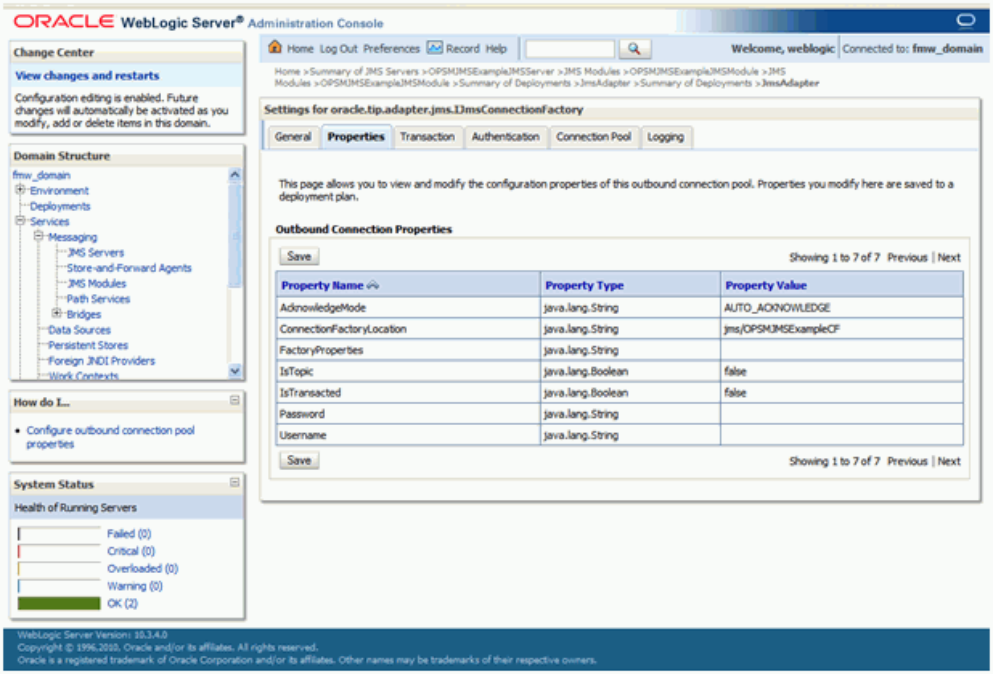


9. Click the **JNDI Name** that was created previously.

   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



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 Maintaining Serial Destinations and Destination Rules, *Oracle Pedigree and Serialization Manager Process Guide*.

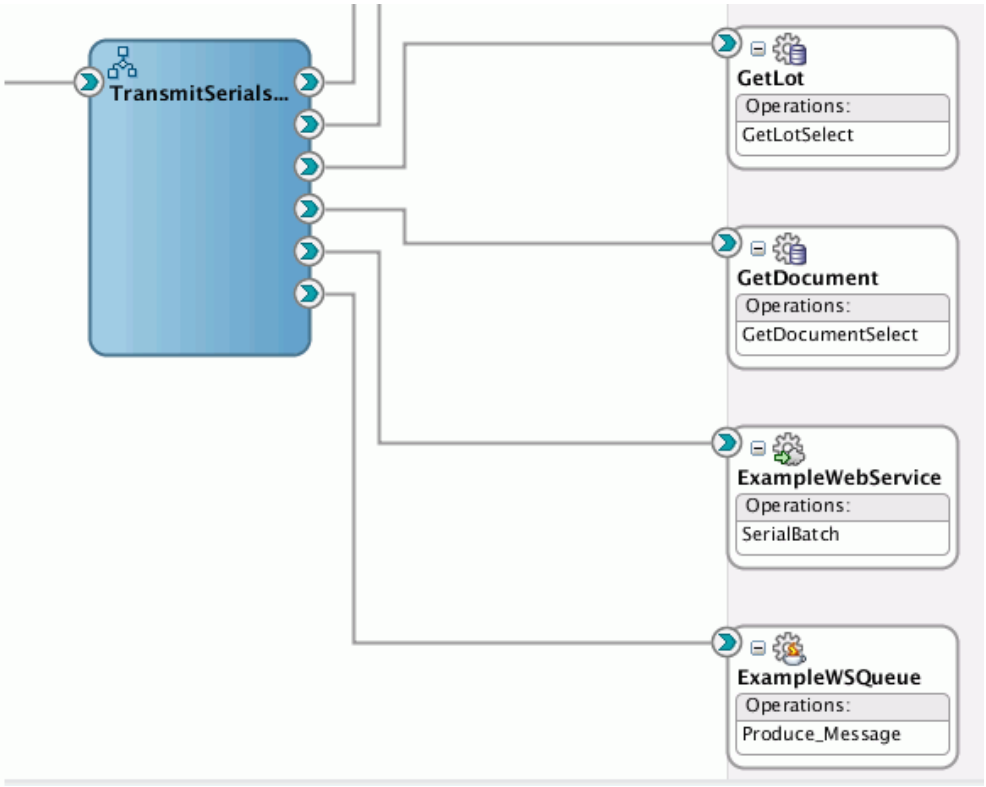
To Set Up a New JMS Destination in SOA:

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

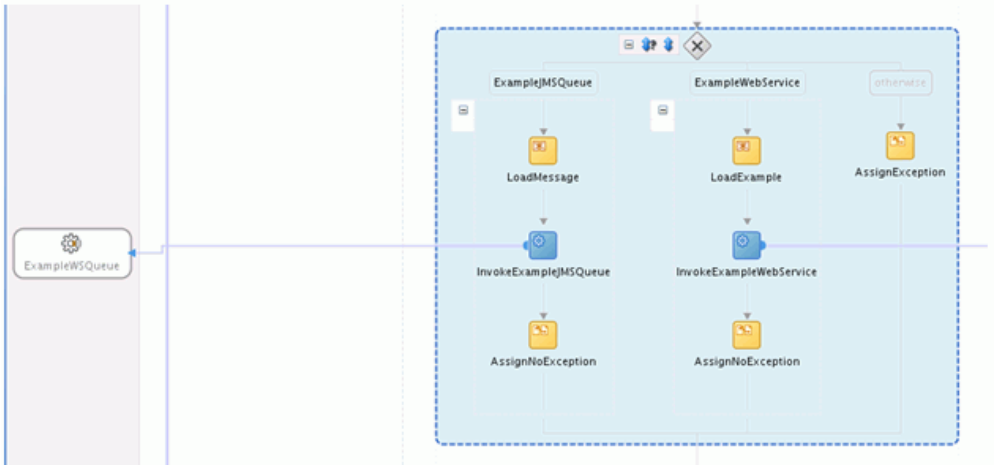


Notice that there is already a JMS Adapter called ExampleWSQueue.

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:

PasTransmitSerialsViaWeb\PasTransmitSerialsViaWeb.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:

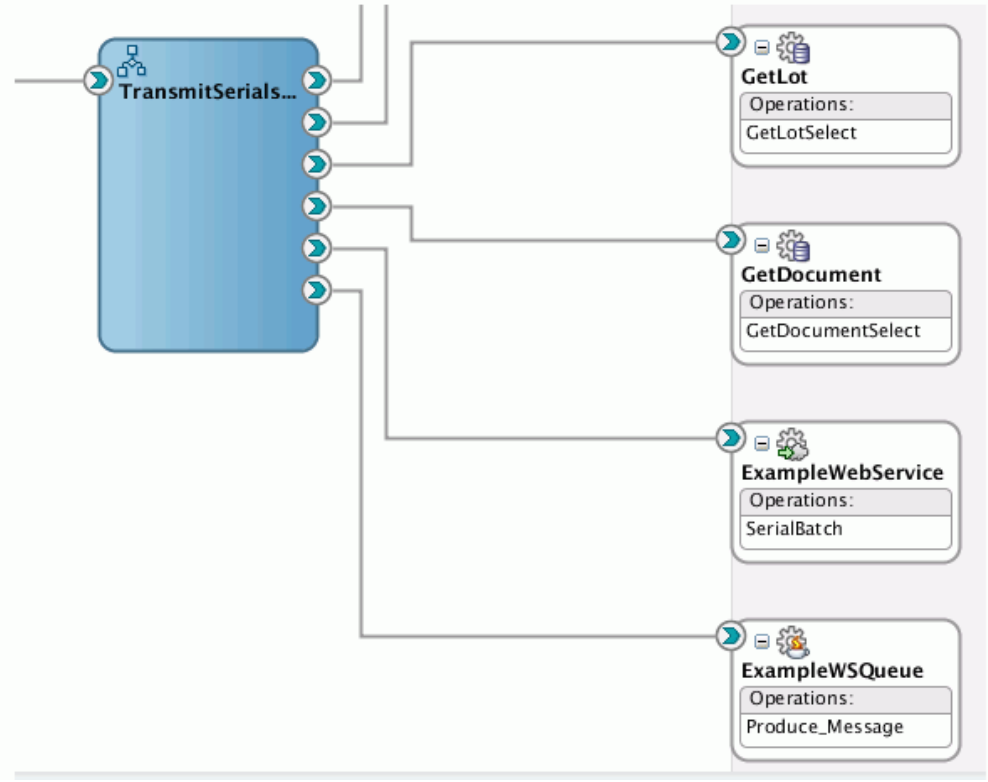
1. Navigate to your development environment and start up Oracle JDeveloper.

