

# Oracle® Enterprise Manager

Application Management Pack for Oracle Enterprise Taxation and Policy Management

Administration Guide

E28044-01

March 2012

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Application Management Pack for Oracle Enterprise Taxation and Policy Management extends Oracle Enterprise Manager Cloud Control to allow monitoring and management of Oracle Utilities Application Framework-based products on remote servers.

When Application Management Pack for Oracle Enterprise Taxation and Policy Management is deployed, the following features and capabilities are available:

- Product discovery
- Environment assessment
- Environment cloning
- Patch identification and installation
- Patch migration from one environment to another
- View product configuration files

This document describes the various configuration and operational activities available to administrators of Application Management Pack for Oracle Enterprise Taxation and Policy Management.

## Related Documentation and Resources

The **Help** menu provides links to **Enterprise Manager Help**, **Oracle Online Documentation**, **Oracle Online Forums**, and the **Oracle Technology Network (OTN)**, where the complete documentation for Oracle Enterprise Manager 12c is available.

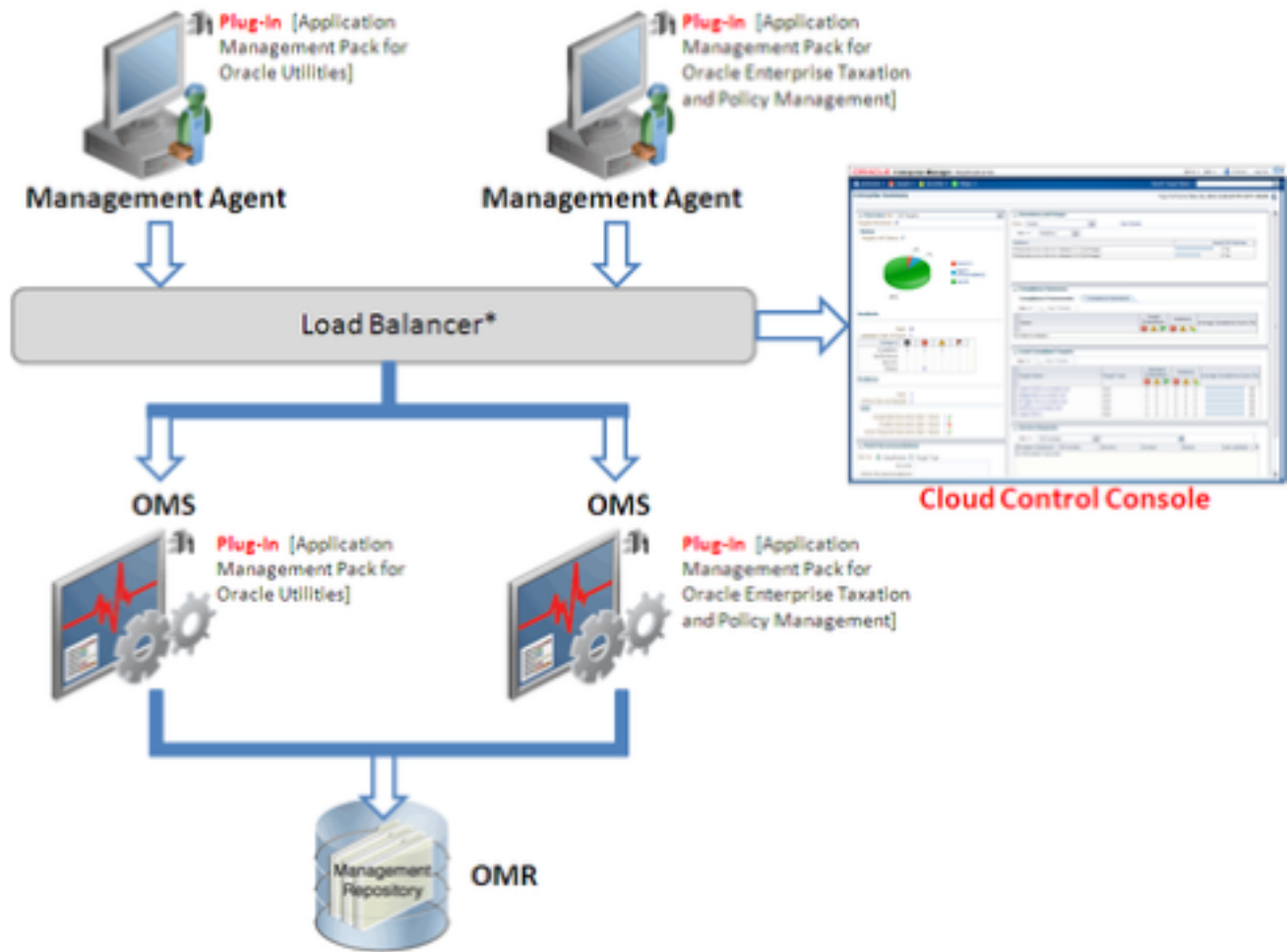
This document and other Application Management Pack for Oracle Enterprise Taxation and Policy Management-specific documentation is available in the **Oracle Tax Applications** section of the Oracle Software Delivery Cloud at <https://edelivery.oracle.com>.

Additional information on Oracle Enterprise Manager-specific features and functionality relating to this product is available in the [Enterprise Manager Cloud Control Documentation](http://docs.oracle.com/cd/E24628_01/index.htm) ([http://docs.oracle.com/cd/E24628\\_01/index.htm](http://docs.oracle.com/cd/E24628_01/index.htm)).

# Architecture

## Plug-in Architecture

The following diagram illustrates the Application Management Pack for Oracle Enterprise Taxation and Policy Management architecture.



*Figure 1: Architecture*

**Note:** \* The load balancer and multiple OMSes depicted in the diagram above are included only to indicate how a sample Enterprise Manager Cloud Control architecture would look in a large organization. They are not a prerequisite or a requirement for an Enterprise Manager system installation. If you do not have a load balancer, then the Management Agents communicate directly with the OMSes.

## Plug-in Functionality

## Product Discovery

Any manageable entity is of a *target type*. A specific instance of a target type is a target. For example, *sf-sunapp-00.us.oracle* would be a target of target type *host*; *sf-mydb-00:1521/CD0000SF* would be a target of target type *database*.

For extensibility purposes, Application Management Pack for Oracle Enterprise Taxation and Policy Management provides a discovery framework and the functionality to monitor an Oracle Enterprise Taxation Environment target type (an installation of the Oracle Utilities Application Framework (OUAF) and/or OUAF-based products).

## High-Level View of the Discovery Process

The discovery process involves Oracle Utilities Application Framework (OUAF)-based products. Each environment comprises the files necessary for the operation of the web application, the database, and the threadpool worker. Thus, each OUAF-based environment can be modeled as an Enterprise Manager target that contains information about the following:

- Host (the machine on which the application server runs)
- Installed products and releases
- Web application
- Database host (the machine on which the database runs)
- Database
- Threadpool worker

## Environment Discovery

In order for a target to be monitored, it must first be discovered and promoted. Discovery is the process of making a target instance known to OEM. Once this has been done, the target needs to be promoted from an unmanaged to a managed state.

Availability of the environment as a whole is evaluated based on the status of the application server. Other parts of the system that are being monitored, such as the database and threadpool worker, may be up "Up" but the target's overall status is based on whether or not the application server is available via http.

To discover target environments:

1. Log in to Enterprise Manager.
2. Choose **Setup > Add target > Configure Auto Discovery**.

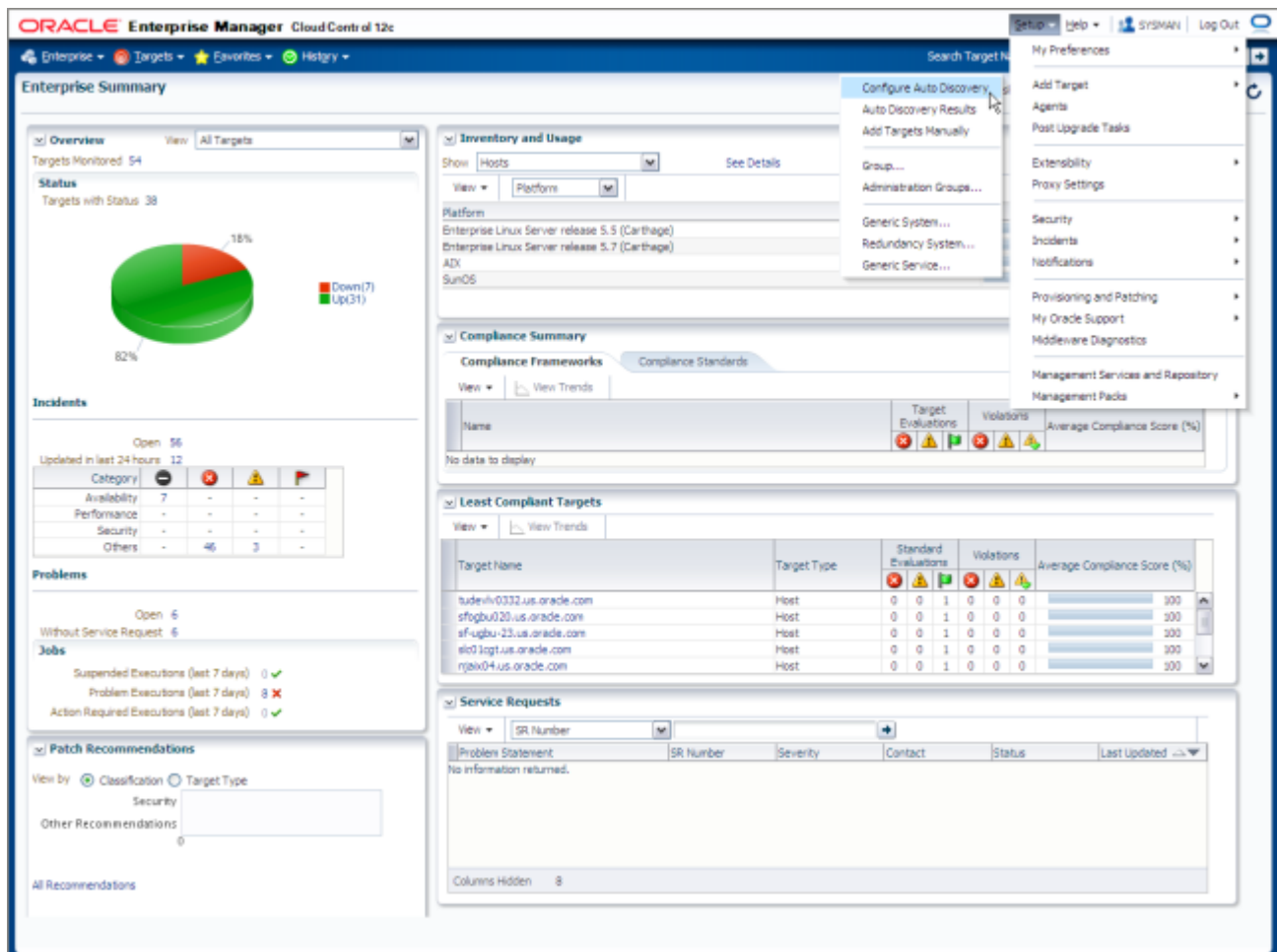


Figure 2: Selecting Auto Discovery

- On the **Configure Auto Discovery** page, select the **Application Management Pack for Oracle Enterprise Taxation and Policy Management** module in the **Discovery Module** list, then click the item's **Configure** icon.

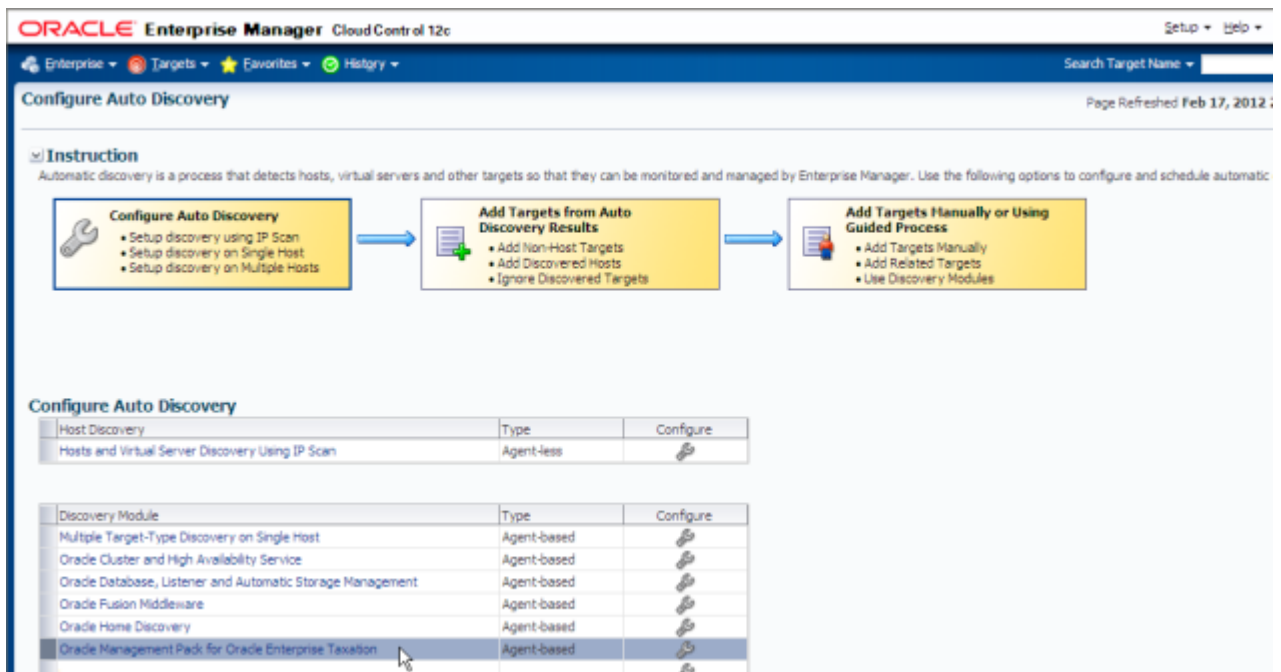


Figure 3: Configuring Auto Discovery

4. Ensure that the target host is on the list. If the target host is not on the list, add it by clicking the 'Add host' button and opening the Add Host dialog. Choose the host and click OK.

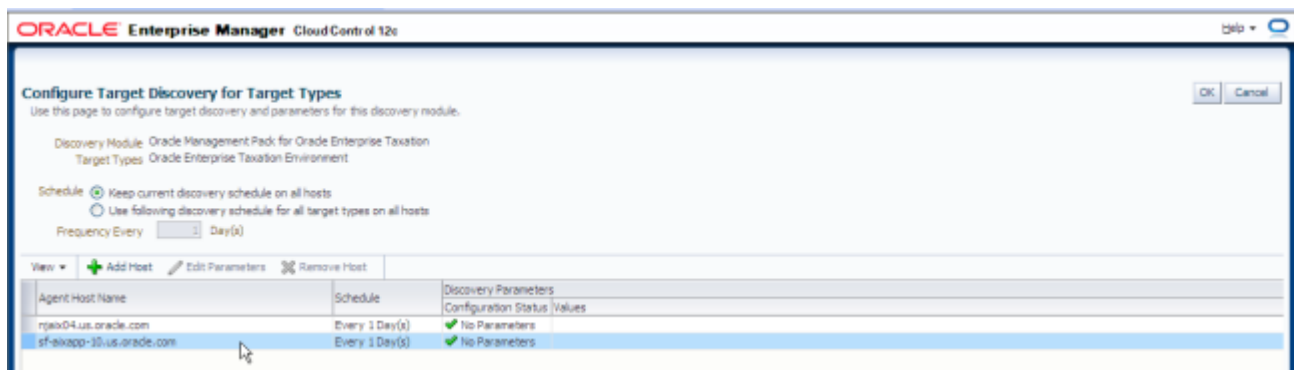


Figure 4: The Add Host dialog

5. Reopen the **Configure Auto Discovery** page, choose **Multiple Target-Type Discovery on Single Host**, and click the **Configure** button.

ORACLE Enterprise Manager Cloud Control 12c Setup Help

Enterprise Targets Favorites History Search Target Name

### Configure Auto Discovery

Page Refreshed Feb 17, 2012

**Instruction**  
Automatic discovery is a process that detects hosts, virtual servers and other targets so that they can be monitored and managed by Enterprise Manager. Use the following options to configure and schedule automatic discovery.

**Configure Auto Discovery**

- Setup discovery using IP Scan
- Setup discovery on Single Host
- Setup discovery on Multiple Hosts

→

**Add Targets from Auto Discovery Results**

- Add Non-Host Targets
- Add Discovered Hosts
- Ignore Discovered Targets

→

**Add Targets Manually or Using Guided Process**

- Add Targets Manually
- Add Related Targets
- Use Discovery Modules

**Configure Auto Discovery**

Host Discovery	Type	Configure
Hosts and Virtual Server Discovery Using IP Scan	Agent-less	

Discovery Module	Type	Configure
Multiple Target-Type Discovery on Single Host	Agent-based	
Oracle Cluster and High Availability Service	Agent-based	
Oracle Database, Listener and Automatic Storage Management	Agent-based	
Oracle Fusion Middleware	Agent-based	
Oracle Home Discovery	Agent-based	

**Figure 5: Choosing Multiple Target-Type Discovery on Single Host**

The **Target Discovery (Agent Based)** window opens.

- Choose the host to discover and press the **Run Discovery Now** button.

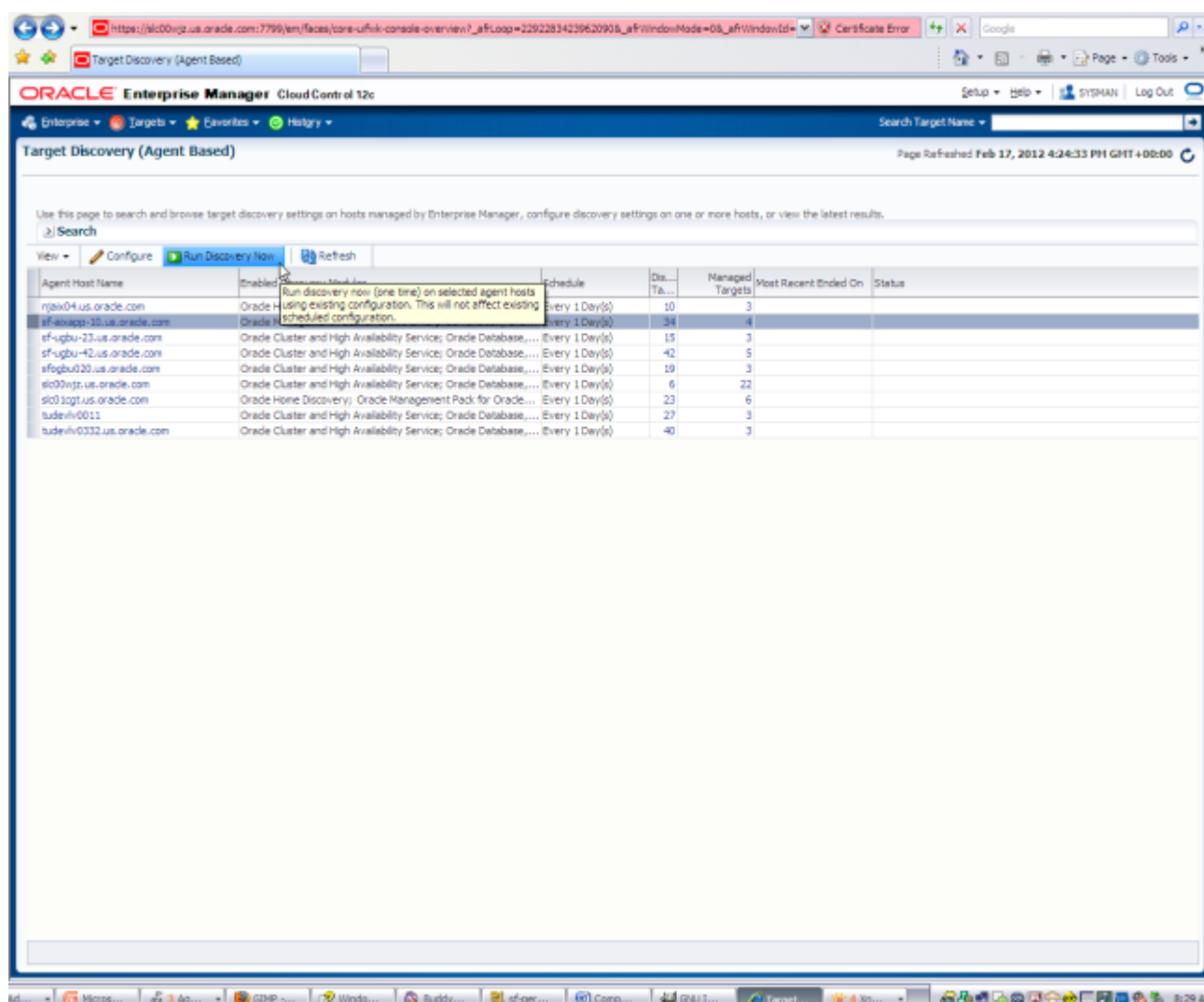


Figure 6: Choosing a host to discover

A confirmation dialog appears on successful discovery of the host.

