Oracle® Enterprise Manager

Application Management Pack for Oracle Utilities

Administration Guide

E27032-02

May 2012

Application Management Pack for Oracle Utilities 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 Utilities 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 Utilities.

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 12*c* is available.

This document and other Application Management Pack for Oracle Utilities-specific documentation is available in the **Oracle Utilities 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).

> **Note:** The documentation that accompanies this product is subject to revision and updating. Additional information that may relate to the functionality and features in this product may be found in article number **1456097.1** on *My Oracle Support (MOS) https://support.oracle.com* (sign-in required).

ORACLE®

Architecture

Plug-in Architecture

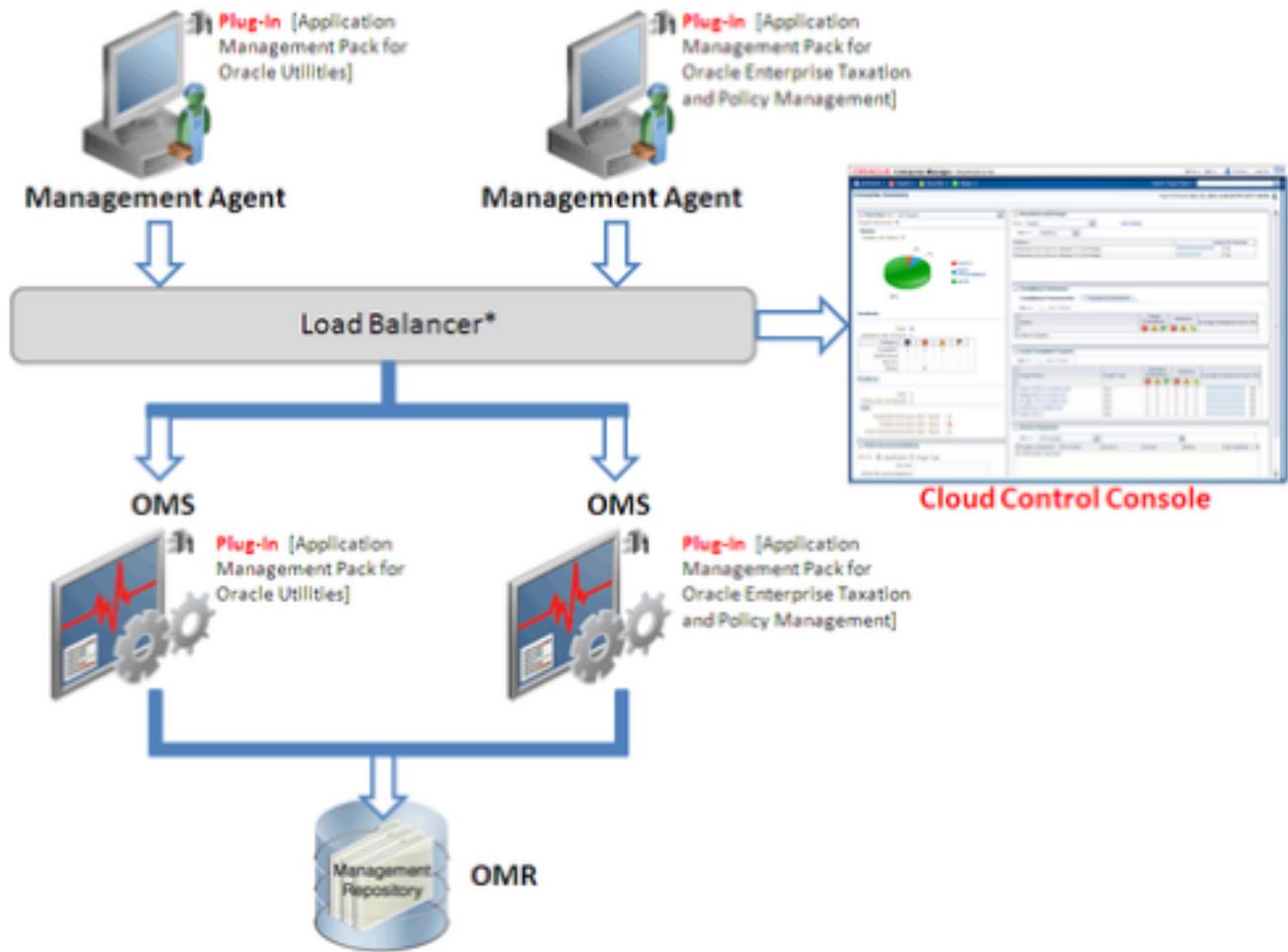The following diagram illustrates the Application Management Pack for Oracle Utilities architecture.