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.

PasTransmitSerialsViaWeb\Composite.xml



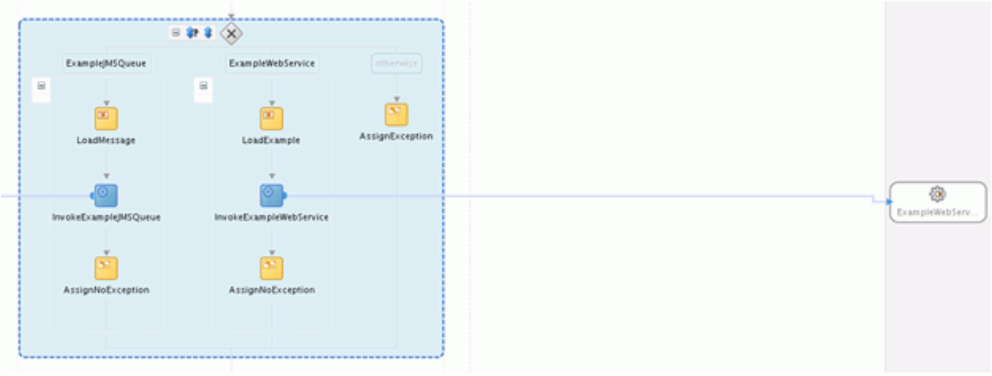
Notice that there is already a Web Service Adapter called ExampleWebService. Use it as an example.

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 Maintaining Serial Destinations and Destination Rules, *Oracle Pedigree and Serialization Manager Process Guide*.

Configuring a FTP Adapter

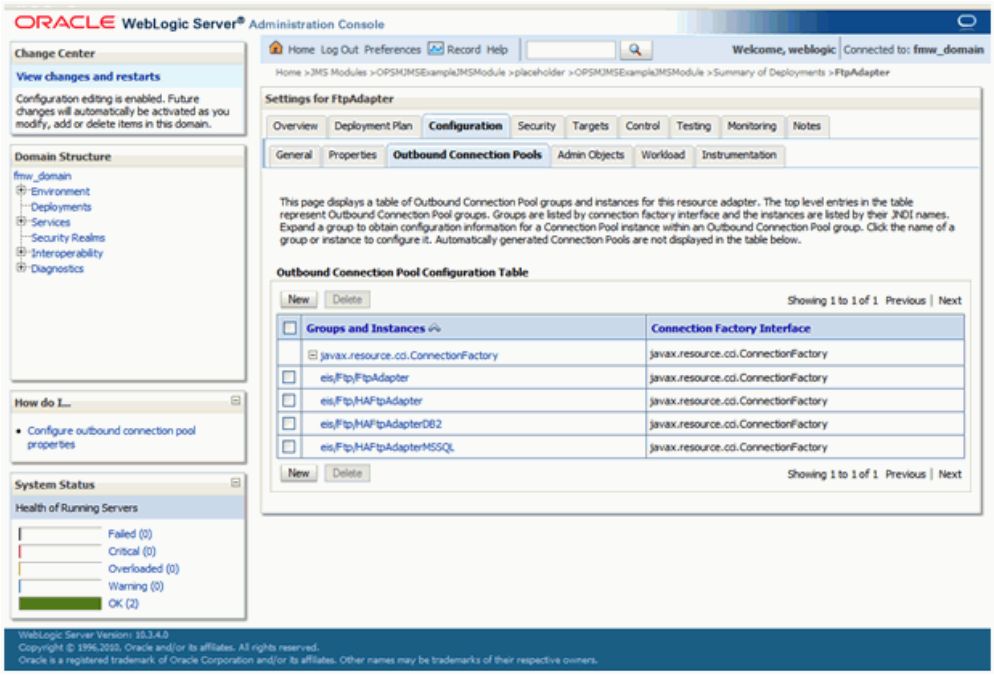
If the method of communication for the serial destination is File Exchange, then a connection factory must be created for the FTP Adapter.