7. Click **Close** to dismiss the confirmation dialog.

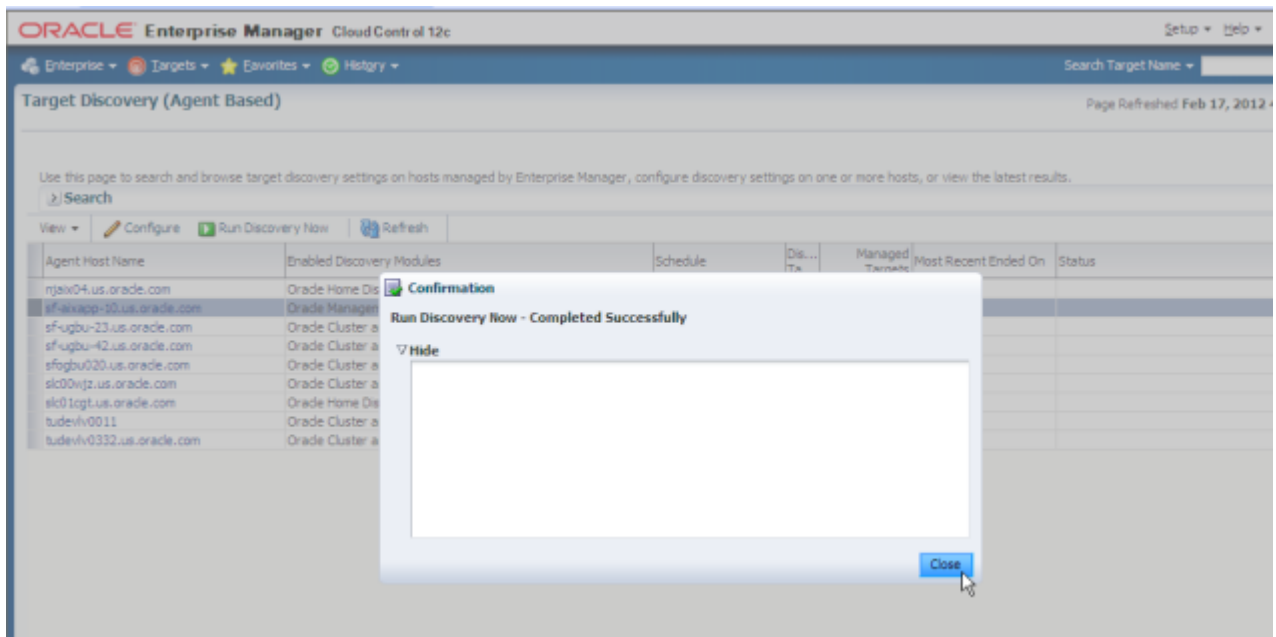


Figure 7: Host discovery confirmation dialog

## Promoting Targets

To promote targets so they can be managed:

1. Log in to Enterprise Manager.
2. Choose **Setup > Auto Discovery Results**.

The **Target Discovery (Agent Based)** window opens.

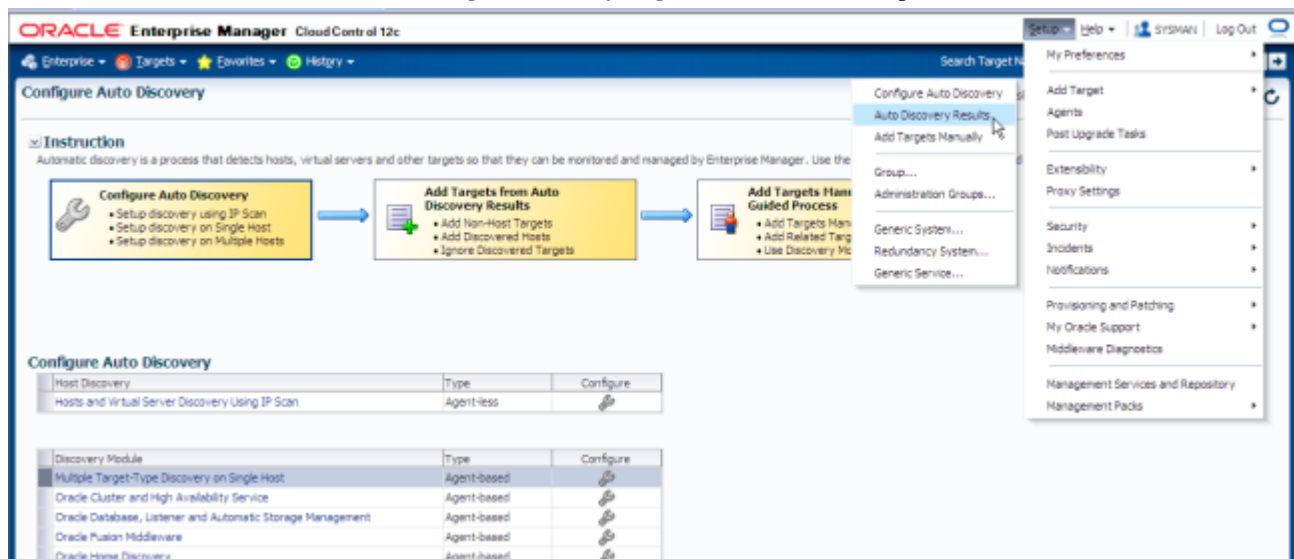


Figure 8: Target Discovery (Agent Based) window

3. Click the **Non-Host Targets** tab.



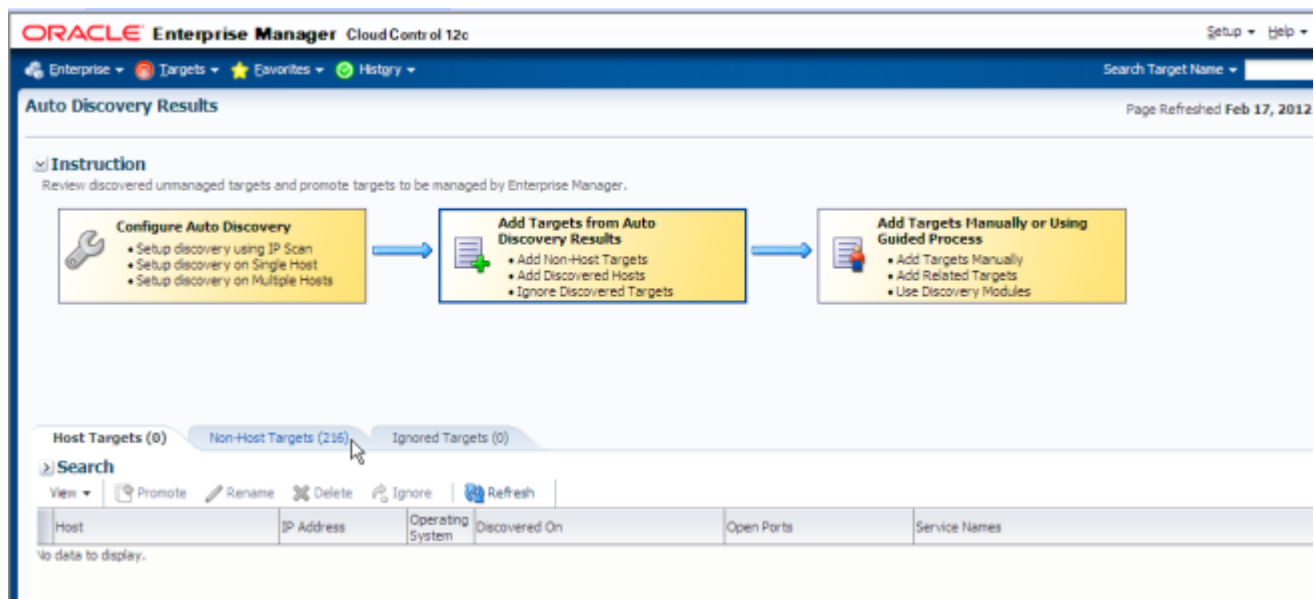


Figure 9: Auto Discovery Results window

4. In the **Results** list, select the target environment you want to promote from an *Unmanaged* to *Managed* state, then press the **Promote** button.

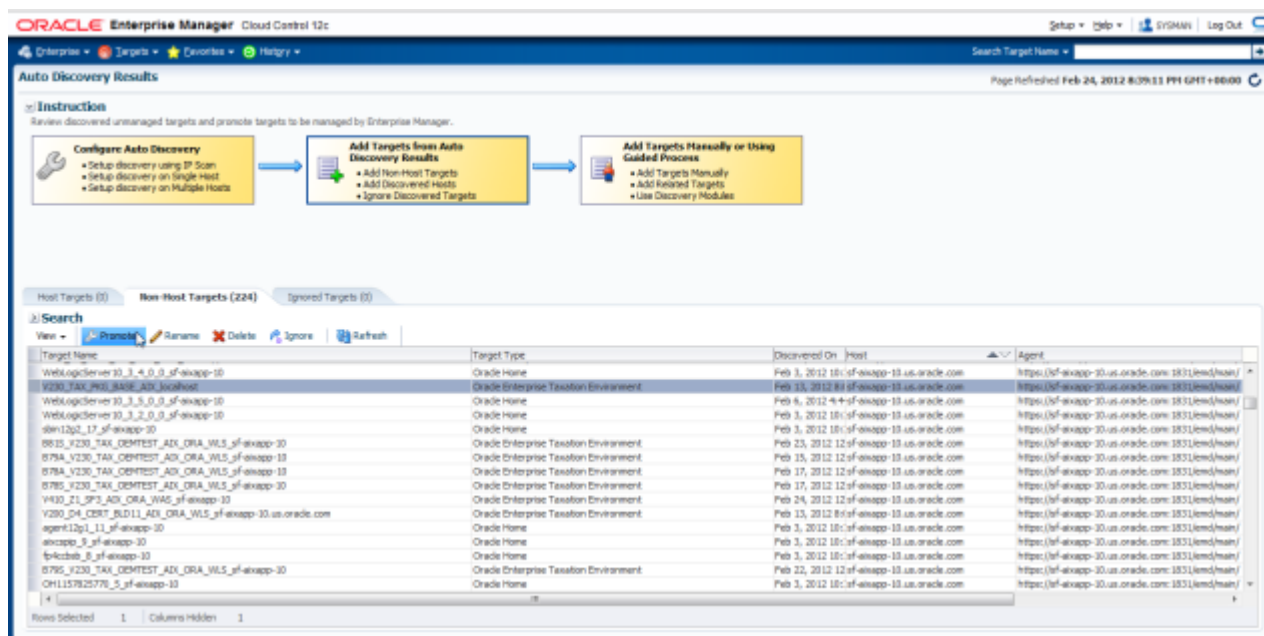


Figure 10: Promoting a target environment

5. The **Promote Unmanaged Target** window appears, displaying properties for the target. Press the **Promote** button.

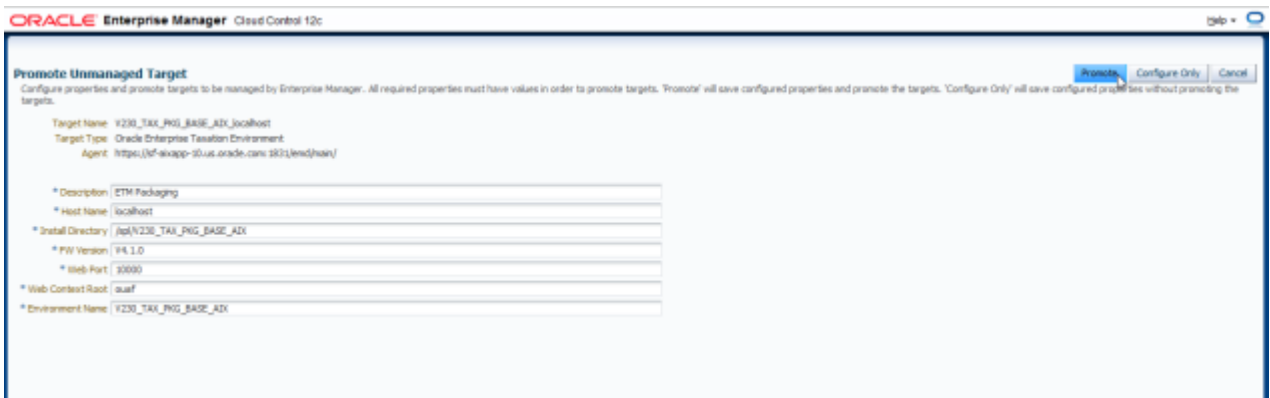


Figure 11: Unmanaged target properties

A confirmation dialog appears when the promotion is successful.

6. Click **Close** to dismiss the confirmation dialog.

## Viewing a Target's Home Page

To view a target's home page:

1. Log in to Enterprise Manager.
2. Click **Targets > All Targets**.

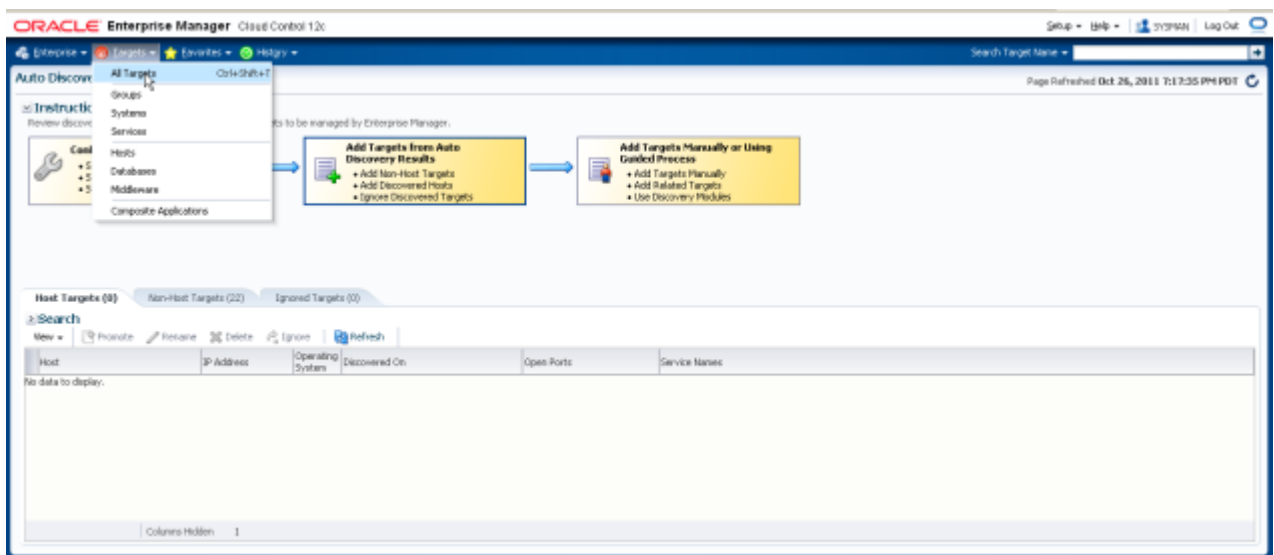


Figure 12: Viewing all targets

3. To view its home page, locate and double-click a target from the sortable and searchable **All Targets** list.

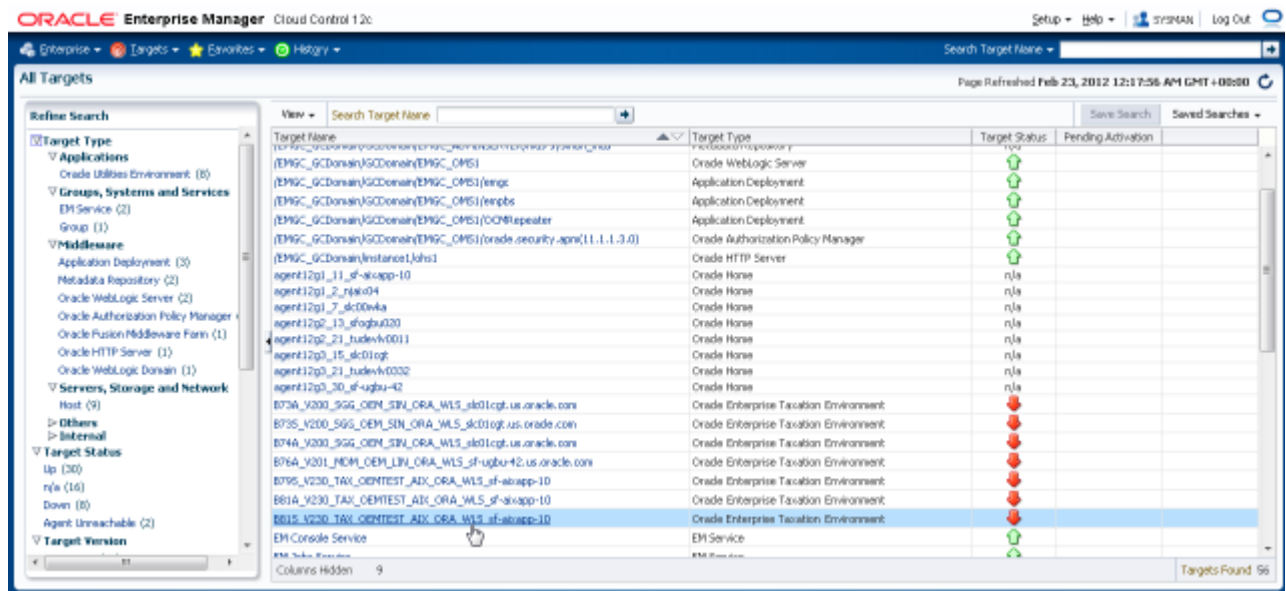


Figure 13: All Targets list

## Target Home Page Components

A target home page is divided into regions. Three of these regions are provided in the default interface provided by Oracle Enterprise Manager, and four are custom regions.