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 Utilities provides a discovery framework and the functionality to monitor an Oracle Utilities 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**.
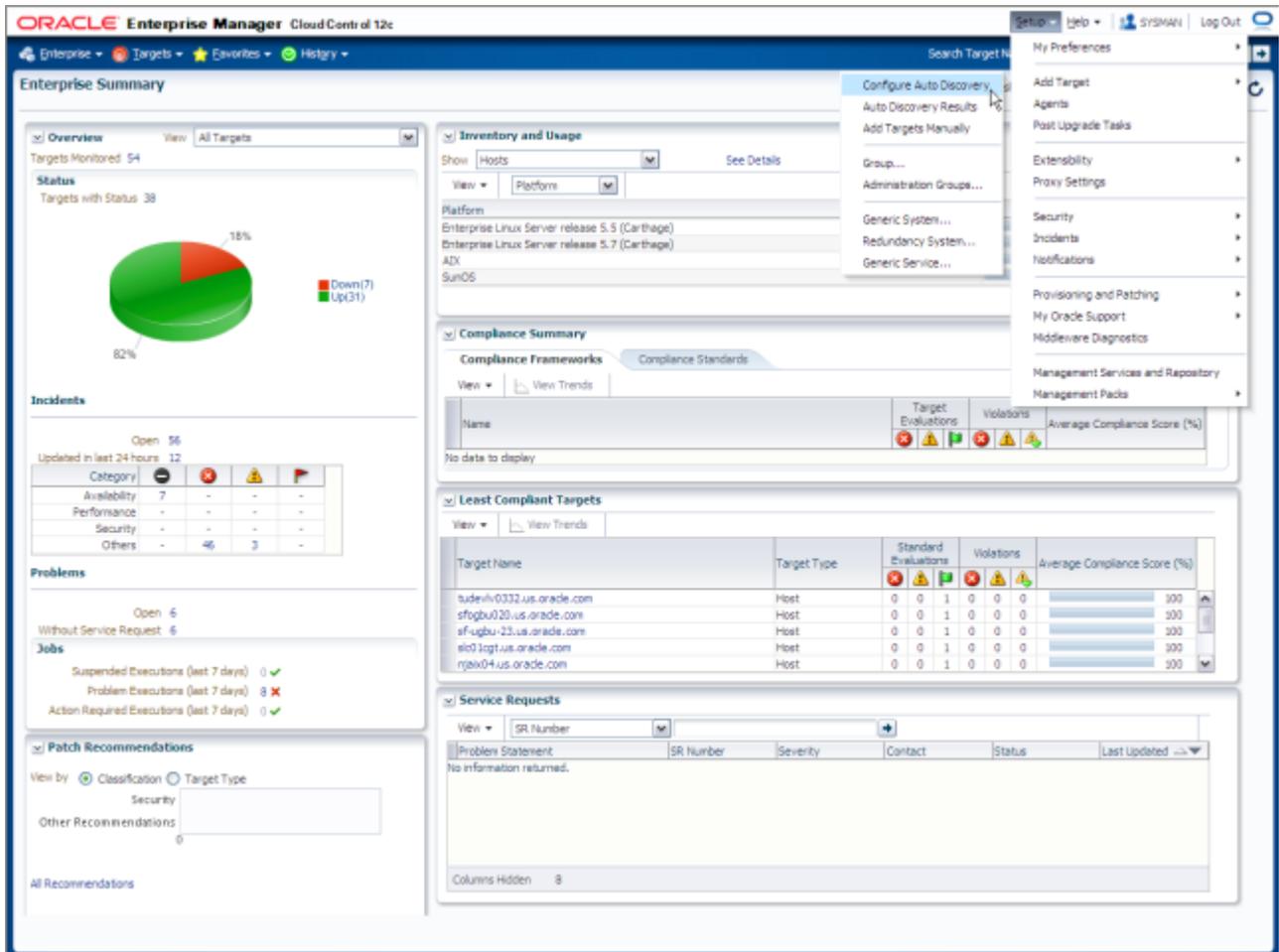
Figure 2: Selecting Auto Discovery

3. On the **Configure Auto Discovery** page, select the **Application Management Pack for Oracle Utilities** module in the **Discovery Module** list, then click the item's **Configure** icon.
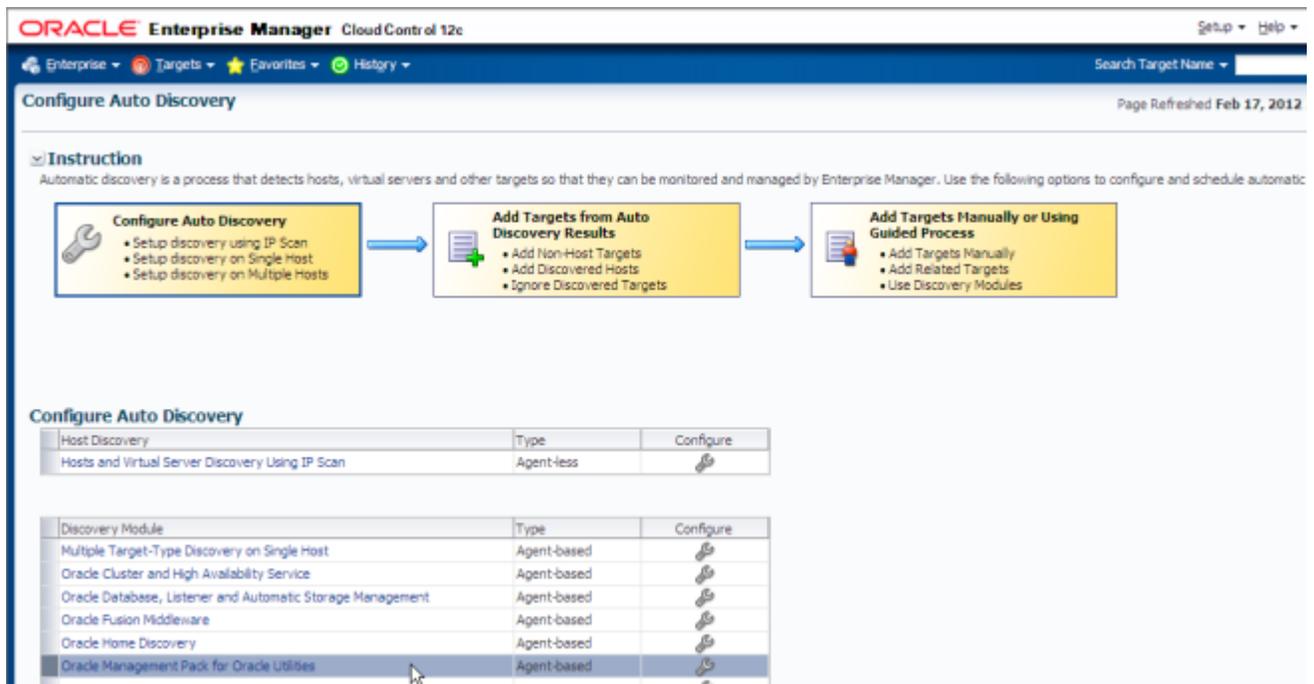
Figure 3: Configuring Auto Discovery

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.