To Create a Connection Factory:

1. Log onto the Oracle WebLogic Administration Console.

2. Navigate to Deployments > FTPAdapter > Configuration > Outbound Connection Pools

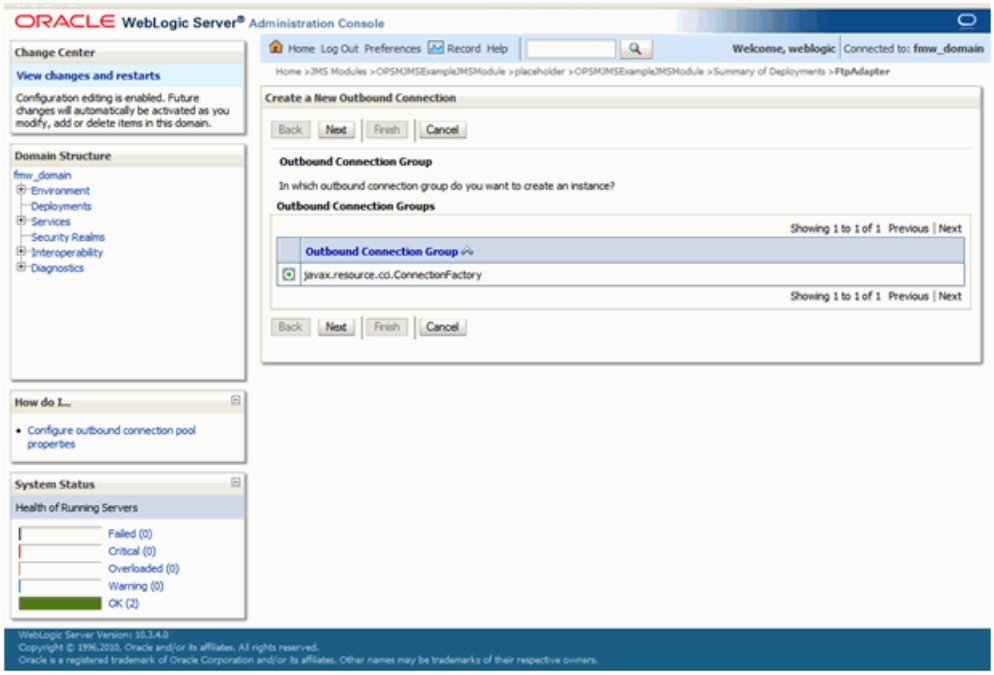
Oracle WebLogic Server Administration Console



3. Click the New button.

4. Select **javax.resource.cci.ConnectionFactory** as the Outbound Connection Group.

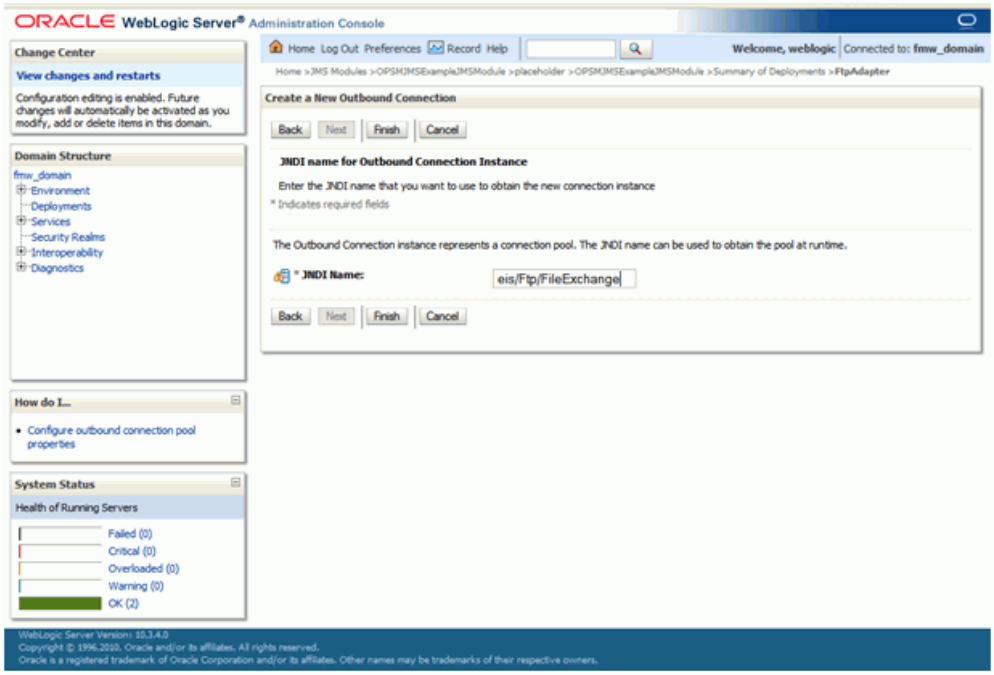
Oracle WebLogic Server Administration Console