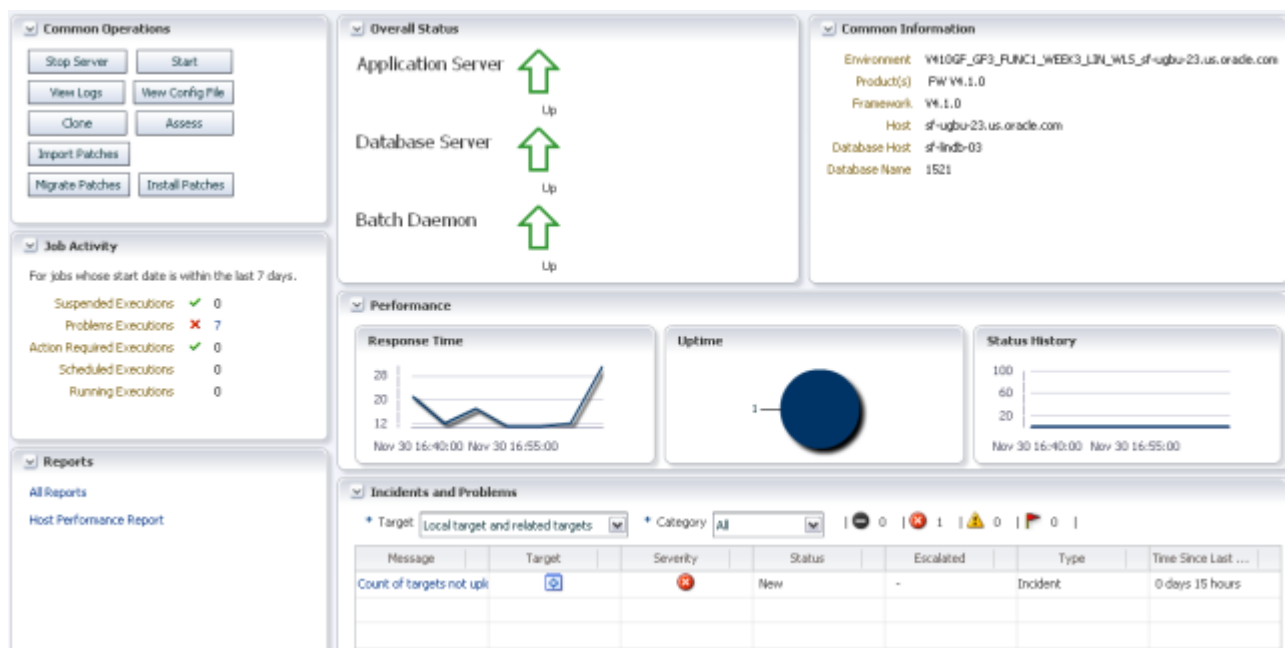


Figure 14: Target Home Page

The default regions are:

- **Job Activity.** This region lists all submitted jobs, including any submitted through the Common Operations region.

- **Reports.** Select from *All Reports* or *Host Performance Reports*.
- **Incidents & Problems.** *Problems* are classified as issues that cause the plug-in to malfunction or throw errors and exceptions. *Incidents* are issues that need not necessarily impact plug-in operations, but are related to the target being monitored. Most incidents are thrown when certain defined criteria, such as thresholds, are met. If, for example, the administrator sets a threshold of 95 percent for disk space usage, an incident is reported when that level of usage is exceeded.

### Custom Regions

The four custom regions are:

- [Overall Status](#)
- [Common Information](#)
- [Performance](#)
- [Common Operations](#)

### Target Overall Status

The Overall Status region provides a snapshot of the status of the Application Server, Database Server, and Batch Daemon. It indicates the status of each as either Up (green up arrow), Down (red down arrow), or Unreachable (Unreachable icon).

*Application Server* status is monitored using Enterprise Manager's URL timing fetchlet. The environment is marked as Up if the environment URL responds to the fetchlet.

*Database Server* status is determined by running the `tnsping` utility on the environment database. The `tnsping` must be available and on the path of the agent's installation user.

*Batch daemon* status is determined by executing the `spl.sh -b check` command-line utility.

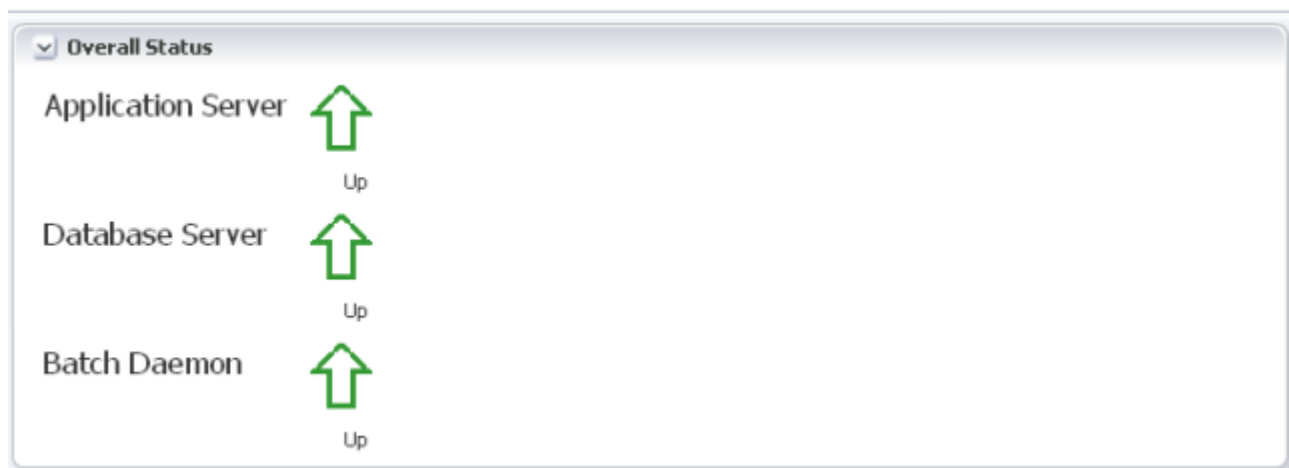


Figure 15: Target Home Page: Overall Status Region

### Target Common Information

The Common Information region lists the products installed in this environment. It shows the environment name, host name, database information, and lists all top-level products

and their versions, including the version of the Oracle Utilities Framework installed in the environment.



Figure 16: Target Home Page: Common Information Region

**Note:** A delay in the gathering of configuration metrics may result in incomplete information in this region, and can result in execution errors in certain features. If you suspect that the region information is not complete (see incomplete data in the Common Information Region in the following image), choose **Target > Configuration > Last Collected** from the Target Home page, then choose **Actions > Refresh**. This action triggers a refresh of the configuration metrics so that the common information region is complete.

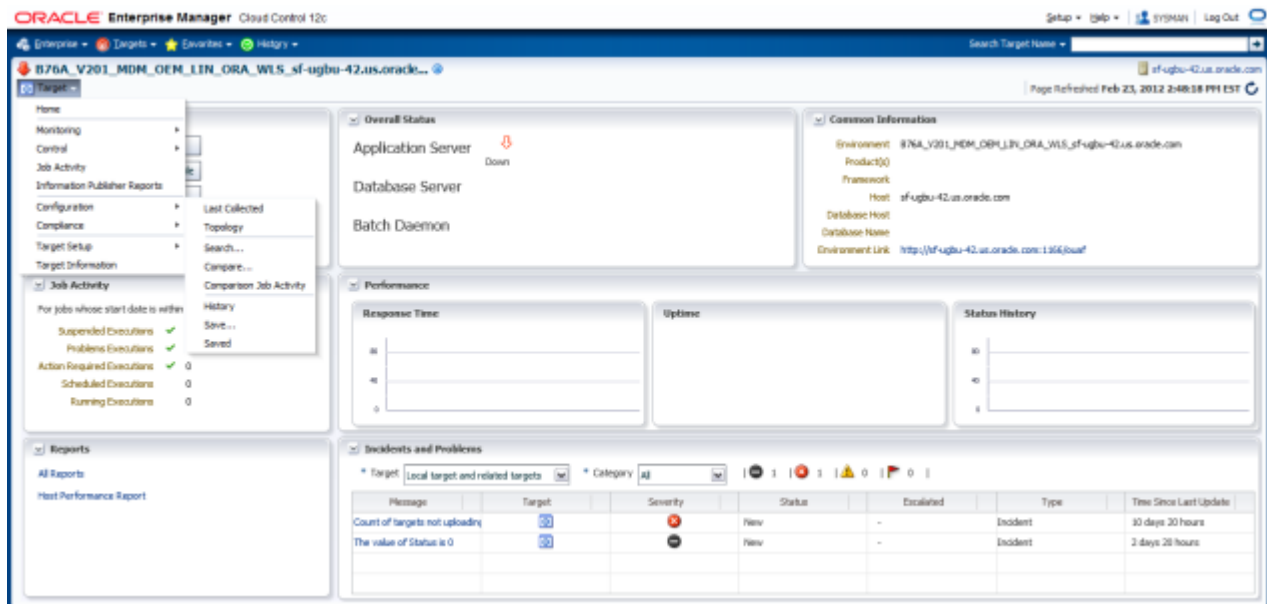


Figure 17: Target Home Page: Incomplete Common Information

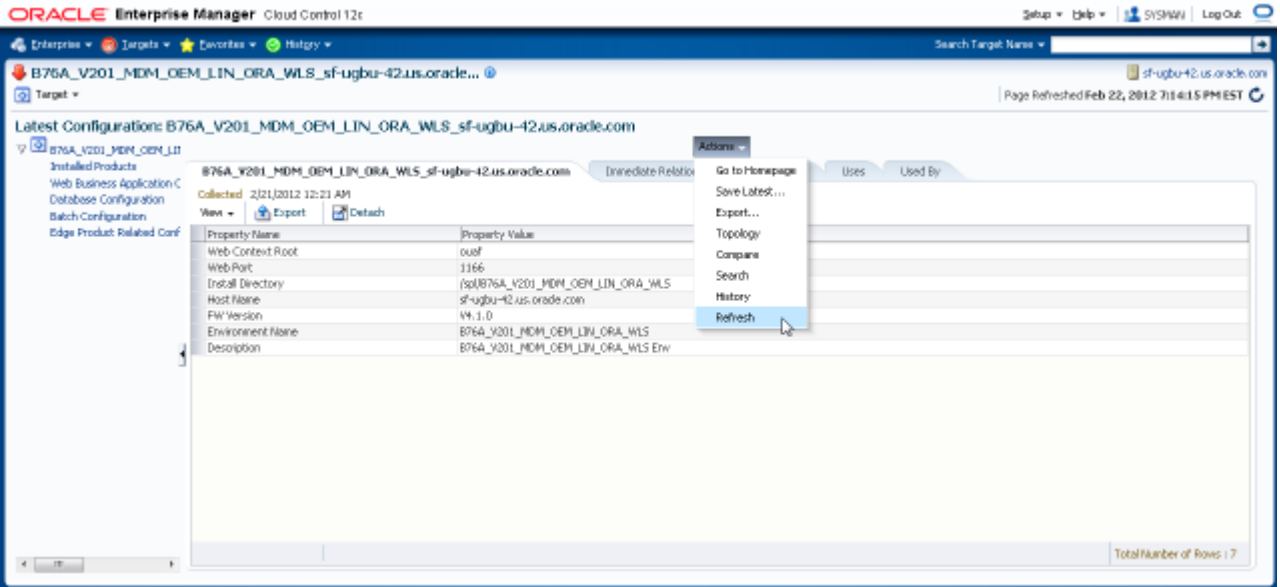


Figure 18: Target Home Page: Refreshing Common Information

## Target Performance

The Performance region plots three metrics that indicate environment performance. The metrics are:

- Response time (measured in terms of the time it takes to load the login page for the environment)
- Historical up-time (displayed as a pie chart)
- Status history

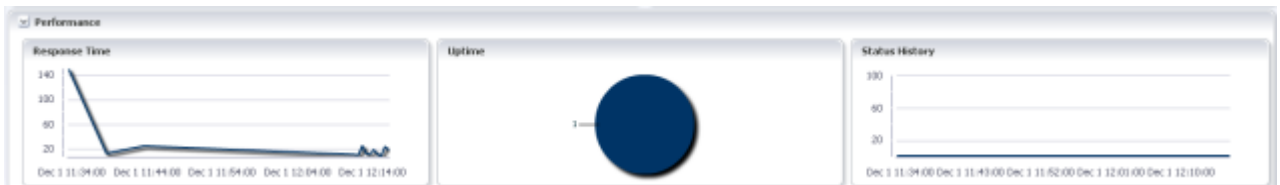
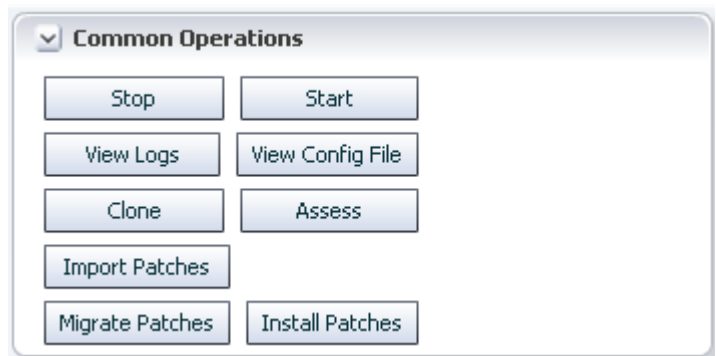


Figure 19: Target Home Page: Performance Region

## Target Common Operations

The Common Operations region provides access to common operations performed by the administrator. It includes buttons to start and stop the application server and batch daemon, view log and configuration files, clone an environment (application server only), and manage the installation or migration of patches.

It also confirms that the environment is properly installed by checking that the configuration files contain all the values necessary to bring up the environment.



*Figure 20: Target Home Page: Common Operations Region*

### **Start/Stop**

These buttons open a dialog in which the operator enters the credentials to connect to the server for the purpose of either starting or stopping it.

The operator must select a target (**Application Server**, **Batch Daemon**, or **Both**) from the dropdown **Component** list.

**Note:** This functionality is available for WebLogic environments only. It will fail on non-WebLogic environments.

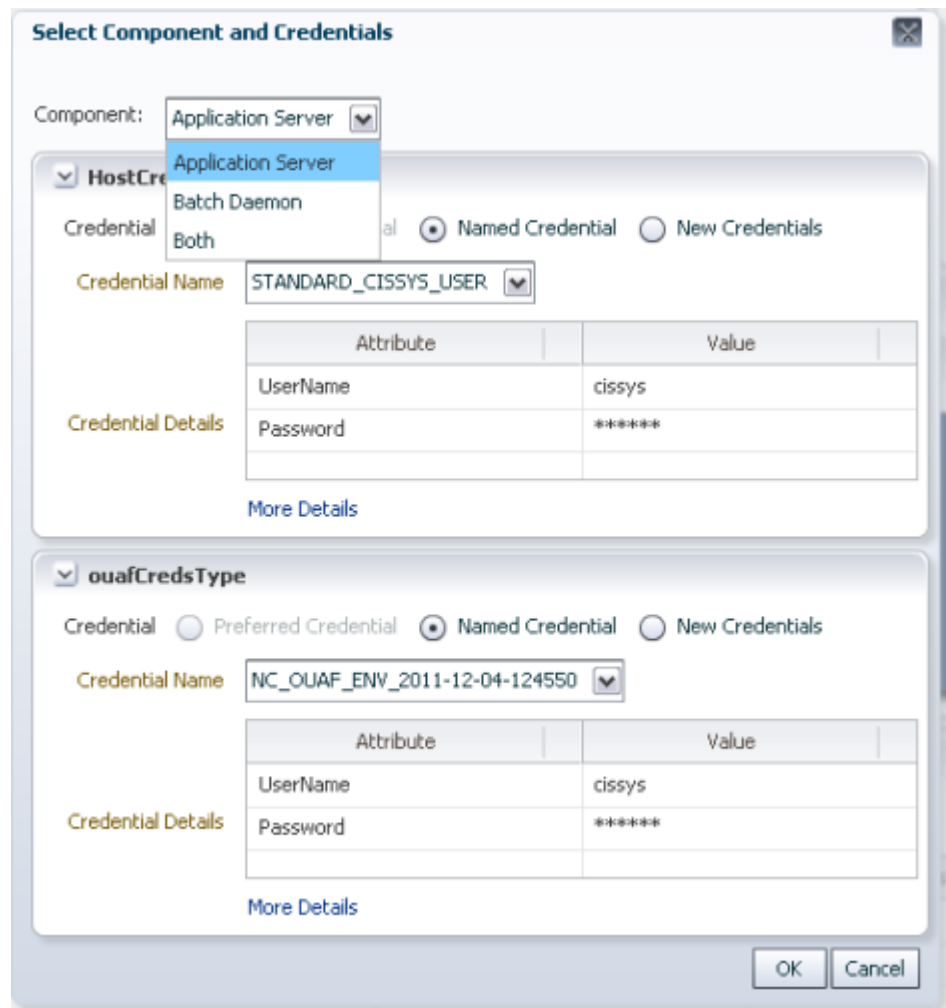


Figure 21: Credentials Dialog

The types of credentials that can be selected are:

- Credentials to connect to the host on which environment is running (e.g., "cissys" or "oracle")
- Credentials that were used to configure the environment (e.g., "cissys")

You can either enter these values or select a saved credential.

When credentials are entered, clicking **OK** executes the selected command (Start server or Stop server). Clicking **Cancel** or closing the dialog exits without starting (or stopping) the server.

**Note:** The Start/Stop buttons submit jobs that perform the same function provided by the `sql.sh/sql.cmd start/stop` command-line utility. Thus, the environment in which you are working must be set up so that these utilities are available and properly functioning.

## View Logs

The View Logs button allows the operator to view the contents of log files generated at the application server level.



## View Configuration Files

The View Configuration Files function lets the operator view the contents of configuration files used by the application server.

## Clone

The Clone function lets the operator clone the current environment (application server only).

## Assess

The Assess function assesses an environment's configuration.

## Import Patches

Patching an environment involves three steps:

1. Download the patches from My Oracle Support (performed manually outside of the Application Management Pack).
2. Import the patches into Application Management Pack for Oracle Enterprise Taxation and Policy Management (via the **Import Patches** button in the **Common Operations** panel).
3. Install/Migrate the patches.

The Import Patches function must be used for the second step. This function is required for patch installs and patch migration within the Application Management Pack for Oracle Enterprise Taxation and Policy Management plug-in.

## Install Patches

The Install Patches function is used to install patches that have already been imported into the Application Management Pack for Oracle Enterprise Taxation and Policy Management plug-in in the current environment.

## Migrate Patches

The **Migrate Patches** function is a special form of patch installation wherein a source environment is compared to a destination environment. The source environment is used to identify patches that the administrator intends to install in the current/destination environment. The identified patches should have been imported previously for the current target's product, release and platform.

## Environment Assessment

Environment assessment allows administrators to perform basic validation of correct installation of Oracle Utilities Application Framework applications.

The following files, settings, and definitions are checked:

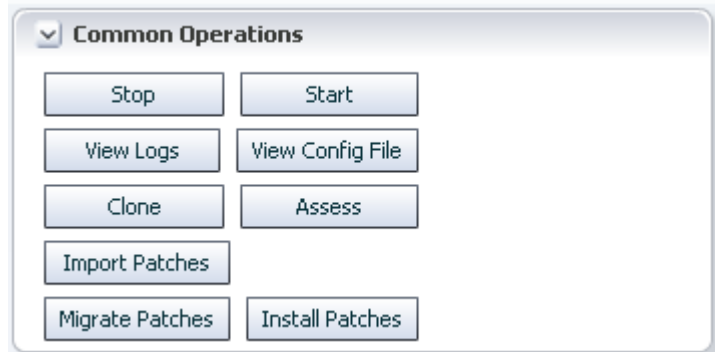
- Correct positioning of key files
- Key configuration settings
- Correct setting of security definitions
- Patch validation

**Note:** This functionality is available for WebLogic environments only. It will fail on non-WebLogic environments.

## Assessing Environments

To assess the current environment:

1. Open the **Target UI Home Page** and click the **Assess** button in the **Common Operations** region.



*Figure 22: Target Home Page: Common Operations Region*

2. On the **Credentials** page, choose a set of saved credentials or enter your user name and password, then click **Next** to proceed.