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

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

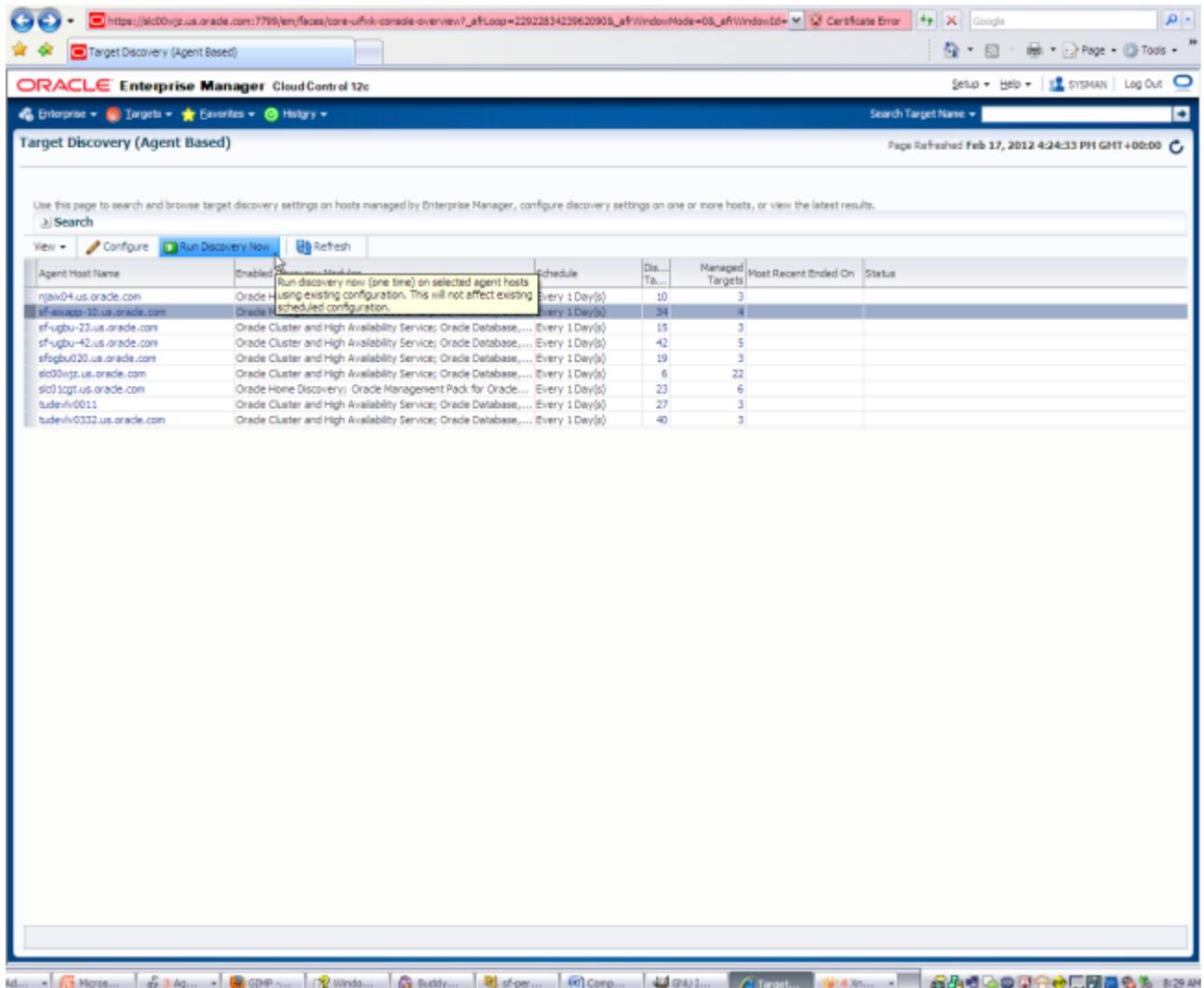6. Choose the host to discover and press the **Run Discovery Now** button.

Figure 6: Choosing a host to discover

A confirmation dialog appears on successful discovery of the host.

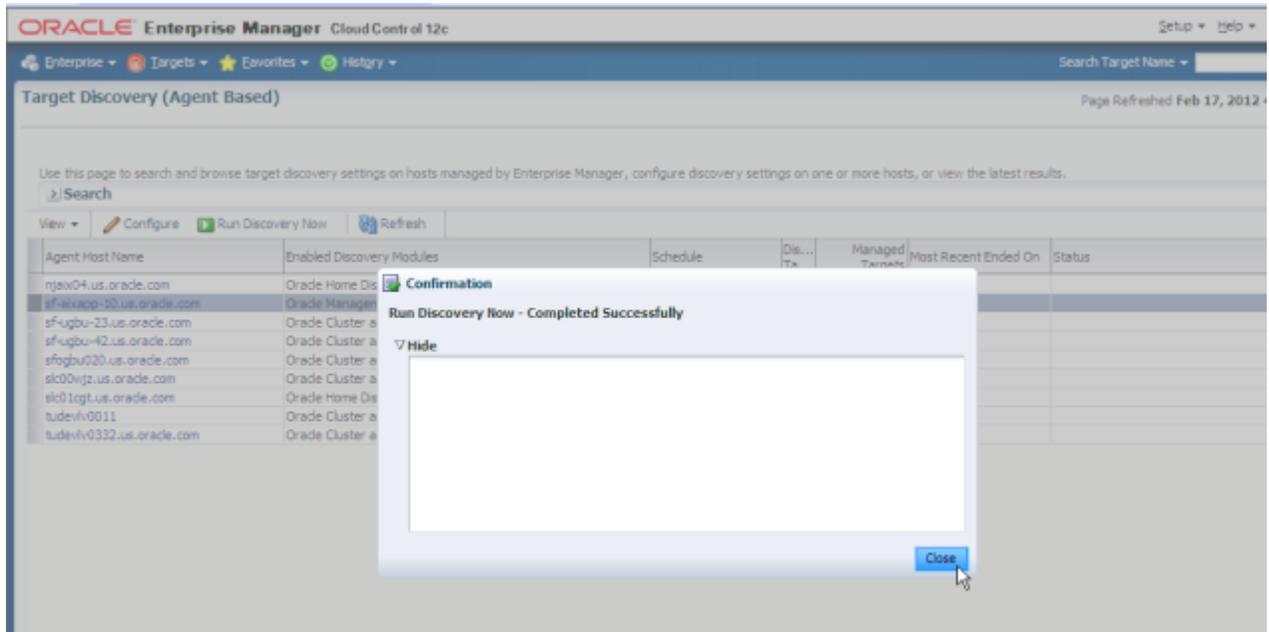**7.** Click **Close** to dismiss the confirmation dialog.