5. Click the Next button.

6. Enter **eis/Ftp/FileExchange** as the JNDI Name.

Oracle WebLogic Server Administration Console

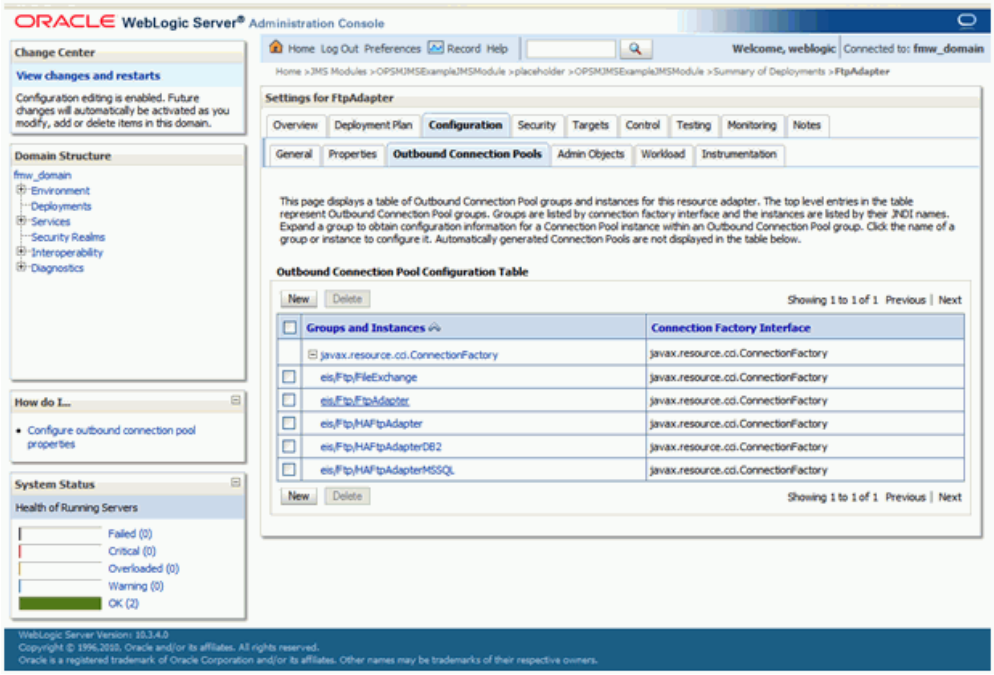


7. Save the deployment plan.

8. Click the Finish button.

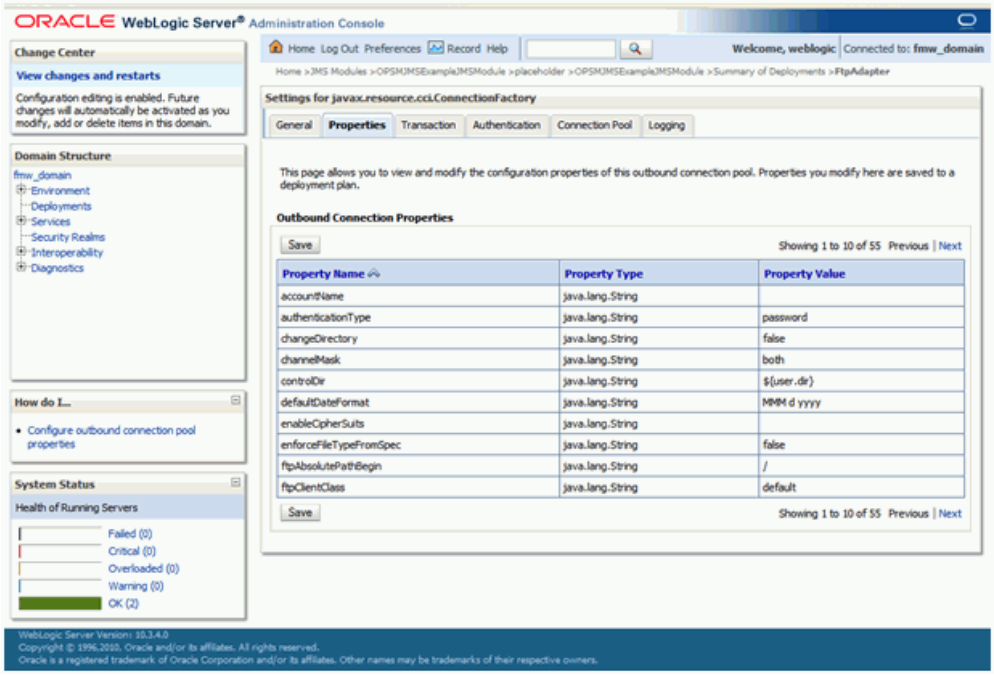