Environment Assessment

Credentials Result

Credentials Step 1 of 2 Back Next Cancel

**HostCreds**

Credential ☐ Preferred Credential ☒ Named Credential ☐ New Credentials

Credential Name NEW\_CISSYS\_TEMP

Credential Details

Attribute	Value
UserName	cissys
Password	*****

More Details

**ouafCredsType**

Credential ☐ Preferred Credential ☒ Named Credential ☐ New Credentials

Credential Name DAVE\_PWD

Credential Details

Attribute	Value
UserName	cissys
Password	*****

More Details

Figure 23: Environment Assessment: Entering Credentials

3. The **Result** page displays the results of the assessment.

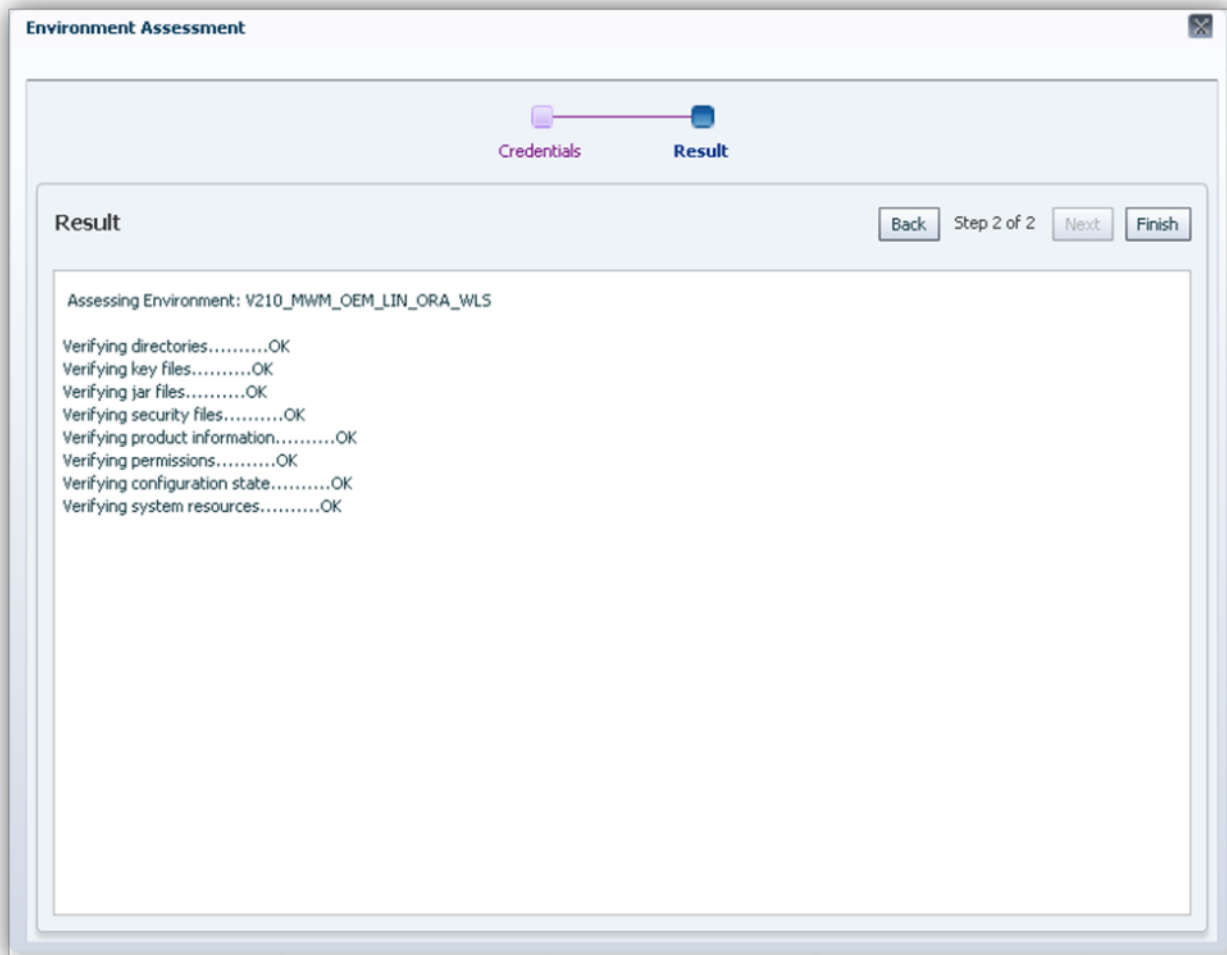


Figure 24: Environment Assessment: Result

4. Click **Finish** to return to the Target Home Page.

## Environment Cloning

Environment cloning allows operators or administrators to duplicate the application server portion of any Oracle Utilities Application Framework-based environment, creating new environments using the same software and definitions that exist on the source server.

Two cloning options are available:

- **Simple** cloning copies software and existing parameters to a target environment using minimal specifications. It can be particularly useful for backing up an existing environment prior to applying patches.
- **Advanced** cloning lets you modify configuration information—memory arguments, installation software locations, batch configurations for coherence settings, etc.—to create new environments with new characteristics. Other configuration changes, such as web application server-related credentials, must be changed after the cloning operation is complete by running the `configureEnv` command line utility.

**Note:** To minimize performance issues, the clone of an environment must be on the same host as the original environment. Only the application server is cloned, not the database.

**Note:** This functionality is available for WebLogic environments only. It will fail on non-WebLogic environments.

## Environment Cloning: Simple Method

To clone an environment using the simple method:

1. Open the **Target UI Home Page** and click the **Clone** button in the **Common Operations** region.

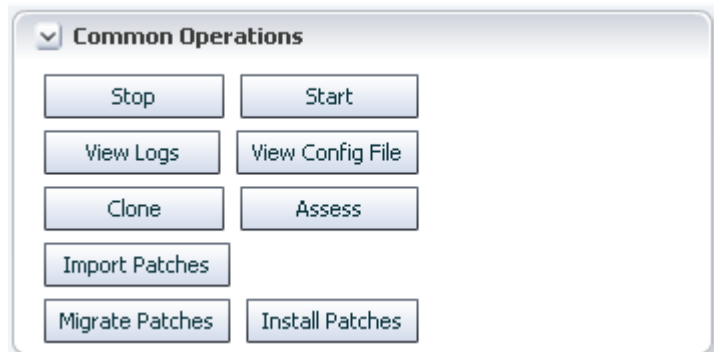


Figure 25: Target Home Page: Common Operations Region

2. On the **Clone Type** page, choose **Simple Clone** from the dropdown list, then click **Next** to proceed.



Figure 26: Simple Cloning: Select Clone Type

3. On the **Credentials** page, choose a set of saved credentials or enter your user name and password, then click **Next** to proceed.

Progress: Credentials (active) | Details | Schedule | Confirm

Step 1 of 4: Back | Next | Cancel

### Credentials

☐ Credential ☐ Preferred Credential ☒ Named Credential ☐ New Credentials

Credential Name: NEW\_CSSYS\_TEMP

Attribute	Value
Username	cssys
Password	*****

More Details

### LocalCredsType

☐ Credential ☐ Preferred Credential ☒ Named Credential ☐ New Credentials

Credential Name: DAVE\_PWD

Attribute	Value
Username	cssys
Password	*****

More Details

**Figure 27: Simple Cloning: Entering Credentials**

- On the **Details** page, provide the name and mount point for the new environment, a description of the environment, and the Web server port number. Other options on the target environment will match the source environment. Click **Next** to proceed after the basic details are entered.

Progress: Credentials | Details (active) | Schedule | Confirm

### Details

☒ Environment Installation Options

\*New Environment Name: OUET\_12C\_DEMO\_ENV

\*Environment Mount Point: /spl

☒ Description

Environment Description: OUET\_12C\_DEMO ENVIRONMENT

☒ Web Application Server Configuration

\*Web Server Port Number: 8080

NOTE: In the target environment, the other options will be set to be the same as the source environment. After cloning completion you'll need to execute configureEnv.sh/cmd, and review them. For batch, make sure to set up the coherence settings properly if using clustered mode.

**Figure 28: Simple Cloning: Entering Details**

- On the **Schedule** page, choose either **Execute Immediately** (upon completion of the walk-through), or **Execute Later** with a date and time for execution of the cloning operation, then click **Next** to proceed.

**Figure 29: Simple Cloning: Scheduling**

6. On the **Confirmation** page, review all details of the cloning operation, then click **Finish** to complete the process and return to the Target UI Home Page.

**Figure 30: Simple Cloning: Confirmation**

Simple cloning allows you to create a copy of an environment and start it for testing (since you can change the web port number). In order to make more complex configuration changes after creating a simple clone, the operator must set the appropriate values on the target environment by running the `configureEnv` batch (or, on Linux/UNIX, the `configureEnv` shell script). The operator must, for example, ensure that coherence settings are properly set up if clustered mode is being used.

## Environment Cloning: Advanced method

To clone an environment using the advanced method:

1. Open the **Target UI Home Page** and click the **Clone** button in the **Common Operations** region.

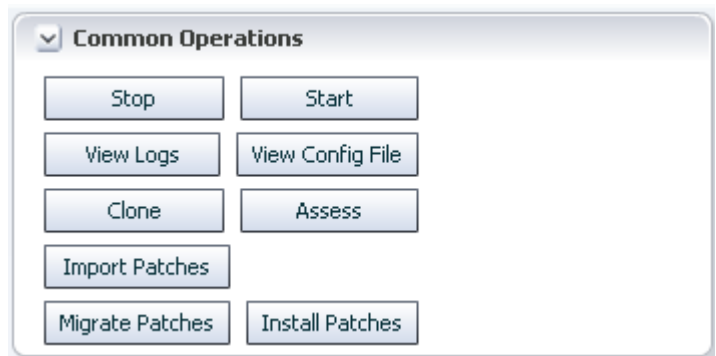


Figure 31: Target Home Page: Common Operations Region

2. On the **Clone Type** page, choose **Advanced Clone** from the dropdown list, then click **Next** to proceed.



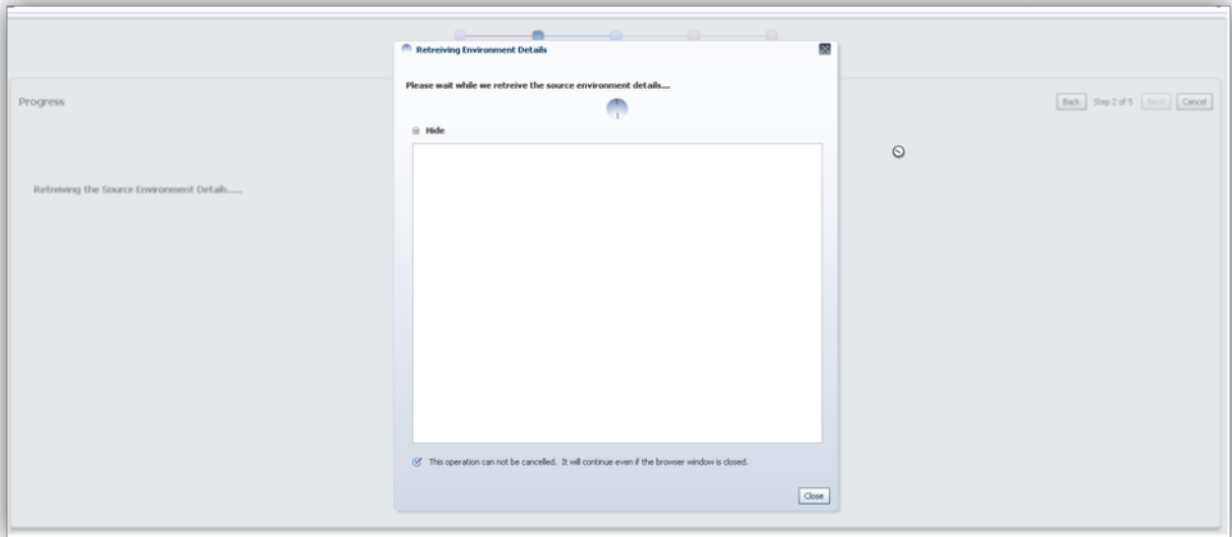
Figure 32: Advanced Cloning: Select Clone Type

3. On the **Credentials** page, choose a set of saved credentials or enter your user name and password, then click **Next** to proceed.

Figure 33: Advanced Cloning: Entering Credentials

4. The **Progress** page lets you know that required details are being collected from the source environment.





**Figure 34: Advanced Cloning: Entering Details**

**Important:** The details collection process cannot be interrupted, and will continue even if the browser window is closed.

After retrieving the source environment details, the page automatically advances to the **Details** page.

5. Use the **Details** page to make any necessary adjustments to the collected information, then click **Next** to proceed.

**Figure 35: Advanced Cloning: Entering Details**

6. On the **Schedule** page, choose either **Execute Immediately** (upon completion of the walk-through), or **Execute Later** with a date and time for execution of the cloning operation, then click **Next** to proceed.

**Schedule**

☐ Execute Immediately
 ☒ Execute Later

02/03/2012
 3 : 25
 ☐ AM
 ☒ PM

**Figure 36: Advanced Cloning: Scheduling**

7. On the **Confirmation** page, review all details of the cloning operation, then click **Finish** to complete the process and return to the Target UI Home Page.

**Confirm**

Back Step 5 of 5 Next Finish

**Third Party Software Configuration**

ADF Home Directory	/opt/Oracle/Developer_11.1.1.4.0
Child JRM Home Directory	
COBOL Home Directory	
Database Home Directory	/opt/orasw/app/oracle/product/11.2.0.1/client_1
Hibernate JAR Directory	/opt/hibernateLib
Web Java Home Directory	/usr/java6_64
OMS JAR Directory	
ODM OAM Enabled Environment	false
Oracle Client Home Directory	/opt/orasw/app/oracle/product/11.2.0.1/client_1
Web Application Server Home Directory	/opt/Oracle/Middleware1034/webserver_10.3

**Environment Installation Options**

Database Type	oracle
Environment Mount Point	/opt
Log Files Mount Point	/opt/logoutput
Environment Name	V210_MW_M_OEH_ADJ_ORA_WLS1
Web Application Server Type	WLS
Install Application Viewer Module	true
Install Application Viewer Module	true

**Environment Description**

**Scheduled Time**

Schedule Mode: Immediate

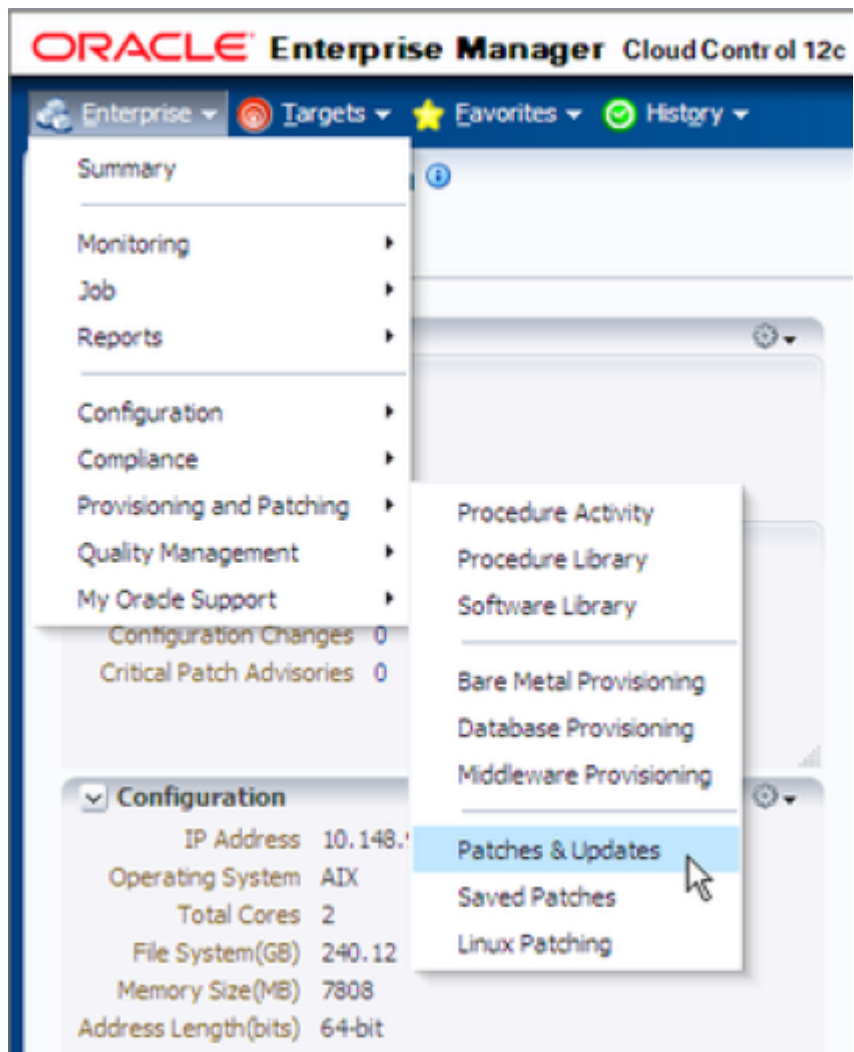
**Figure 37: Advanced Cloning: Confirmation**

Other configuration changes, such as web application server-related credentials and coherence settings (if clustered mode is being used), must be changed after the cloning operation is complete by running the `configureEnv` command-line utility (`configureEnv.bat` or, on Linux/UNIX, `configureEnv.sh`).

## Patch Import and Installation

Patching is a three-step process:

1. **Download** patches from My Oracle Support (MOS): This step is performed through the **My Oracle Support Plug-in** within Oracle Enterprise Manager from the top-level menu, choose **Enterprise > Provisioning and Patching > Patching & Updates**.



2. **Import** the downloaded patches: This process allows you to import downloaded patches which are subsequently unpackaged into a format that is compatible with the Application Management Pack's installation process.
3. **Install** the imported patches: This process allows you to import downloaded patches and install them into a target environment, updating relevant files in \$SPLEBASE. If you deploy manually to the web server, you must perform this step after the installation process completes.

### Patch Import/Installation Notes

- Read-write access to the download directory is required.
- Application server patch components are installed using the standard patch install script. Database patch components are installed using a Java version of the standard CDXPatch.exe utility. Note that patches using the database upgrade-install utility cdxdbi.exe are *not* supported and the database component of the patch will not be installed.
- During patch installation and patch migration, the installation job copies the individual patch directories from the download staging directory to a directory on the target environment (\$SPLEBASE/oem/patch/install/tmp/YYYY-MM-DD-HH-MI-SS). The subdirectories are sorted by install sequence, e.g., 001-gf, 002-gf,

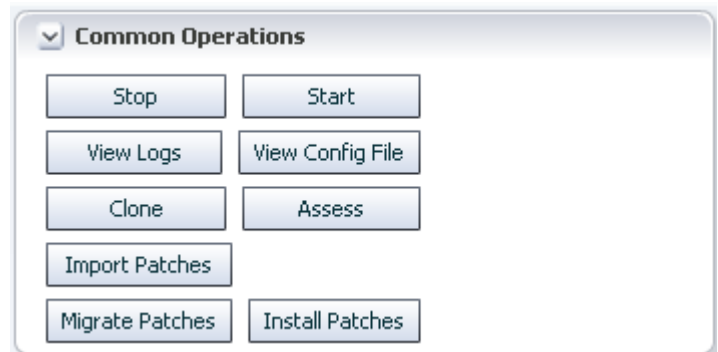
003-sfs. The job output clearly states the directories from which patch installation occurs.