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**.

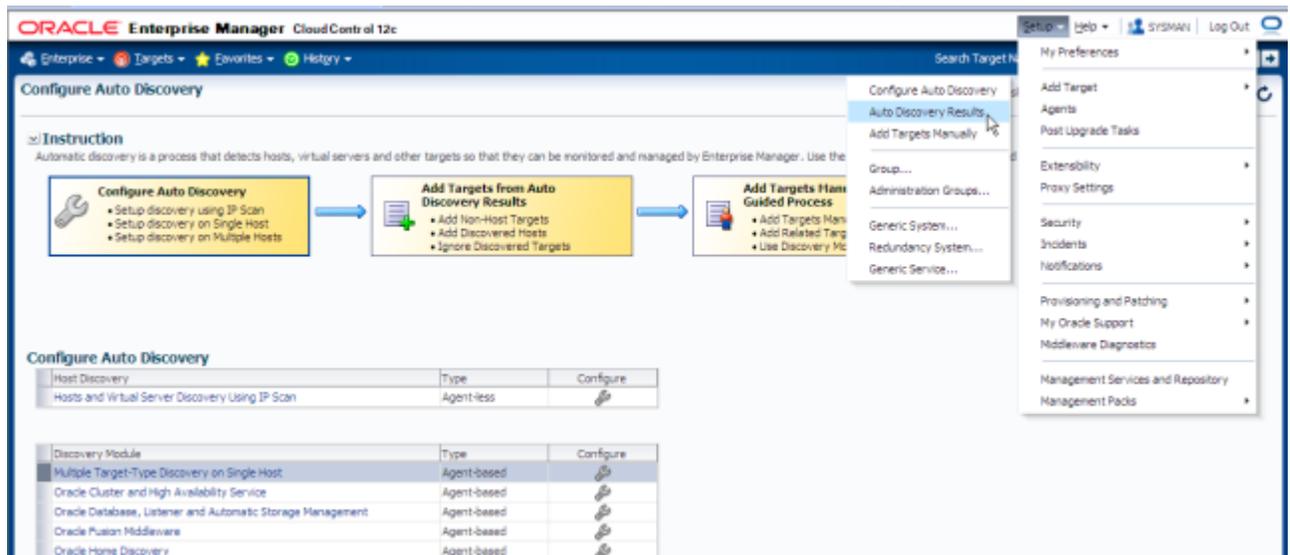   The **Target Discovery (Agent Based)** window opens.

Figure 8: Target Discovery (Agent Based) window

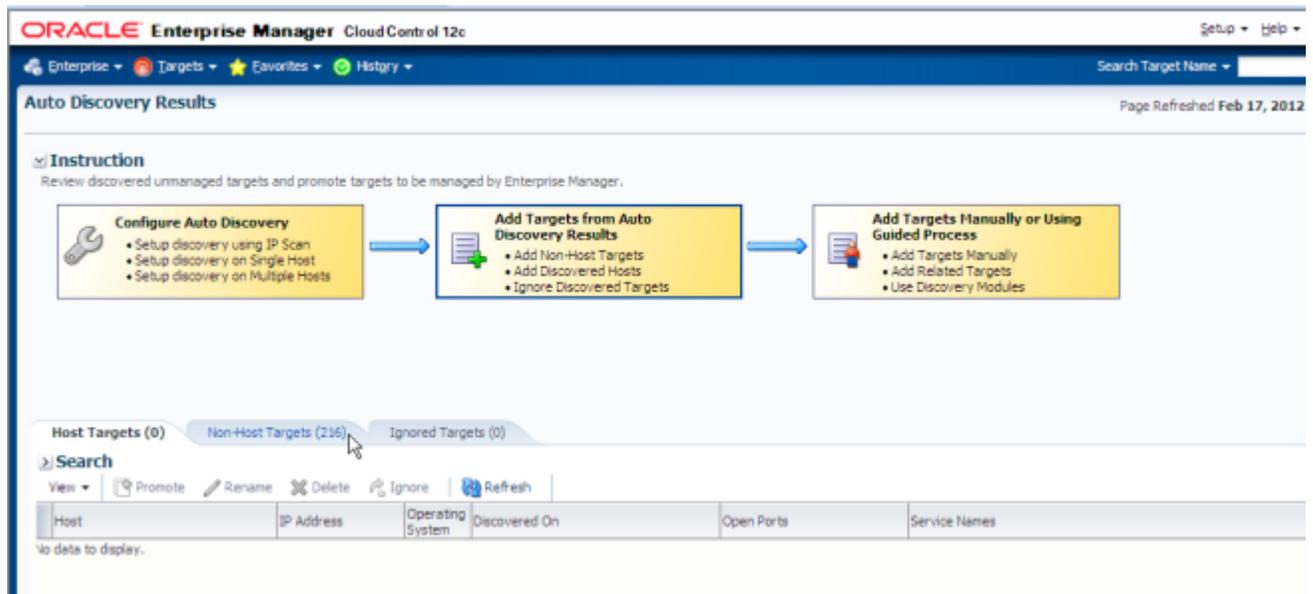3. Click the **Non-Host Targets** tab.