9. Navigate back to Deployments > FTPAdapter > Configuration > Outbound Connection Pools

Oracle WebLogic Server Administration Console



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

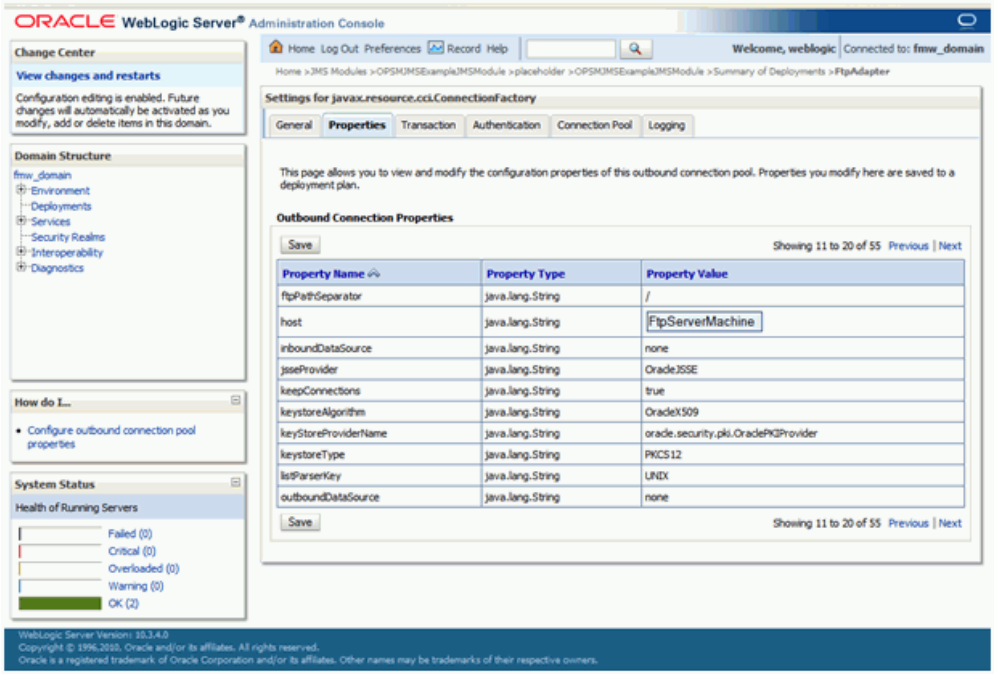
Oracle WebLogic Server Administration Console



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.