- Due to packaging differences, only standard single fixes and group fixes are supported. An error is generated if you choose a service pack or rollup for import, or if the single fix or group fix is packaged in a non-standard manner.

## Importing Patches

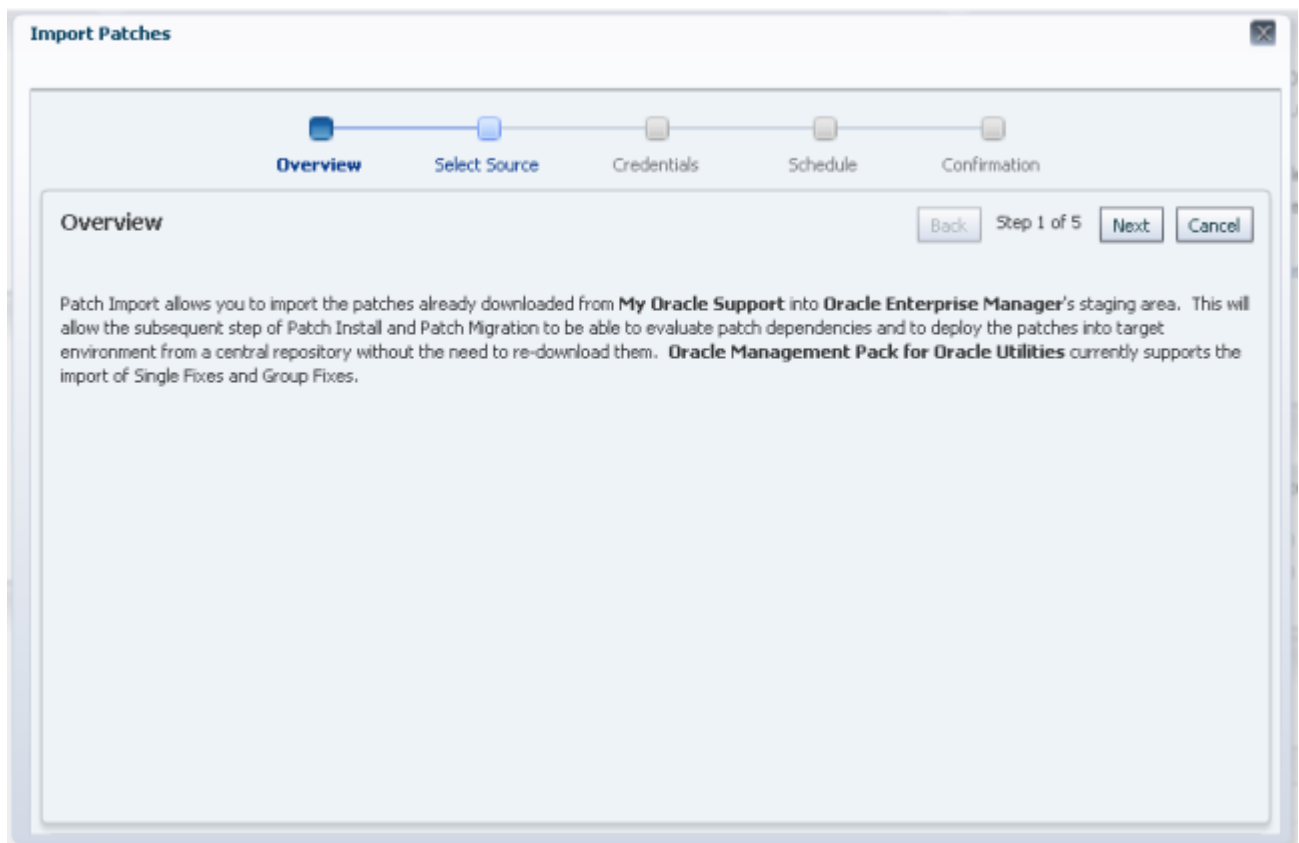
To import patches:

1. Open the **Target UI Home Page** and click the **Import Patches** button in the **Common Operations** region.



*Figure 38: Target Home Page: Common Operations Region*

2. The first page of the **Import Patches** walk-through appears. Click **Next..**



*Figure 39: Import Patches: Overview*

3. On the **Select Source** page, enter the patch download directory. This is the directory on the server where the downloaded zip files are stored when you manually downloaded them from My Oracle Support. The path entered here should be accessible from the server on which the target environment is hosted. After entering the path, click **Next**.

**Import Patches**

Overview **Select Source** Credentials Schedule Confirmation

**Select Source** Back Step 2 of 5 Next Cancel

**Patch Download Directory**

We recommend using a shared drive to download the patches from **My Oracle Support**. Please provide here the path to such a download directory. Note this path should be as it appears on the server where **Oracle Enterprise Manager** is hosted.

*Figure 40: Import Patches: Select Source*

4. On the **Credentials** page, enter the patch download directory. This is the directory on the server where the downloaded zip files are stored when you manually downloaded them from My Oracle Support. The path entered here should be accessible from the server on which the target environment is hosted. After entering the path, click **Next**.

**Import Patches**

Overview   Select Source   **Credentials**   Schedule   Confirmation

Back   Step 3 of 5   Next   Cancel

**Credentials**

**HostCreds**

Credential ☐ Preferred Credential ☒ Named Credential ☐ New Credentials

Credential Name: STD\_ORACLE\_USER

Attribute	Value
UserName	cissys

More Details

**ouafCredsType**

Credential ☐ Preferred Credential ☒ Named Credential ☐ New Credentials

Credential Name: NC\_OUAF\_ENV\_2012-02-02-100449

Attribute	Value
UserName	cissys

More Details

*Figure 41: Import Patches: Credentials*

- On the **Schedule** page, choose either **Execute Immediately** (upon completion of the walk-through), or **Execute Later** with a date and time for execution of the import action. Click **Next** to proceed.

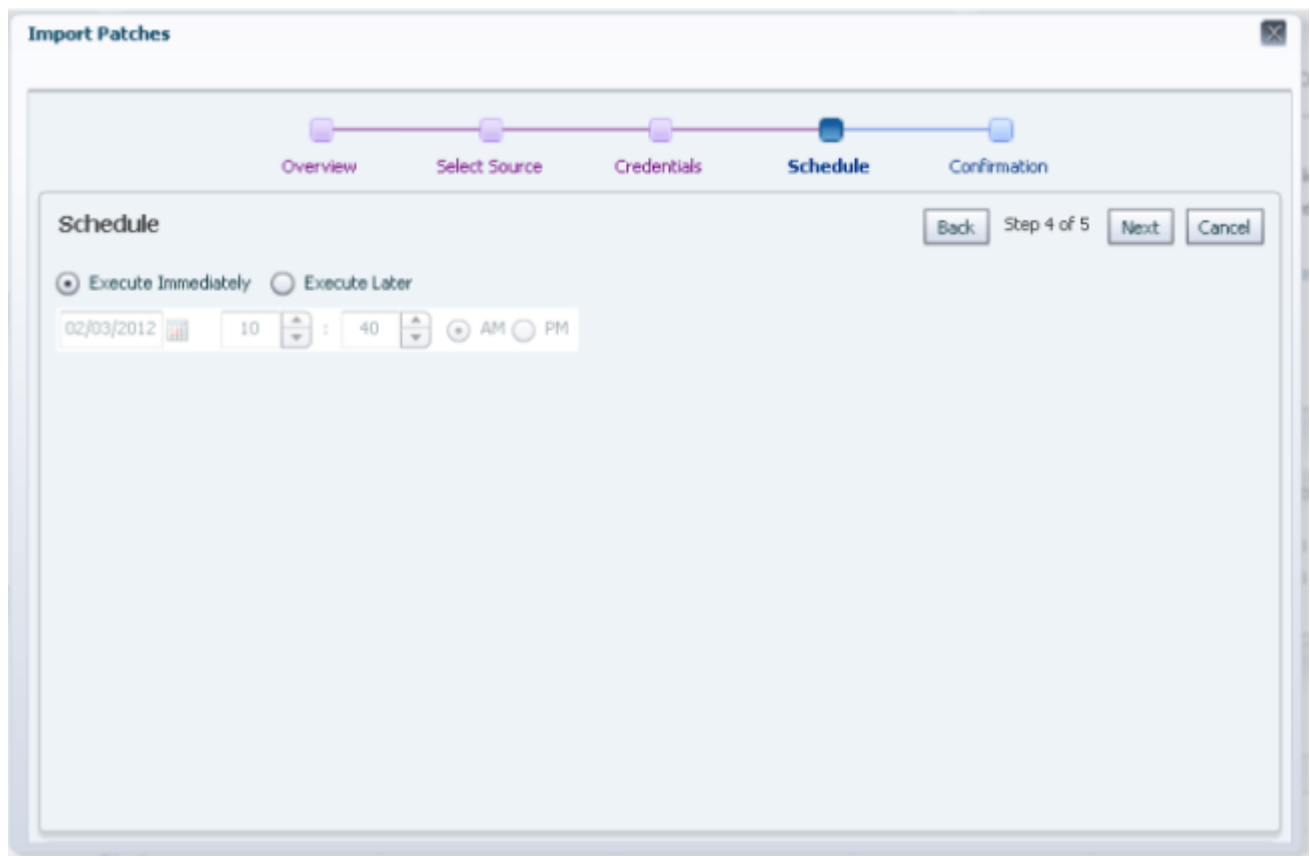


Figure 42: Import Patches: Schedule

6. On the **Confirmation** page, click **Finish** to submit the patch import job.



Figure 43: Import Patches: Confirmation

On completion of the patch import job, the imported zip file is unpackaged in the appropriate staging directory and a \*.zip-unpacked file is created.

Example: A FW V4.1.0 patch zip file called p12548444\_4100\_Generic.zip is imported and placed in /tugbu\_oem/download. Upon completion of the import procedure, the following occurs:

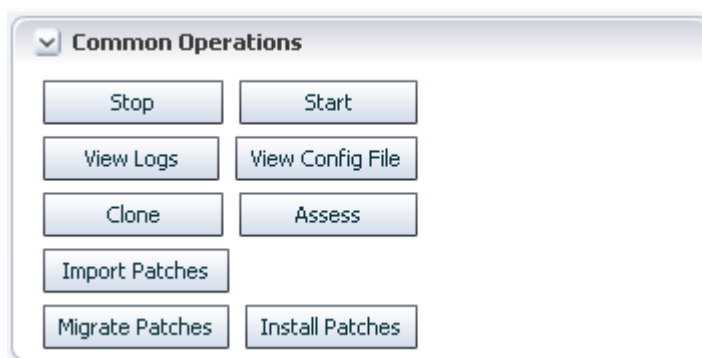


1. /tugbu\_oem/download/p12548444\_4100\_Generic.zip-unpacked is created. This prevents patches that have already been imported from being processed again. If you would like a patch to be re-imported, delete its \*.zip-unpacked file.
2. /tugbu\_oem/download/staging\_directory/FW/V4.1.0/multiplatform/FW.V4.1.0-12548444/12548444\_sf\_patch\_info.xml is created. This file contains information about the patch. The contents of the file are also placed in the proper product, release, platform, and patch number directory.

## Installing Patches

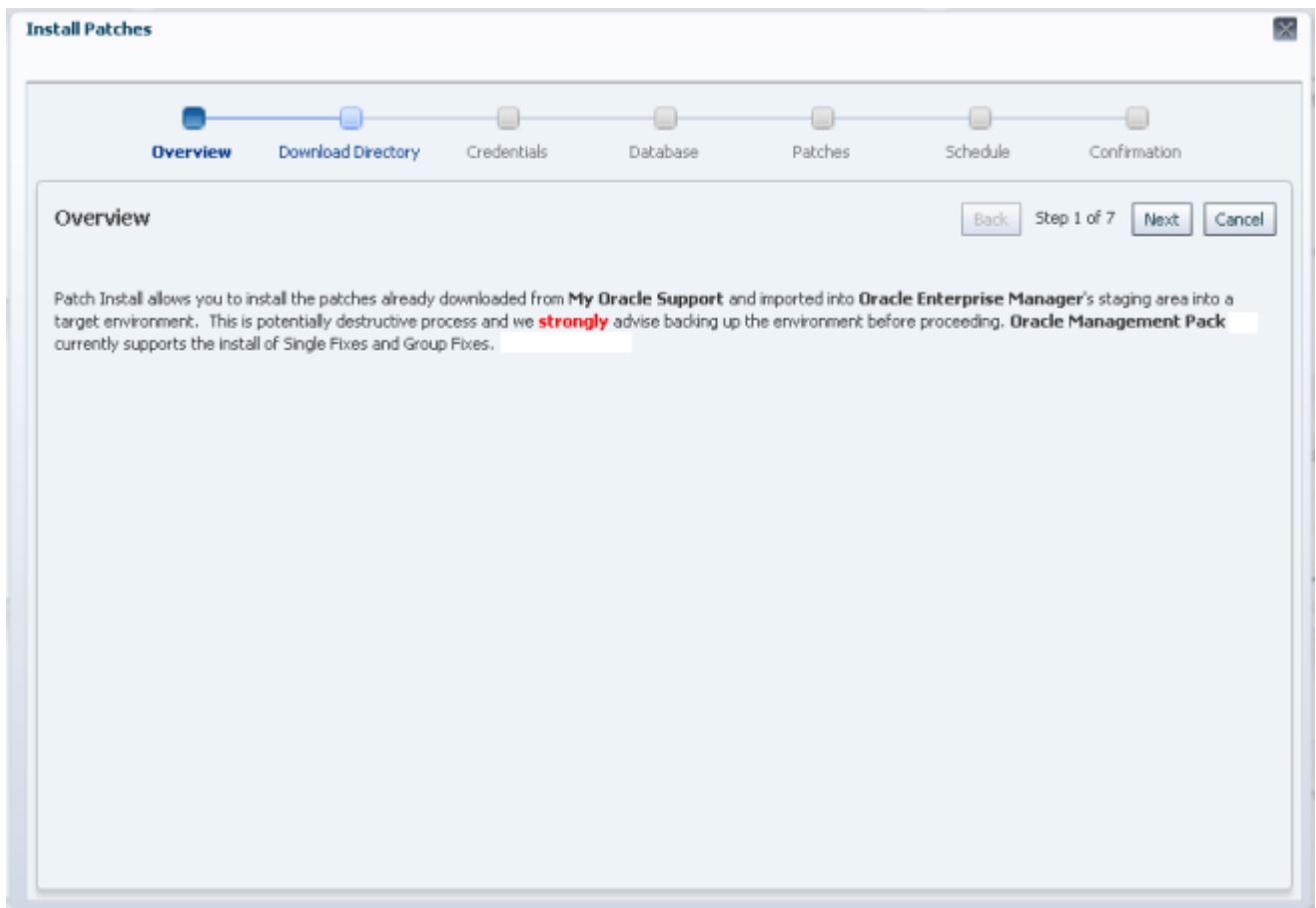
To install patches:

1. Open the **Target UI Home Page** and click the **Install Patches** button in the **Common Operations** region.



*Figure 44: Target Home Page: Common Operations Region*

2. The first page of the **Install Patches** walk-through appears. Click **Next**.



*Figure 45: Install Patches: Overview*

3. On the **Download Directory** page, enter the download directory used during patch import relative to the target environment. After entering your selection, click **Next** to proceed.

The screenshot shows a window titled "Install Patches" with a progress bar at the top. The progress bar has seven steps: Overview, Download Director (current step), Credentials, Database, Patches, Schedule, and Confirmation. The "Download Director" step is highlighted with a blue square. Below the progress bar, the main content area is titled "Download Directory". On the right side of this area, there are four buttons: "Back", "Step 2 of 7", "Next", and "Cancel". Below the buttons, there is a text input field labeled "Patch Download Directory". Below the input field, there is a paragraph of text: "We recommend using a shared drive to download the patches from **My Oracle Support**. Please provide here the path to such a download directory. Note this path should be as it appears on the server where **Oracle Enterprise Manager** is hosted."

**Figure 46: Install Patches: Download Directory**

4. On the **Credentials** page, choose a set of saved credentials or enter the user name and password for the environment, then click **Next** to proceed.

**Install Patches**

Overview Download Directory **Credentials** Database Patches Schedule Confirmation

Back Step 3 of 7 Next Cancel

**Credentials**

☒ HostCreds

Credential ☐ Preferred Credential ☒ Named Credential ☐ New Credentials

Credential Name NEW\_TEMP\_CISSYS

Attribute	Value
UserName	cissys

Credential Details More Details

☒ ouafCredsType

Credential ☐ Preferred Credential ☒ Named Credential ☐ New Credentials

Credential Name NC\_OUAF\_ENV\_2012-02-02-100449

Attribute	Value
UserName	cissys

Credential Details More Details

**Figure 47: Install Patches: Credentials**

5. If the patch to be installed has a database component, details about the target's database configuration must be entered on the **Database** page. All fields must be completed. If the patch does not have a database component, you can enter any value (e.g., "XXX") into the fields. After completing all fields, click **Next** to proceed.

**Install Patches**

Overview Download Directory Credentials **Database** Patches Schedule Confirmation

**Database** Back Step 4 of 7 Next Cancel

To be able to migrate the patches that have Database component to them, **Oracle Application Management Pack** requires the destination database information.  
Please enter here the required information for the destination database.