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.
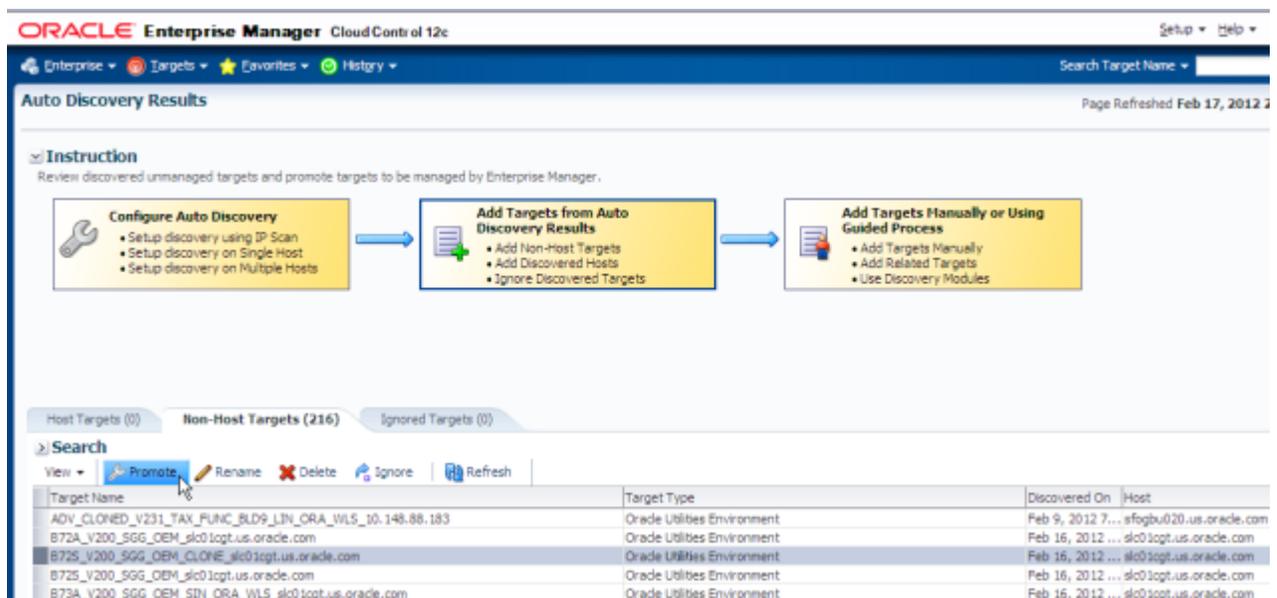

Figure 10: Promoting a target environment

5. The **Promote Unmanaged Target** window appears, displaying properties for the target. Press the **Promote** button.
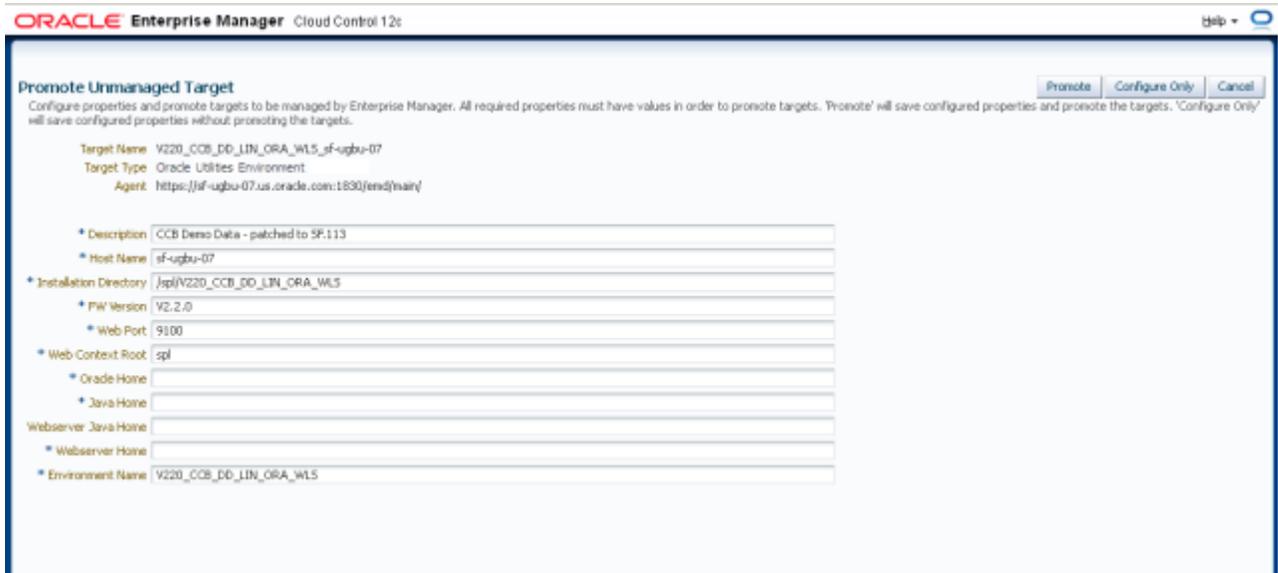
Most of the fields are pre-populated, but, depending on the Framework version of the target environment, some fields may need to be filled in.

For all Framework version 2.2.0-based target environments, enter the location for Oracle Home and Java Home.

For all Framework version 2.2.0 based environments running on Linux with WebLogic, enter (in addition to Java Home and Oracle Home) the Web Server Home and Web Server Java Home values. Note that Web Server Home is the location on which the WebLogic software is installed (e.g., `/spl/middleware10.3.3./wlserver_10.3`). Web Server Java Home is the Java location that is used as JAVA_HOME by the Web Server. For WebLogic servers on Linux, it is same value as JROCKIT_HOME.

A confirmation dialog appears when the promotion is successful.

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

7. If any changes are made to the environment configuration using the command-line utilities (e.g., `configureEnv.sh/cmd`), the corresponding changes must also be made to the target properties. The quickest way to do this is to remove the target and perform the discovery and promotion process. You can also make changes by choosing **Target** > **Setup** > **Monitoring Configuration** and making the appropriate updates on the UI page.