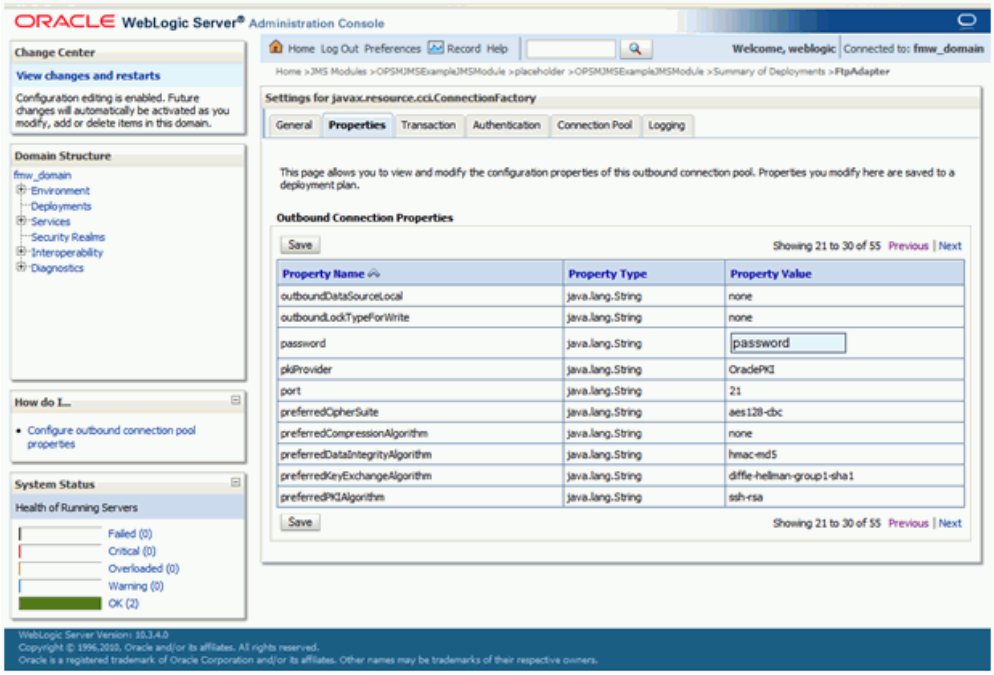
Oracle WebLogic Server Administration Console



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.

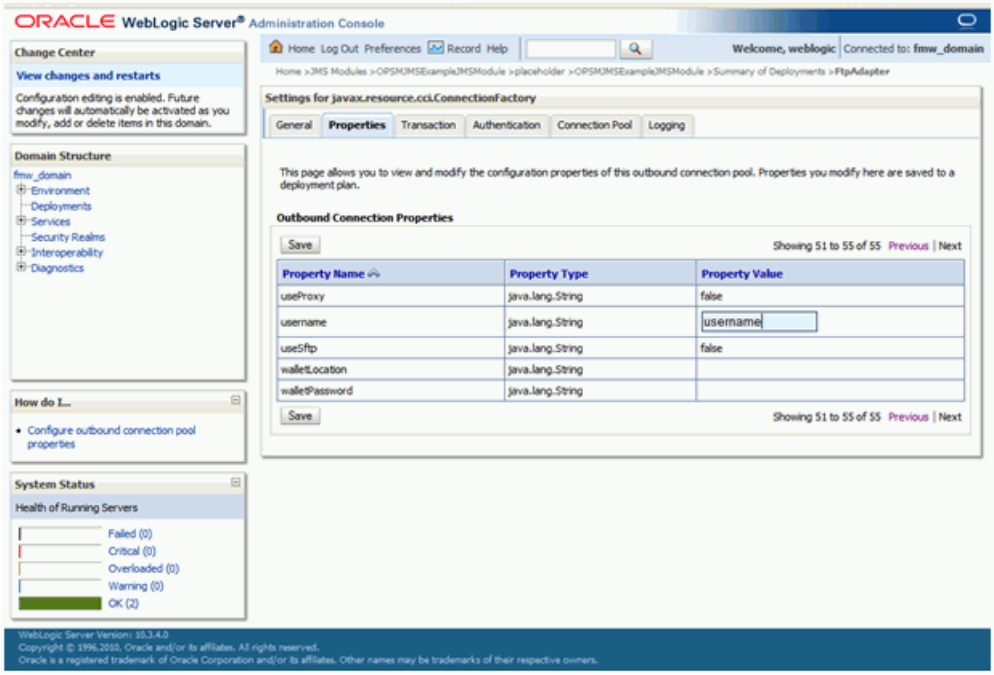
Oracle WebLogic Server Administration Console



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 Maintaining Serial Destinations and Destination Rules, *Oracle Pedigree and Serialization*

Manager Process Guide.