Enter user id for the schema owner of the destination database(slc00snd.us.oracle.com:TX23OEM3)

Enter the password for the schema owner of the destination database

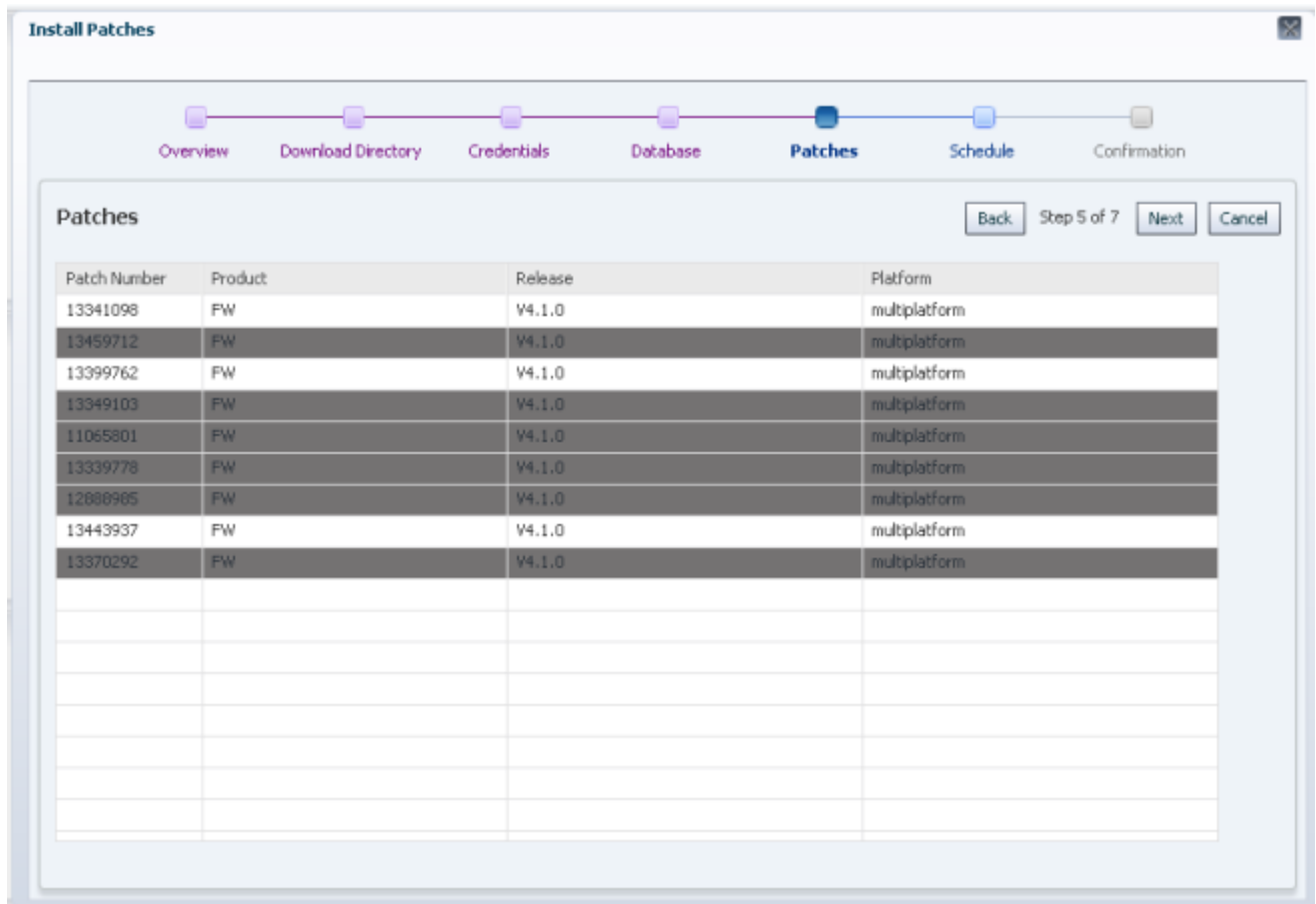
Enter a colon-separated list of Oracle users in which synonyms need to be create (e.g. CISUSER:CISREAD)

Enter a database role which has a read-write privilege (e.g. CISUSER)

Enter a database role which has a read only privilege (e.g. CISREAD)

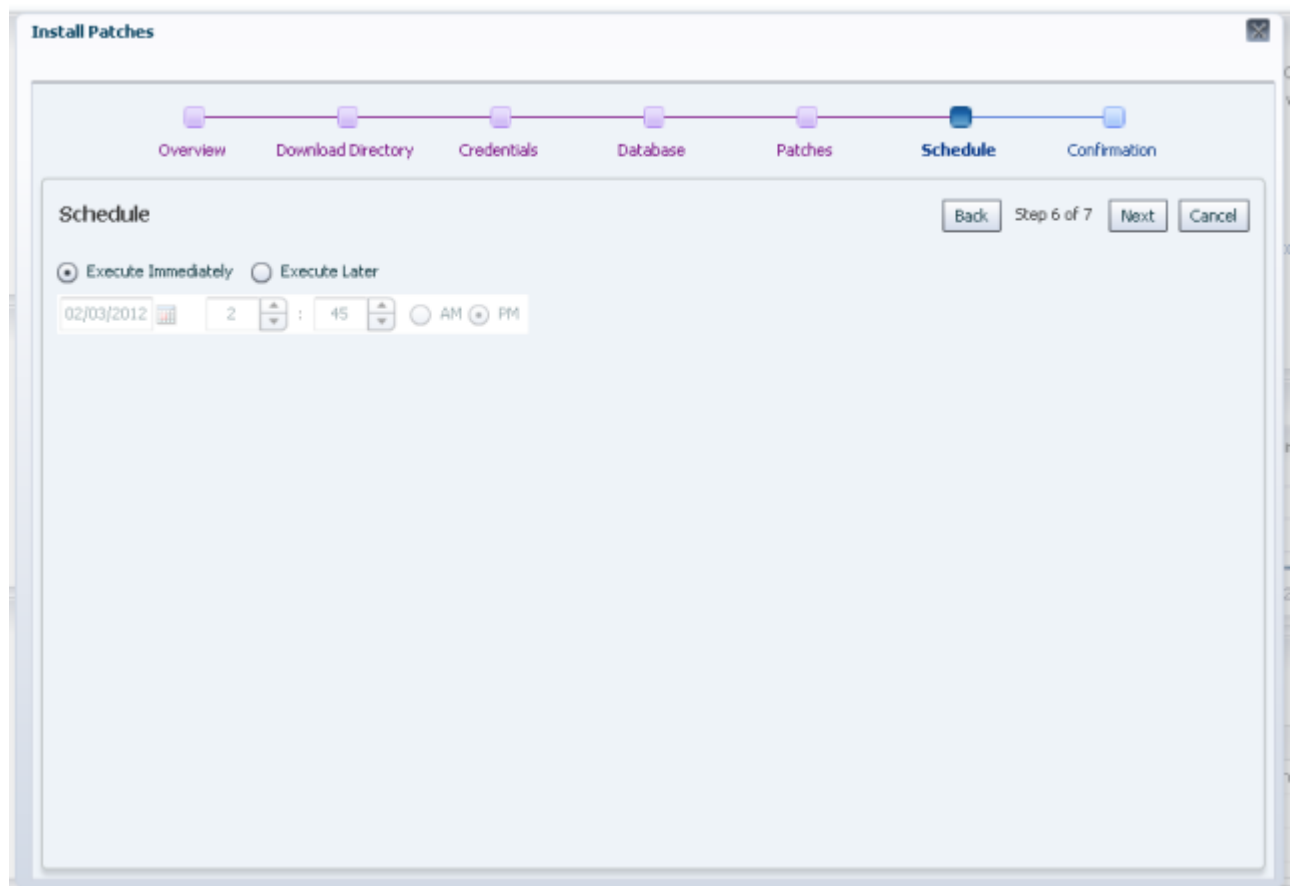
**Figure 48: Install Patches: Database**

6. The **Patches** page lists candidate patches. The list includes only patches that are valid for the target environment (based on product, release and platform), exist on the download directory, and have not yet been installed on the target environment. Select the patch or patches to be installed. Use **Control+Click** or **Shift+Click** to select multiple patches. After making your choice(s), click **Next** to proceed.



*Figure 49: Install Patches: Select Patches*

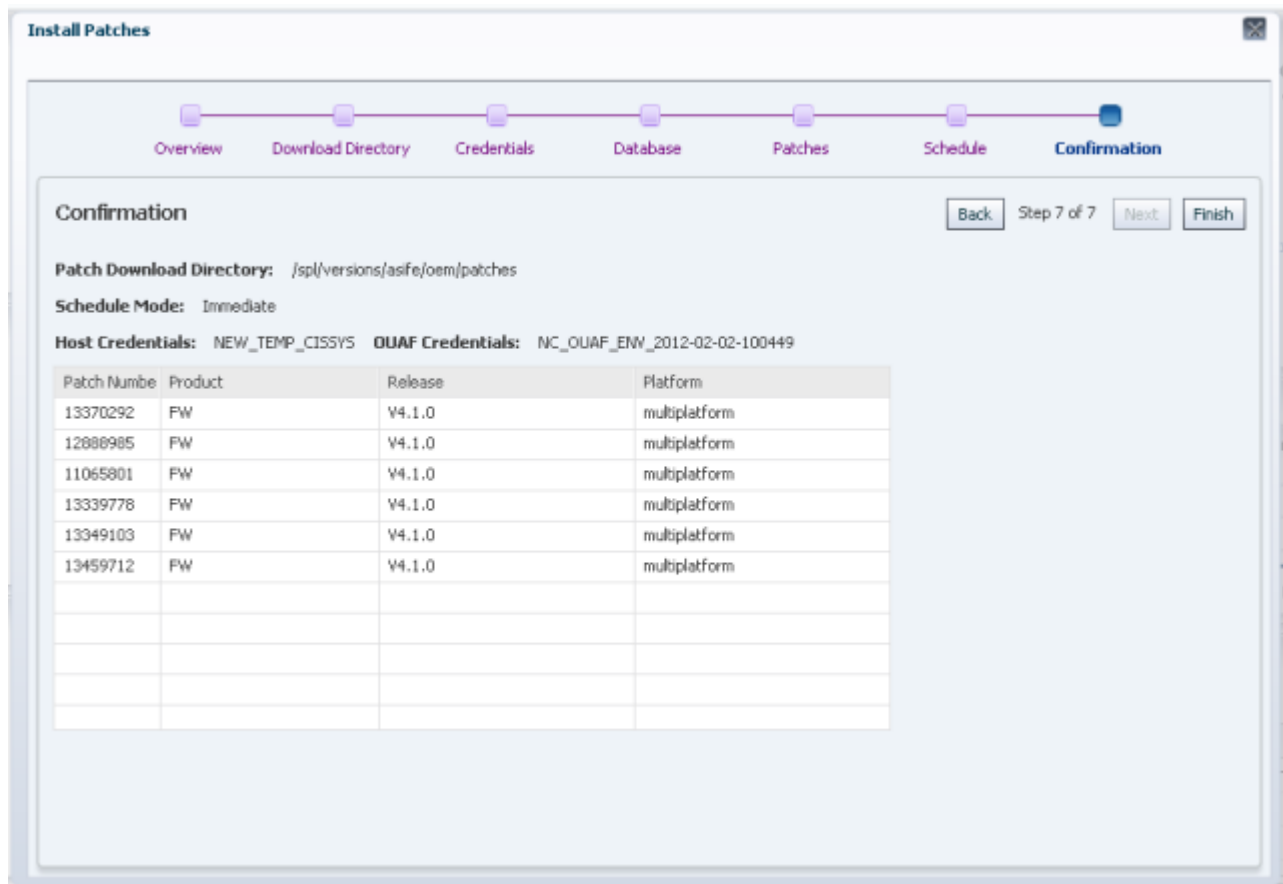
- On the **Schedule** page, choose either **Execute Immediately** (upon completion of the walk-through), or **Execute Later** with a date and time for execution of the installation. Click **Next** to proceed.



**Figure 50: Install Patches: Schedule**

8. On the **Confirmation** page, click **Finish** to complete the installation.

**Note:** After clicking **Finish**, a job submission confirmation dialog appears. To monitor the patch installation job, click **Show Status** in the dialog.



**Figure 51: Install Patches: Confirmation**

### Additional details regarding patch installations.

Installation occurs in the following sequence:

- Patches are copied from the download staging directory to a temporary directory on the target (\$SPLEBASE/oem/patch/tmp).
- Patch installation is grouped by product, according to the order in which the products are listed in the PRODUCT.txt file.
- Within a product, group fixes are installed first, in order of patch number. Single-fix patches are combined as a rollup, and a group install is performed. For each of these, the database components are installed first, followed by the application server component, and, finally, an error-checker is executed.

## Patch Migration

During the product implementation lifecycle, patches are normally installed and tested on an environment, and the process is repeated on each environment. The patch migration feature in Application Management Pack for Oracle Enterprise Taxation and Policy Management allows administrators to migrate patches to all environments from a central location.

Patch migration is special form of patch installation wherein a source environment is compared to a destination environment. The source environment is used to identify patches that the administrator intends to install in the current/destination environment.



The identified patches should have been imported previously for the current target's product, release and platform.

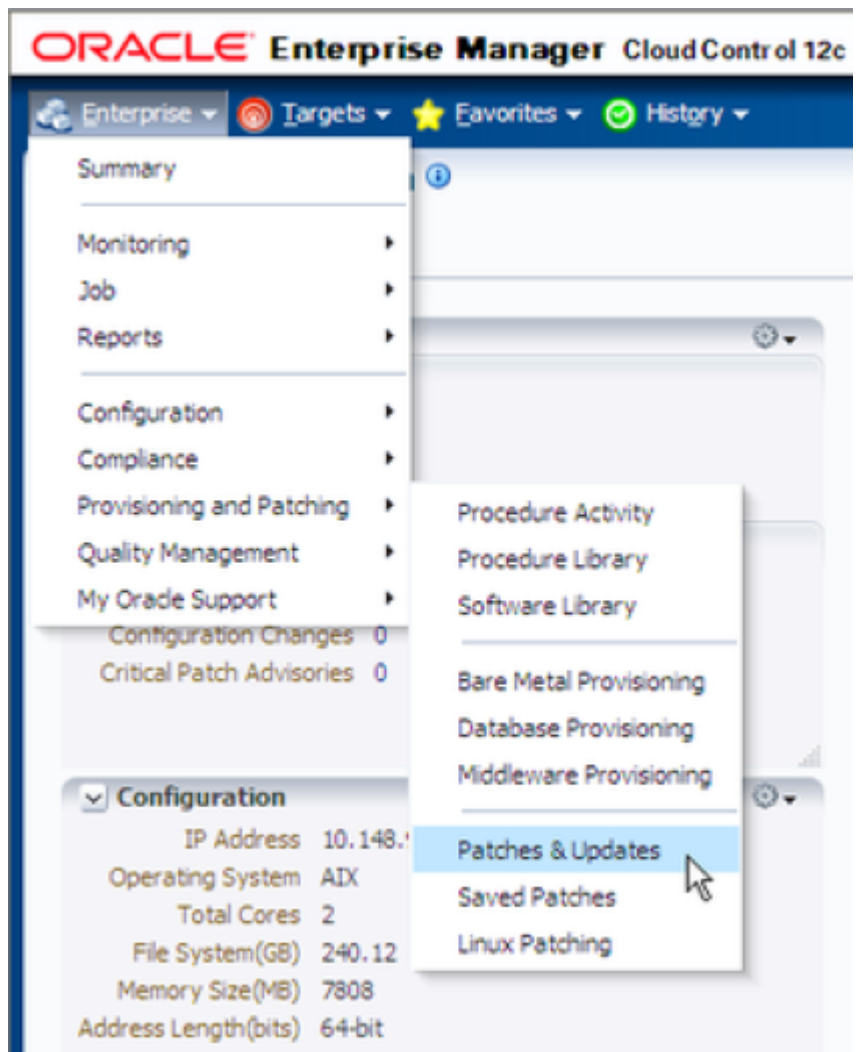
The workflow is as follows:

1. On the destination environment's target home page, click the **Migrate** button.
2. A source target containing the patches to migrate is selected from the dropdown list.
3. Existing patches installed on both targets are analyzed and a list of patches that are installed on the source (but not on the destination target) is created. This list is compared to the contents of the download staging directory and only the patches that have been previously imported are displayed for selection.
4. The selected patches are then installed by the patch installation job (the same one used in the patch installation process), updating relevant files in \$SPLEBASE. If you deploy manually to the web server, you must perform this step after the installation process completes.

### The Process

Patch migration is a three-step process:

1. **Download** patches from My Oracle Support (MOS): This step is performed through the **My Oracle Support Plug-in** within Oracle Enterprise Manager from the top-level menu, choose **Enterprise > Provisioning and Patching > Provisioning & Patching**.



2. **Import** the downloaded patches: This process allows you to import downloaded patches which are subsequently unpackaged into a format that is compatible with the Application Management Pack's installation process.
3. **Migrate/install** the imported patches.

**Note:** Application server patch components are installed using the standard patch install script. Database patch components are installed using a Java version of the standard `CDXPatch.exe` utility. Note that patches using the database upgrade-install utility `cdxdbi.exe` are *not* supported and the database component of the patch will not be installed.

## Migrating Patches

To migrate patches:

1. Open the **Target UI Home Page** and click the **Migrate Patches** button in the **Common Operations** region.

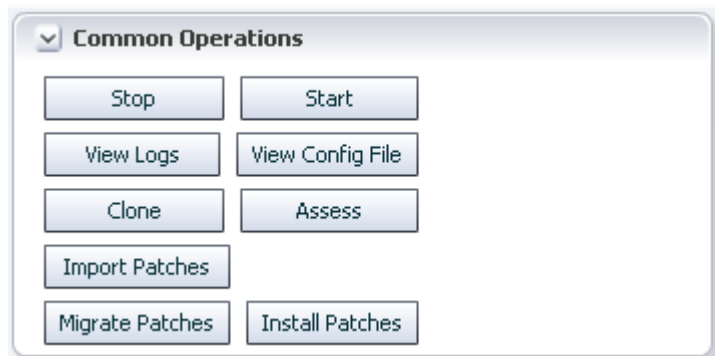


Figure 52: Target Home Page: Common Operations Region

2. The first page of the **Migrate Patches** walk-through appears. Click **Next**..

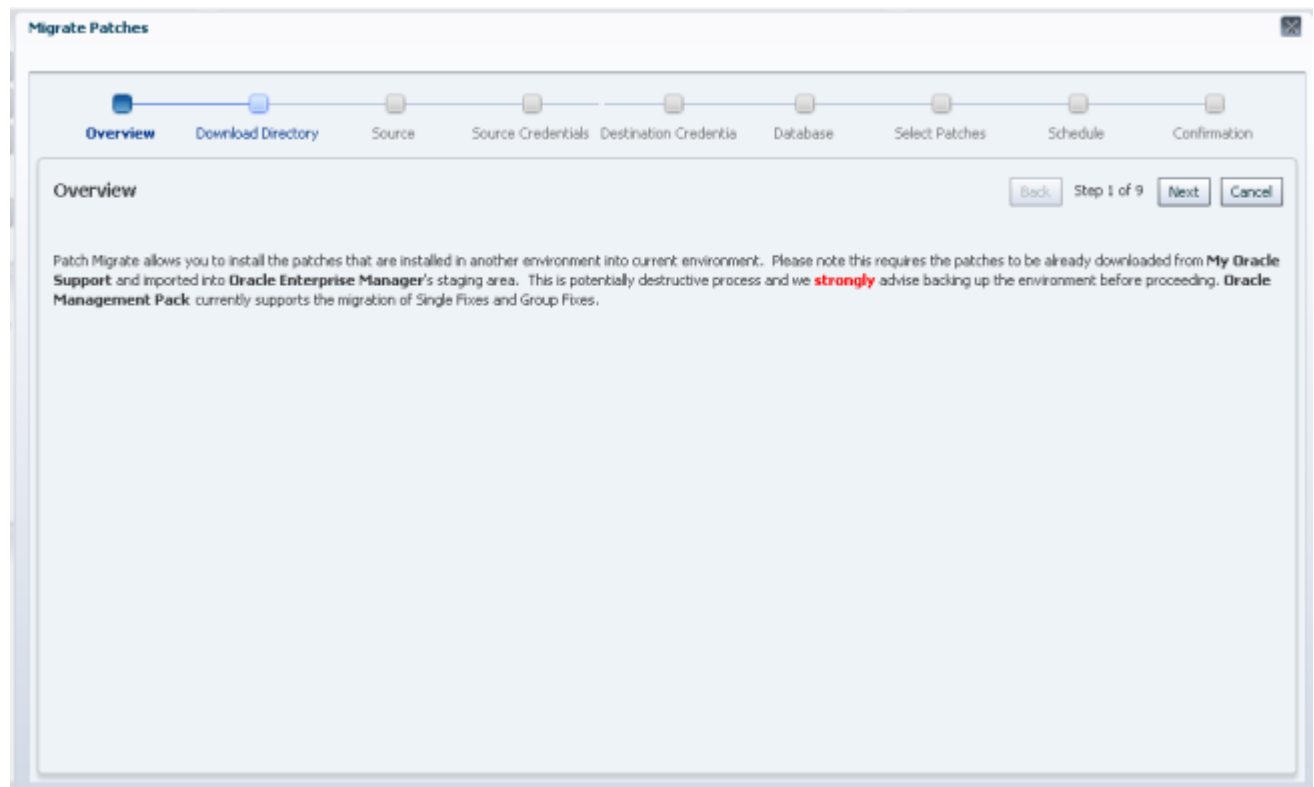


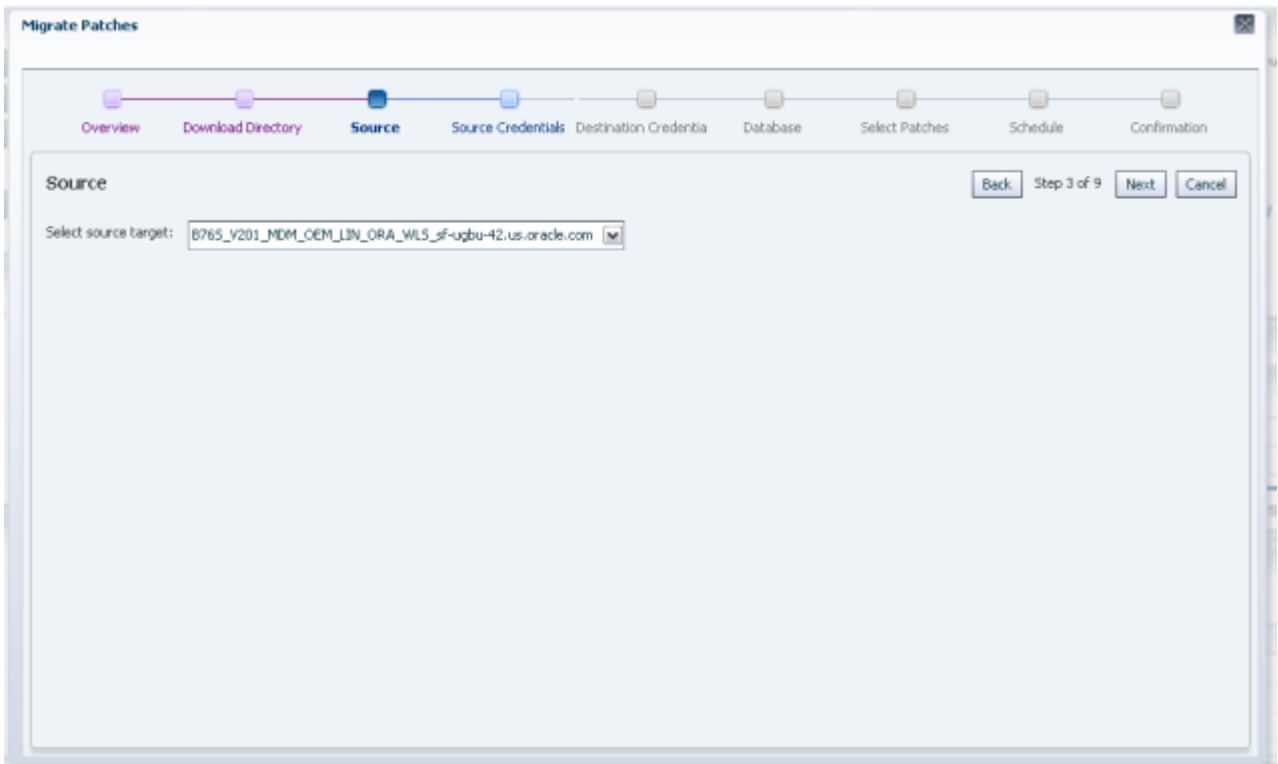
Figure 53: Migrate Patches: Overview

3. On the **Download Directory** page, enter the download directory used during patch import relative to the destination environment. After entering your selection, click **Next** to proceed.

The screenshot shows the 'Migrate Patches' wizard interface. At the top, a progress bar indicates the current step is 'Download Directory', which is highlighted with a blue square. Other steps in the bar include Overview, Source, Source Credentials, Destination Credentials, Database, Select Patches, Schedule, and Confirmation. Below the progress bar, the main area is titled 'Download Directory'. It contains a text input field labeled 'Patch Download Directory'. Below the input field, there is a note: 'We recommend using a shared drive to download the patches from **My Oracle Support**. Please provide here the path to such a download directory. Note this path should be as it appears on the server where **Oracle Enterprise Manager** is hosted.' In the top right corner of the main area, there are four buttons: 'Back', 'Step 2 of 9', 'Next', and 'Cancel'.

**Figure 54: Migrate Patches: Download Directory**

4. On the **Source** page, choose the source target environment from the dropdown list. Note that only targets with identical product/version combinations are included in the list. After making your selection, click **Next** to proceed.



**Figure 55: Migrate Patches: Source**

5. On the **Source Credentials** page, choose a set of saved credentials or enter the user name and password for the source environment, then click **Next** to proceed.

**Migrate Patches**

Overview Download Directory Source **Source Credentials** Destination Credentials Database Select Patches Schedule Confirmation

Back Step 4 of 9 Next Cancel

**Source Credentials**

**HostCreds**

Credential ☐ Preferred Credential ☒ Named Credential ☐ New Credentials

Credential Name: NEW\_TEMP\_CISSYS

Attribute	Value
Username	cissys

More Details

**ouafCredsType**

Credential ☐ Preferred Credential ☒ Named Credential ☐ New Credentials

Credential Name: NC\_OUAF\_ENV\_2012-02-100449

Attribute	Value
Username	cissys

More Details

**Figure 56: Migrate Patches: Source Credentials**

- On the **Destination Credentials** page, choose a set of saved credentials or enter the user name and password for the destination environment, then click **Next** to proceed.

Figure 57: Migrate Patches: Destination Credentials

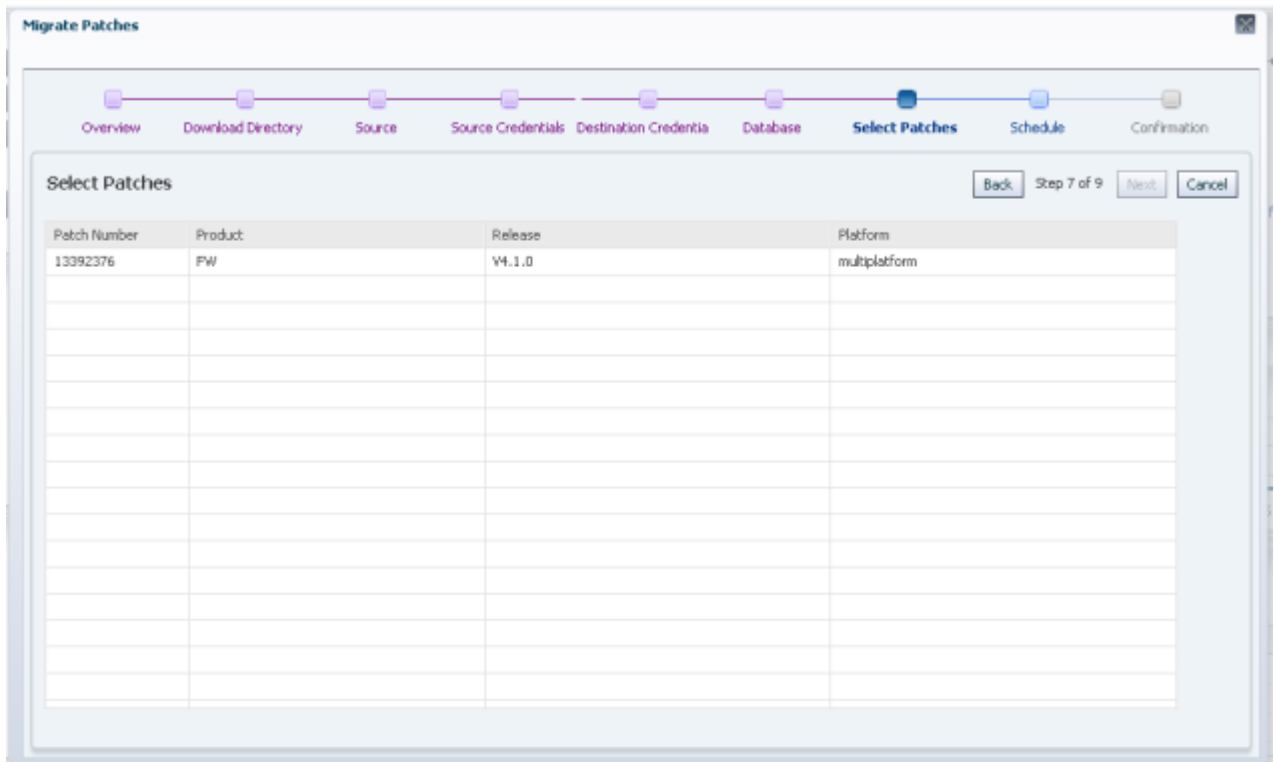
7. If the patch to be migrated has a database component, details about the target's database configuration must be entered on the **Database** page. All fields must be completed. If the patch does not have a database component, you can enter any value (e.g., "XXX") into the fields. After completing all fields, click **Next** to proceed.

Figure 58: Migrate Patches: Database

8. The **Select Patches** page lists candidate patches. The list includes only patches that are valid for the target environment based on product, release and platform),

For a patch to be displayed in the list, it must meet all of the following criteria:

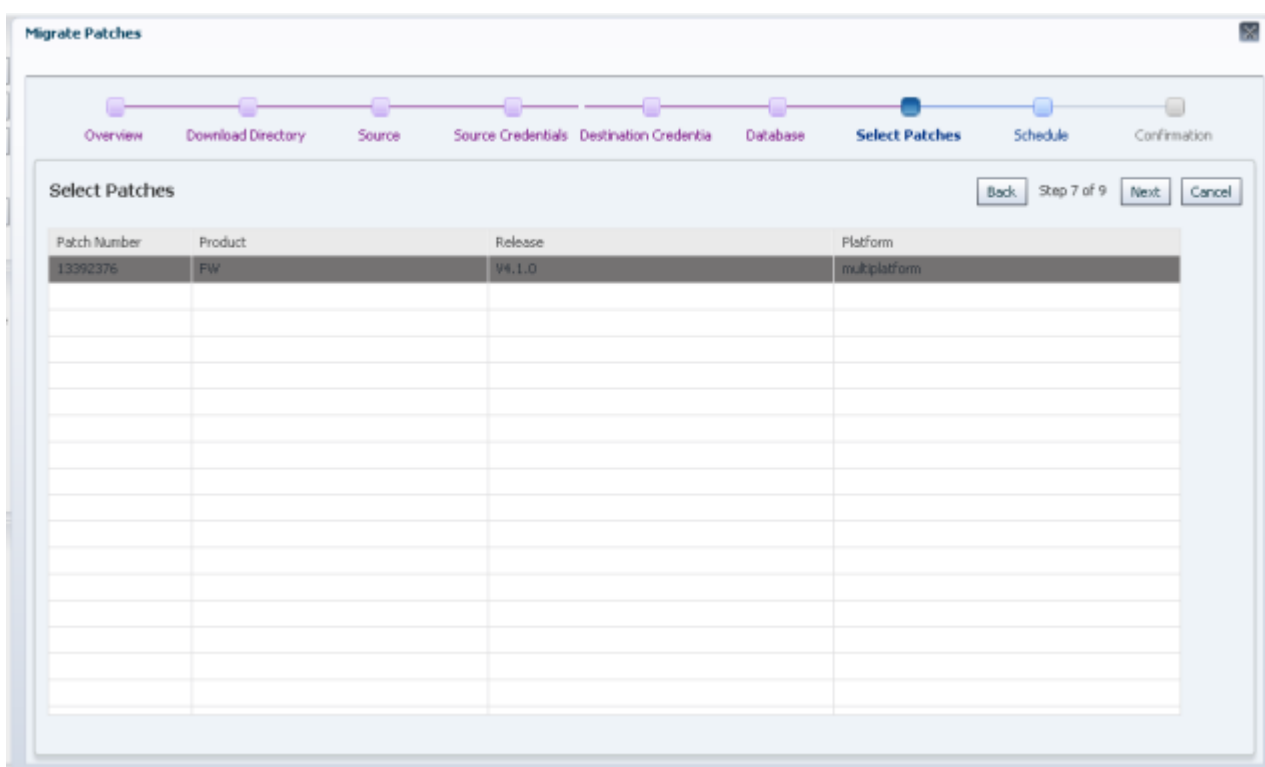
- It is valid for the product, release and platform of the environment;
- It must have been already been successfully imported, and, thus, exist on the download directory;
- It must not yet have been installed on the destination environment; and,
- It must already be installed on the source environment.



**Figure 59: Migrate Patches: Select Patches**

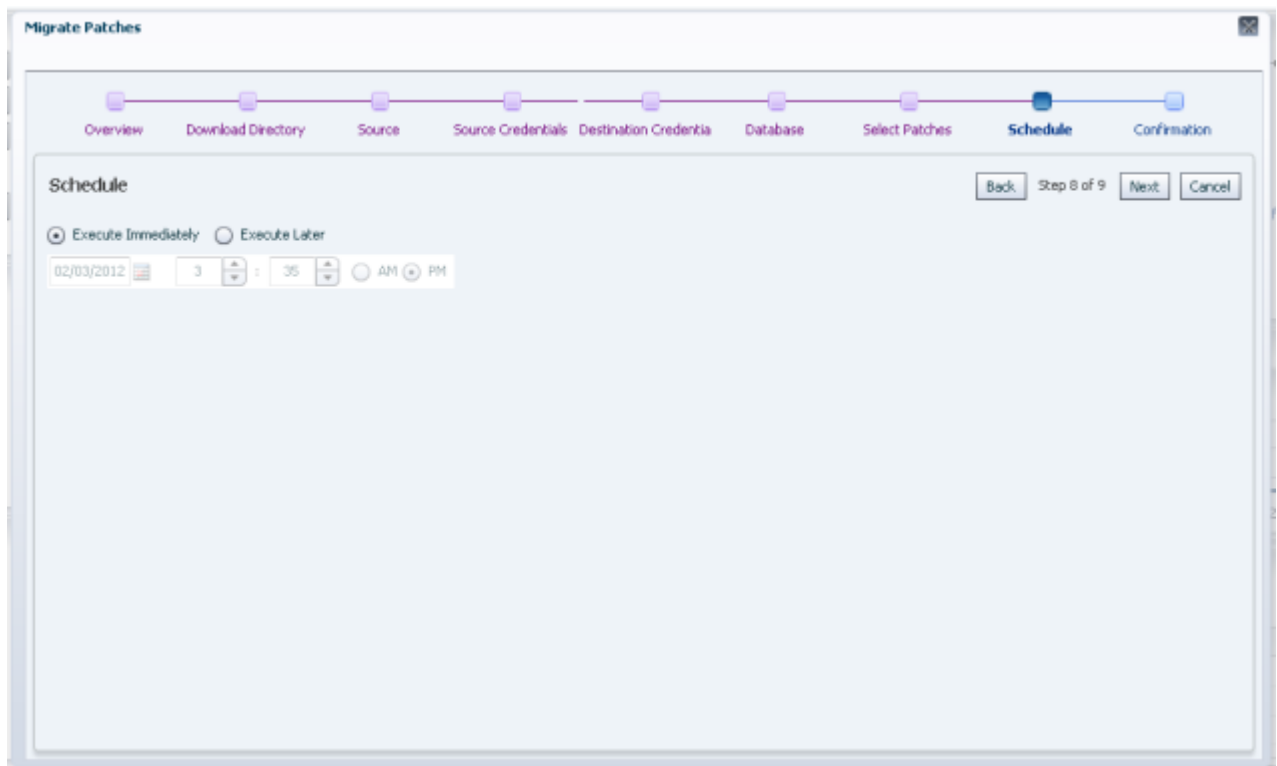
9. Select the patch or patches to be migrated. Use Control+Click or Shift+Click to select multiple patches. After making your choice(s), click **Next** to proceed.





**Figure 60: Migrate Patches: Select Patches: Selecting**

- 10.** On the **Schedule** page, choose either **Execute Immediately** (upon completion of the walk-through), or **Execute Later** with a date and time for execution of the migration, then click **Next** to proceed.



**Figure 61: Migrate Patches: Schedule**

**11.** On the **Confirmation** page, click **Finish** to complete the migration.

**Note:** After clicking **Finish**, a job submission confirmation dialog appears. To monitor the patch migration job, click **Show Status** in the dialog.

**Migrate Patches**

Overview Download Directory Source Source Credentials Destination Credentials Database Select Patches Schedule **Confirmation**

Back Step 9 of 9 Next Finish

**Confirmation**

**From:**  
 B76A\_V201\_MDM\_OEM\_LIN\_ORA\_WLS\_sf-ugbu-42.us.oracle.com  
**Host Credentials:** NEW\_TEMP\_CISSYS  
**OUAF Credentials:** NC\_OUAF\_ENV\_2012-02-02-100449

**To:**  
 B76A\_V201\_MDM\_OEM\_LIN\_ORA\_WLS\_sf-ugbu-42.us.oracle.com  
**Host Credentials:** NEW\_TEMP\_CISSYS  
**OUAF Credentials:** NC\_OUAF\_ENV\_2012-02-02-100449

**Schedule Mode:** Immediate

Patch Number	Product	Release	Platform
13392376	PW	V4.1.0	multiplatform

Figure 62: Migrate Patches: Confirmation

## Viewing Target Metrics

Application Management Pack for Oracle Enterprise Taxation and Policy Management allows the administrator to view the details remotely without logging into the server or the environment. This information can help to compare metrics in different environments and diagnose installation or setup issues.

To view the configuration metrics for a target:

1. Open the target's home page (per the procedure in [Viewing a Target's Home Page](#)).
2. Select **Target > Configuration > Last Collected...**

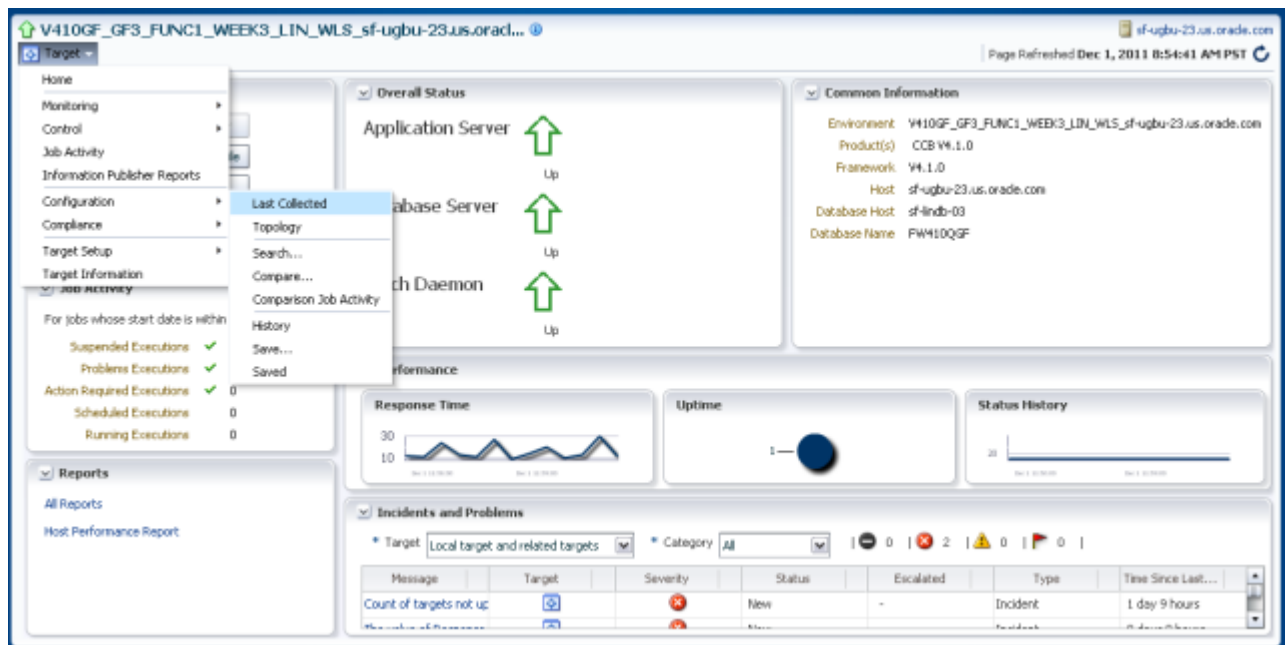


Figure 63: Selecting a target configuration

3. The target's **Latest Configuration** page appears. Use the **Installed Products** and **Environment Configuration** links on the left of the page to view the configuration parameters associated with the target environment.