Figure 12: Monitoring Configuration

Viewing a Target's Home Page

To view a target's home page:

1. Log in to Enterprise Manager.

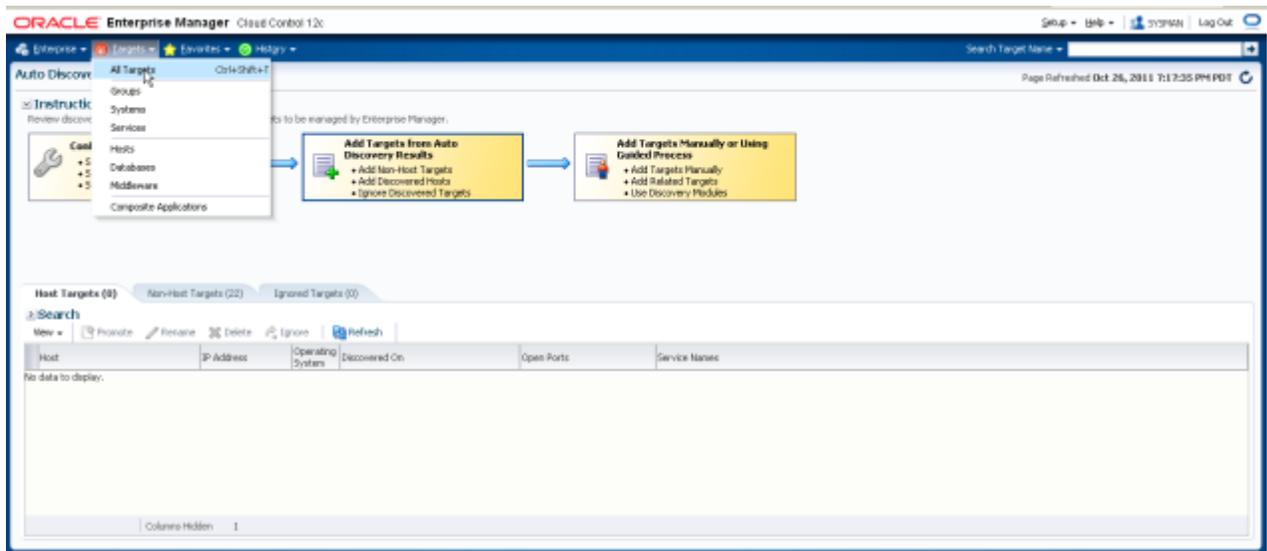**2.** Click **Targets** > **All Targets**.

Figure 13: Viewing all targets

3. To view its home page, locate and double-click a target from the sortable and searchable**All Targets** list.
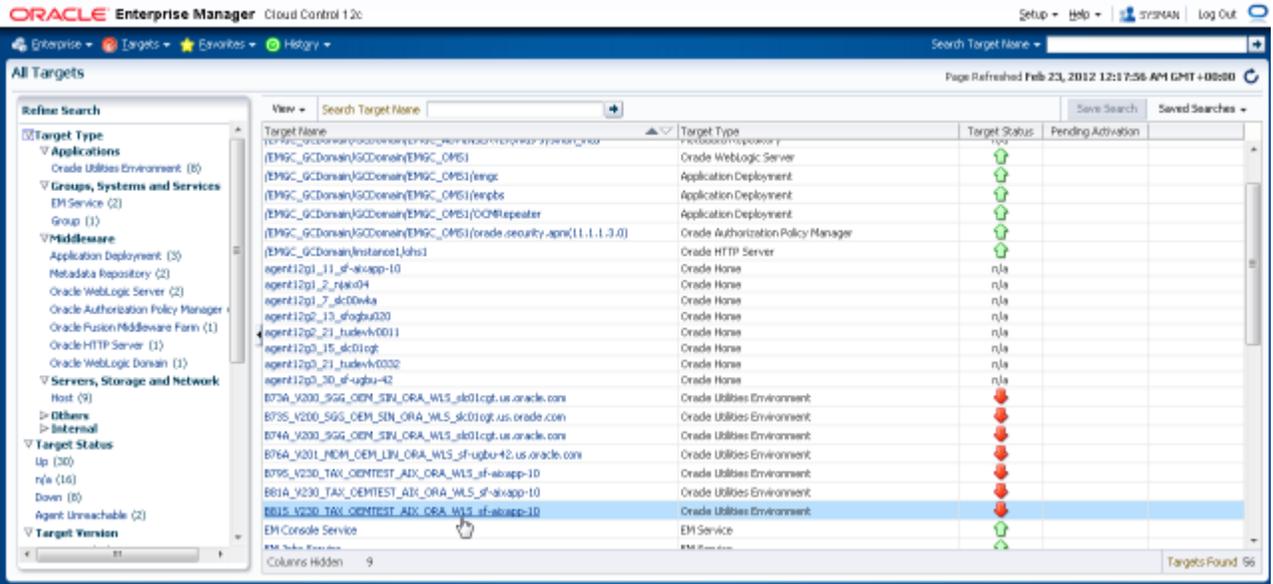
Figure 14: All Targets list

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.
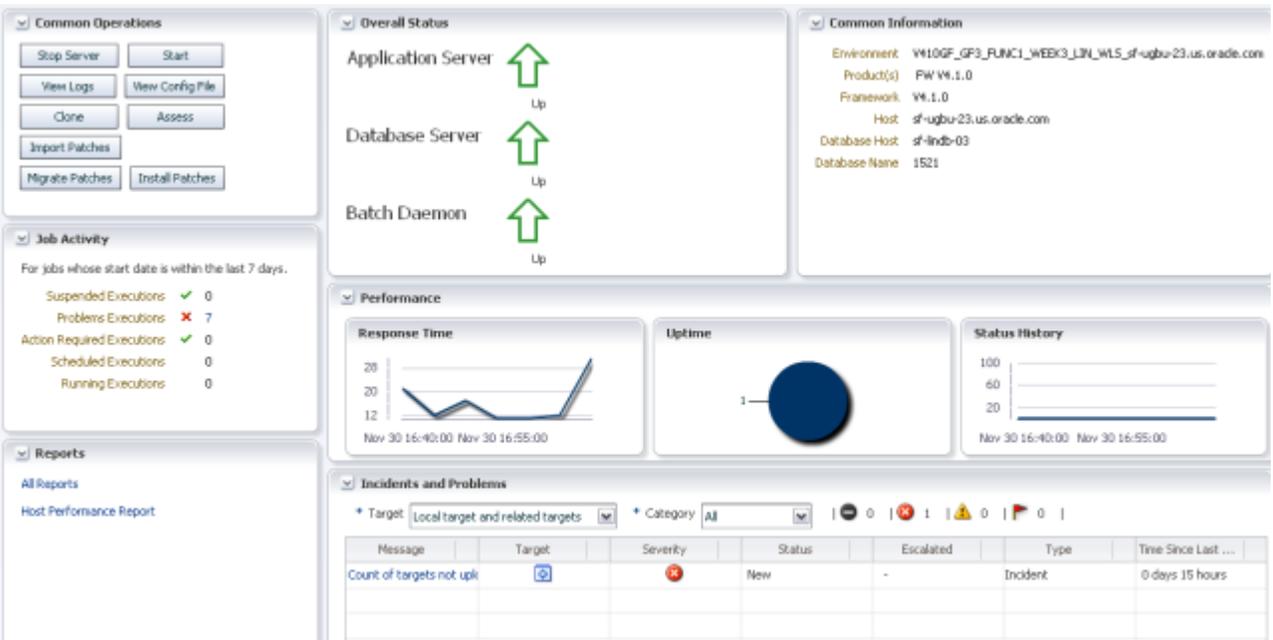