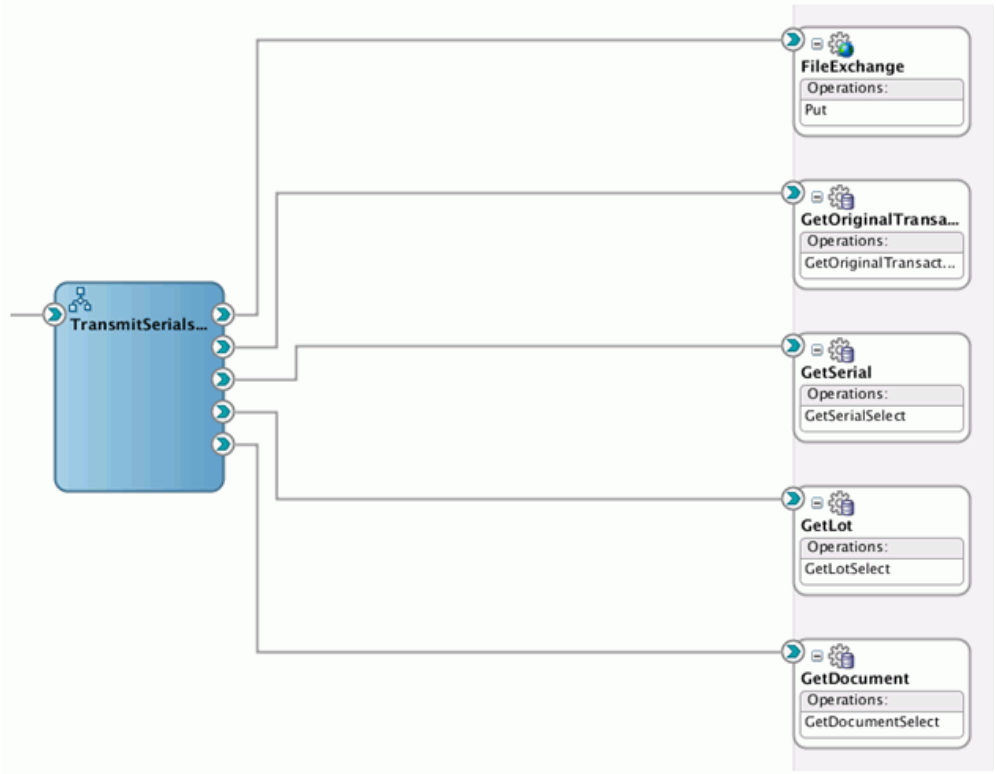
To Set Up a New File Exchange in SOA:

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.

PasTransmitSerialsViaFile\Composite.xml

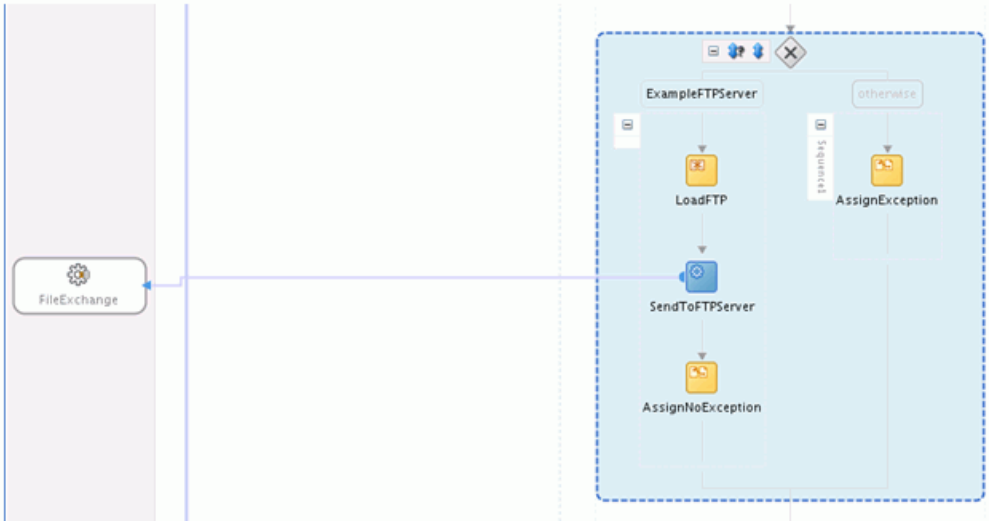


Notice that there is already a FTP Adapter called FileExchange. Use it as an example.

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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