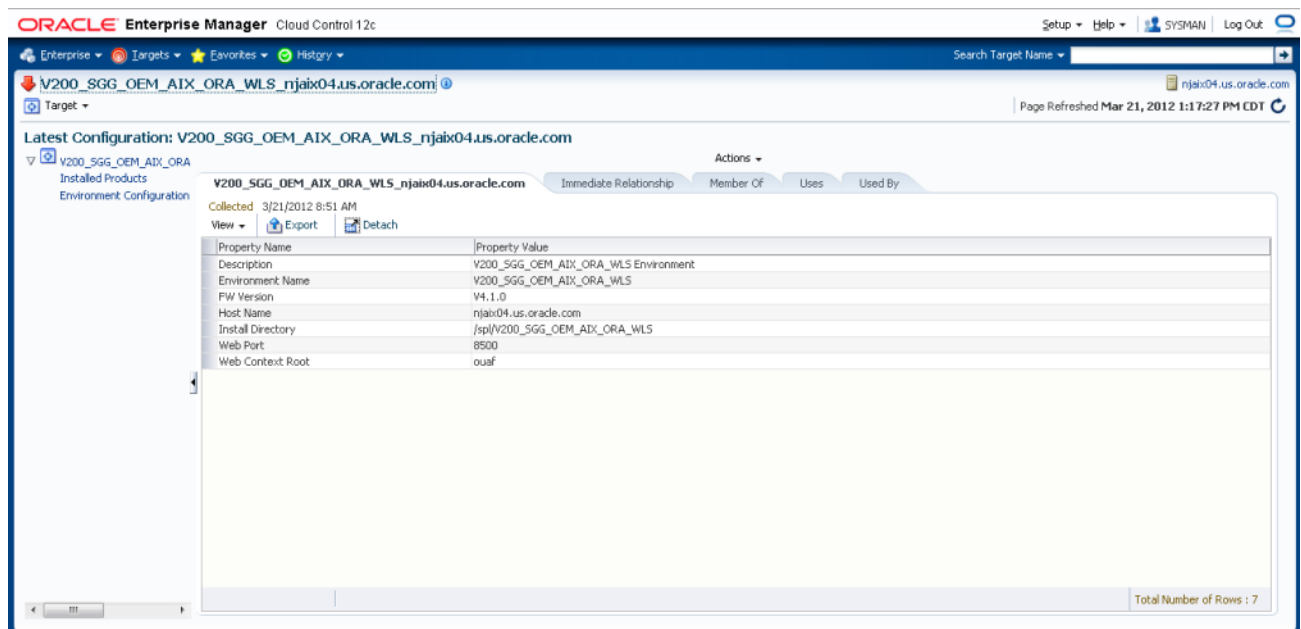


Figure 64: Latest Configuration page

The information is delivered as shown in the following diagrams:



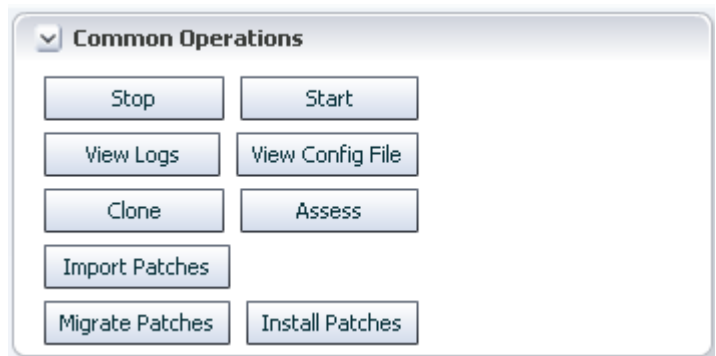
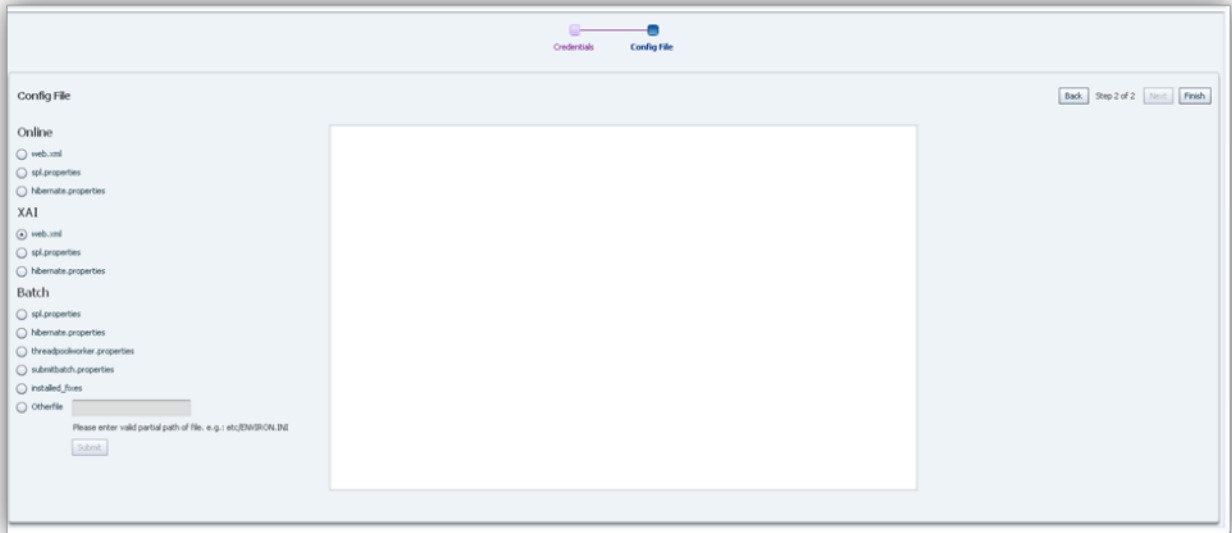


Figure 67: Target Home Page: Common Operations Region

2. On the **Credentials** page, choose a set of saved credentials or enter your user name and password, then click **Next** to proceed.

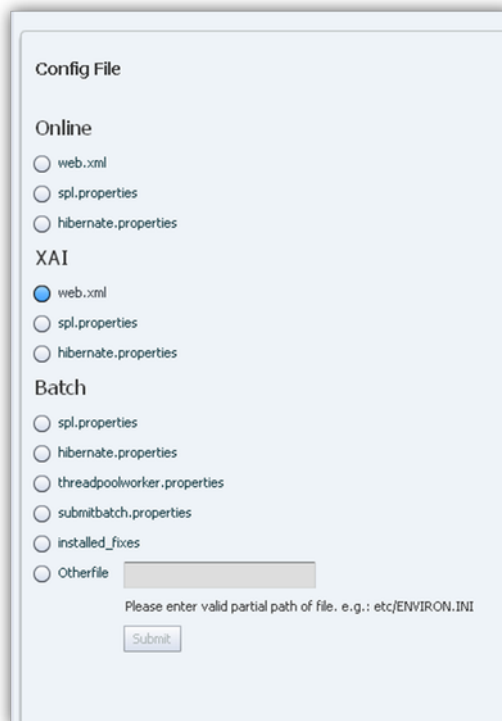
Figure 68: Viewing Configuration Files: Entering Credentials

3. The **Configuration Files** page offers a selection region to let you choose configuration files to view, as well as a display area for the selected file.



**Figure 69: Viewing Configuration Files: File Viewer**

4. Choose a configuration file by either clicking an option button from the listed items or by selecting the **Other file** option and entering the path (from SPLBASE) of a valid configuration file. `etc/ENVIRON.INI`, will, for example, display `$SPLEBASE/etc/ENVIRON.INI`.



**Figure 70: Viewing Configuration Files: Choose Configuration File**

5. Click **Submit** to display the file in the scrollable text area.

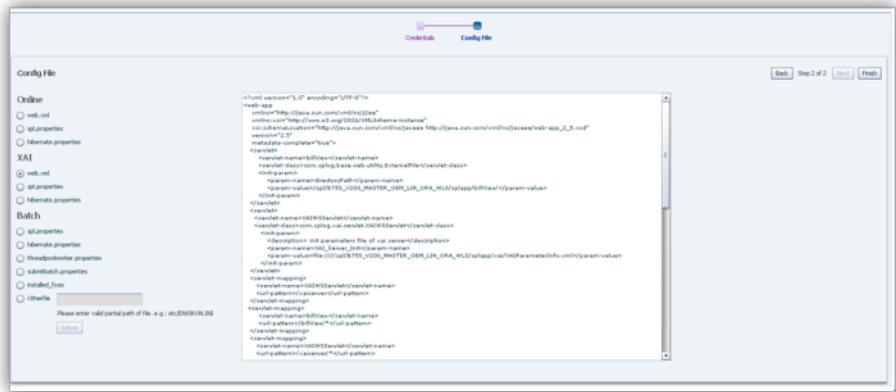


Figure 71: Viewing Configuration Files: View File

- After viewing the selected configuration file, you can select other configuration files to view, or click **Finish** to return to the Target UI Home Page.

**Note:** On non-WebLogic environments, viewing WebLogic-specific configuration files will generate a "file not found" error.

## Viewing Logs

The View Logs feature allows you to view the contents of log files, including the latest thread pool worker log, that are generated at the application server level.

To view logs:

- Open the **Target UI Home Page** and click the **View Logs** button in the **Common Operations** region.

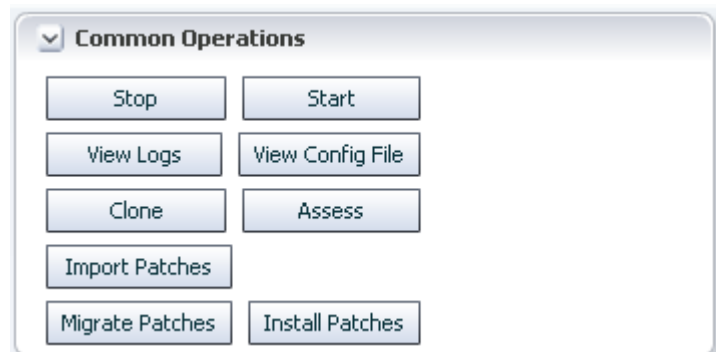


Figure 72: Target Home Page: Common Operations Region

- On the **Credentials** page, choose a set of saved server credentials or enter your user name and password, then click **Next** to proceed.



Credentials

Back Step 1 of 2 Next Cancel

HostCreds

Credential Preferred Credential ☒ Named Credential ☐ New Credentials ☐

Credential Name NEW\_CISSYS\_TEMP

Attribute	Value
Username	daisy
Password	*****

Credential Details

More Details

LocalCredsType

Credential Preferred Credential ☐ Named Credential ☒ New Credentials ☐

Credential Name PSOHE\_PSOHE

Attribute	Value
Username	daisy
Password	*****

Credential Details

More Details

Figure 73: Viewing Logs: Entering Credentials

3. The **Log Info** page offers a selection region to let you choose from among all available logs, as well as a display area for the selected log.

Log Info

Back Step 2 of 2 Next Finish

Log Type Please select a LogType...

Log Name select...

No. of Lines Enter the number of lines you would like to see. Eg: 100. If not complete log file will be displayed

Submit

Figure 74: Viewing Logs: Log Info

4. Choose a **Log Type** from the dropdown list.

**Log Info**

Log Type: Please select a LogType... ▾

Log Name: Application Logs

No. of Lines: Batch Logs

Enter the number of lines you would like to see.Eg:100.  
If not complete log file will be displayed

Submit

*Figure 75: Viewing Logs: Log Info: Choose Log Type*

5. Choose a **Log Name** from the dropdown list.

**Log Info**

Log Type: Application Logs ▾

Log Name: --select-- ▾

No. of Lines: spl\_web.log

weblogic\_current.log

spl\_service.log

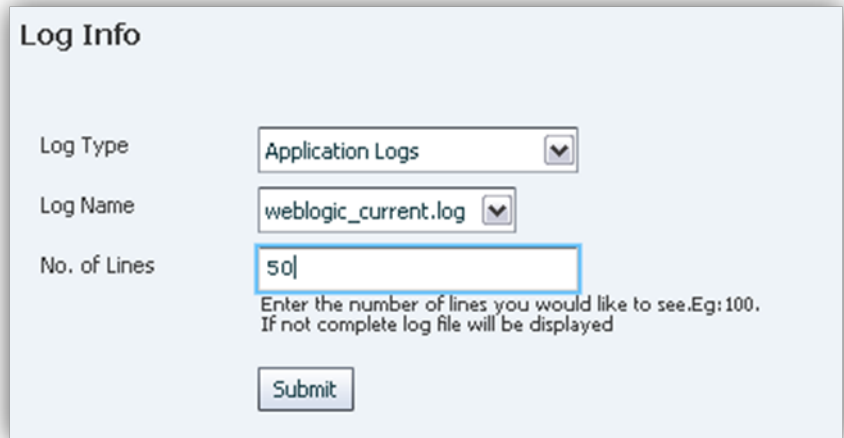
wl\_domain.log

mpl.log

Enter the number of lines you would like to see.Eg:100.  
If not complete log file will be displayed

*Figure 76: Viewing Logs: Log Info: Choose Log Name*

6. Enter the number of lines that you would like to view from the selected log. If no value is entered or the value exceeds the number of lines in the selected log, the complete log is displayed.



**Log Info**

Log Type:

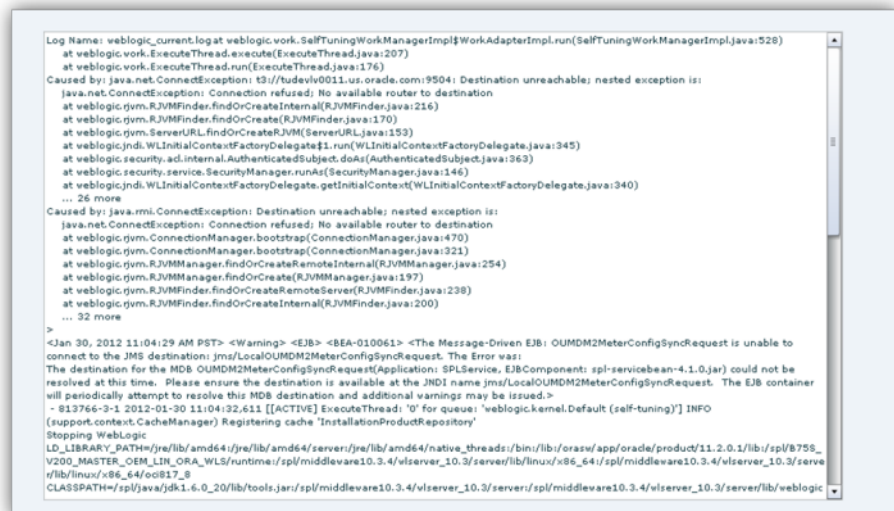
Log Name:

No. of Lines:

Enter the number of lines you would like to see.Eg: 100.  
If not complete log file will be displayed

**Figure 77: Viewing Logs: Log Info: Set Line Limit**

- Click **Submit** to display the log in the scrollable text area.



```

Log Name: weblogic_current.log at weblogic.vork.SelfTuningWorkManagerImpl$WorkAdapterImpl.run(SelfTuningWorkManagerImpl.java:528)
at weblogic.vork.ExecuteThread.execute(ExecuteThread.java:207)
at weblogic.vork.ExecuteThread.run(ExecuteThread.java:176)
Caused by: java.net.ConnectException: t3://tudeviv0011.us.oracle.com:9504: Destination unreachable; nested exception is:
java.net.ConnectException: Connection refused: No available router to destination
at weblogic.dym.RJVMFinder.findOrCreateInternal(RJVMFinder.java:216)
at weblogic.dym.RJVMFinder.findOrCreate(RJVMFinder.java:170)
at weblogic.dym.ServerURL.findOrCreate(RJVMFinder.java:153)
at weblogic.jndi.WLInitialContextFactoryDelegate$1.run(WLInitialContextFactoryDelegate.java:345)
at weblogic.security.ad.internal.AuthenticatedSubject.doAs(AuthenticatedSubject.java:363)
at weblogic.security.service.SecurityManager.runAs(SecurityManager.java:146)
at weblogic.jndi.WLInitialContextFactoryDelegate.getInitialContext(WLInitialContextFactoryDelegate.java:340)
... 26 more
Caused by: java.rmi.ConnectException: Destination unreachable; nested exception is:
java.net.ConnectException: Connection refused: No available router to destination
at weblogic.dym.ConnectionManager.bootstrap(ConnectionManager.java:470)
at weblogic.dym.ConnectionManager.bootstrap(ConnectionManager.java:321)
at weblogic.dym.RJVMManager.findOrCreateRemoteInternal(RJVMManager.java:254)
at weblogic.dym.RJVMManager.findOrCreate(RJVMManager.java:197)
at weblogic.dym.RJVMFinder.findOrCreateRemoteServer(RJVMFinder.java:238)
at weblogic.dym.RJVMFinder.findOrCreateInternal(RJVMFinder.java:200)
... 32 more
>
<Jan 30, 2012 11:04:29 AM PST> <Warning> <EJB> <BEA-010061> <The Message-Driven EJB: OUMDM2MeterConfigSynchRequest is unable to
connect to the JMS destination: jms/LocalOUMDM2MeterConfigSynchRequest. The Error was:
The destination for the MDB OUMDM2MeterConfigSynchRequest(Application: SPLService, EJBComponent: spl-servicebean-4.1.0.jar) could not be
resolved at this time. Please ensure the destination is available at the JNDI name jms/LocalOUMDM2MeterConfigSynchRequest. The EJB container
will periodically attempt to resolve this MDB destination and additional warnings may be issued.>
- 813766-3-1 2012-01-30 11:04:32,611 [[ACTIVE]] ExecuteThread: '0' for queue: 'weblogic.kernel.Default (self-tuning)' INFO
(support.context.CacheManager) Registering cache 'InstallationProductRepository'
Stopping WebLogic
LD_LIBRARY_PATH=/jre/lib/amd64/jre/lib/amd64/server/jre/lib/amd64/native_threads/bi/lib/orasw/app/oracle/product/11.2.0.1/lib/spl/8758_
V200_MASTER_OEM_LIB_ORA_WLS/runtime:/spl/middleware10.3.4/vlserver_10.3/server/lib/linux/x86_64/spl/middleware10.3.4/vlserver_10.3/serve
r/lib/linux/x86_64/oc817_8
CLASSPATH=/spl/java/jdk1.6.0_20/lib/tools.jar:/spl/middleware10.3.4/vlserver_10.3/server/spl/middleware10.3.4/vlserver_10.3/server/lib/weblogic

```

**Figure 78: Viewing Logs: Log Info: View File**

- After viewing the selected log, you can select other logs to view, or click **Finish** to return to the Target UI Home Page.

**Note:** On non-WebLogic environments, viewing WebLogic-specific logs will generate a "file not found" error.

## Tips and Troubleshooting

- Discovery log files can be found in the agent discovery scripts directory. A directory named `log` is created and the discovery log files are named `ouaf_oem*.log`.
- Environment-specific log files can be found in `$SPLEBASE/logs/system`, and are named `ouaf_oem*.log`.

## Documentation Accessibility

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