Figure 15: Target Home Page

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 utility must be available and installed in the environment's ORACLE_HOME/bin directory as specified on the target's properties.

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

> **Note:** The status of a target is collected at intervals by the agent and the results are transmitted back to OMS. Thus, the reported status is based on the last time the status was collected and uploaded from the agent to OMS.

Figure 16: 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.

⌄ Common Information	
Environment	V410GF_GF3_FUNC1_WEEK3_LIN_WLS_sf-ugbu-23.us.oracle.com
Product(s)	CCB V4.1.0
Framework	V4.1.0
Host	sf-ugbu-23.us.oracle.com
Database Host	sf-lindb-03
Database Name	FW410QGF

Figure 17: 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.
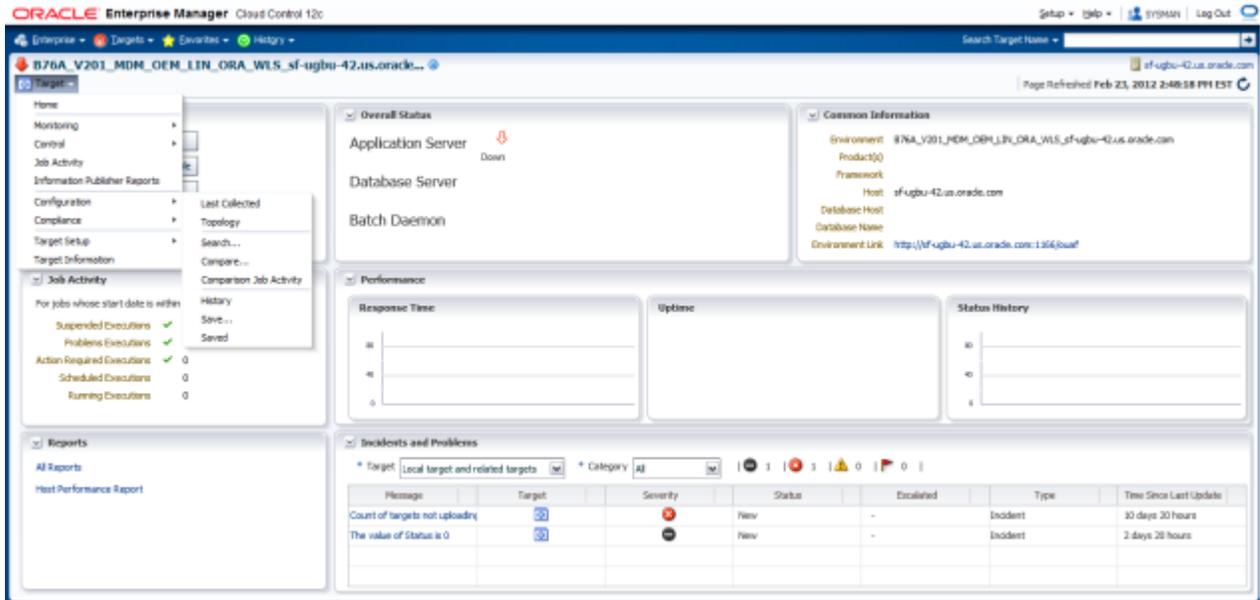
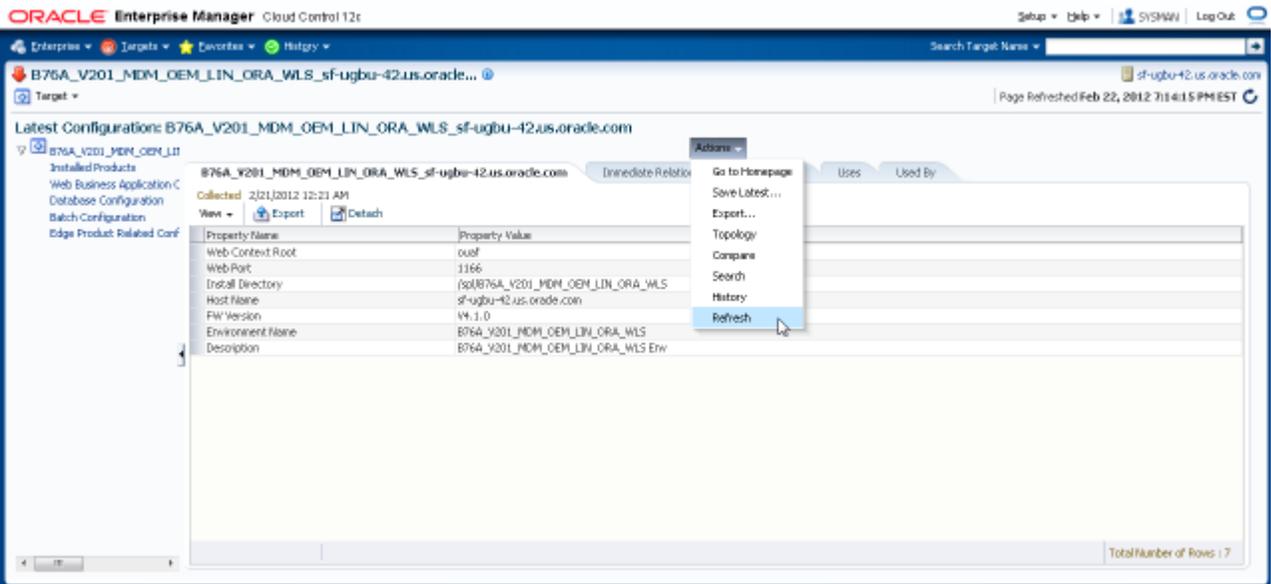*Figure 18: Target Home Page: Incomplete Common Information*

Figure 19: 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)

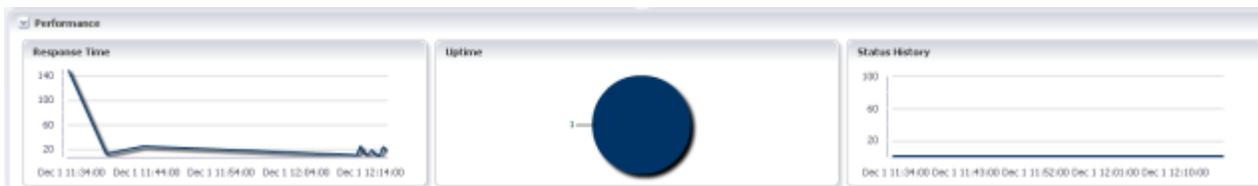- Historical up-time (displayed as a pie chart)

- Status history

Figure 20: 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.

These are job-based operations that run the appropriate utilities that an administrator would normally submit from the command line. As such, it is the administrator's responsibility to ensure that jobs submitted do not conflict with each other. For example, during patch installation, the **Start** button will still be available, so if a start job is submitted, that operation will interfere with the running patch process (and vice-versa).

Figure 21: 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. If run on a non-WebLogic environment, a pop-up is displayed to indicate that the start or stop operation is unavailable.
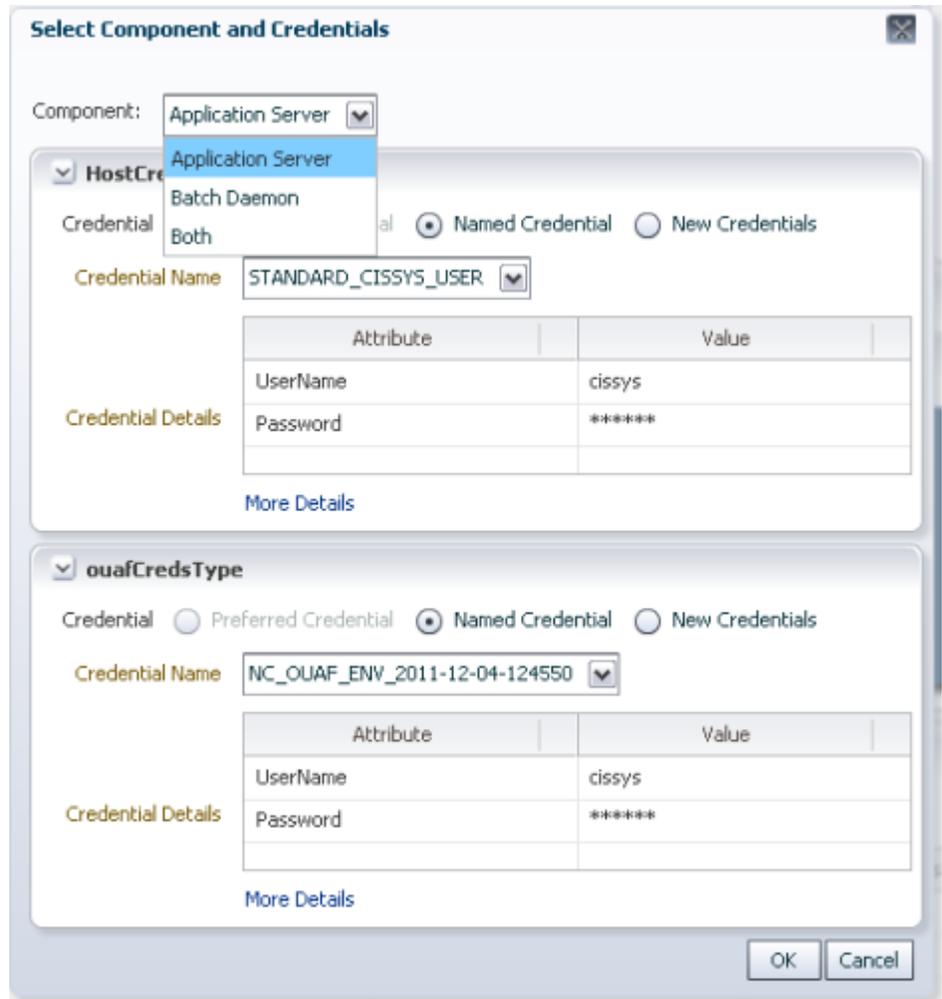
Figure 22: Credentials Dialog

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 `spl.sh`/`spl.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 Utilities (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 Utilities 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 Utilities 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:

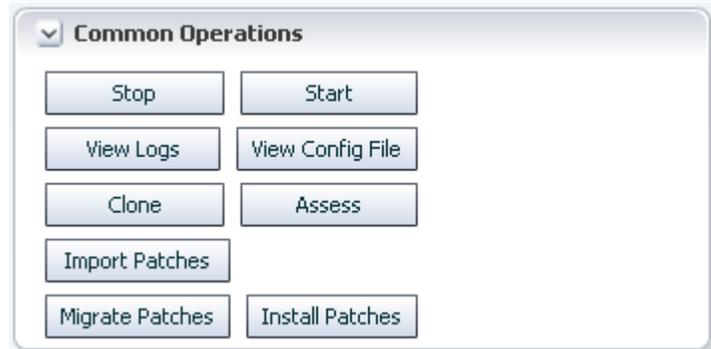**1.** Open the **Target UI Home Page** and click the **Assess** button in the **Common Operations** region.

Figure 23: 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 24: Environment Assessment: Entering Credentials

3. The **Result** page displays the results of the assessment.
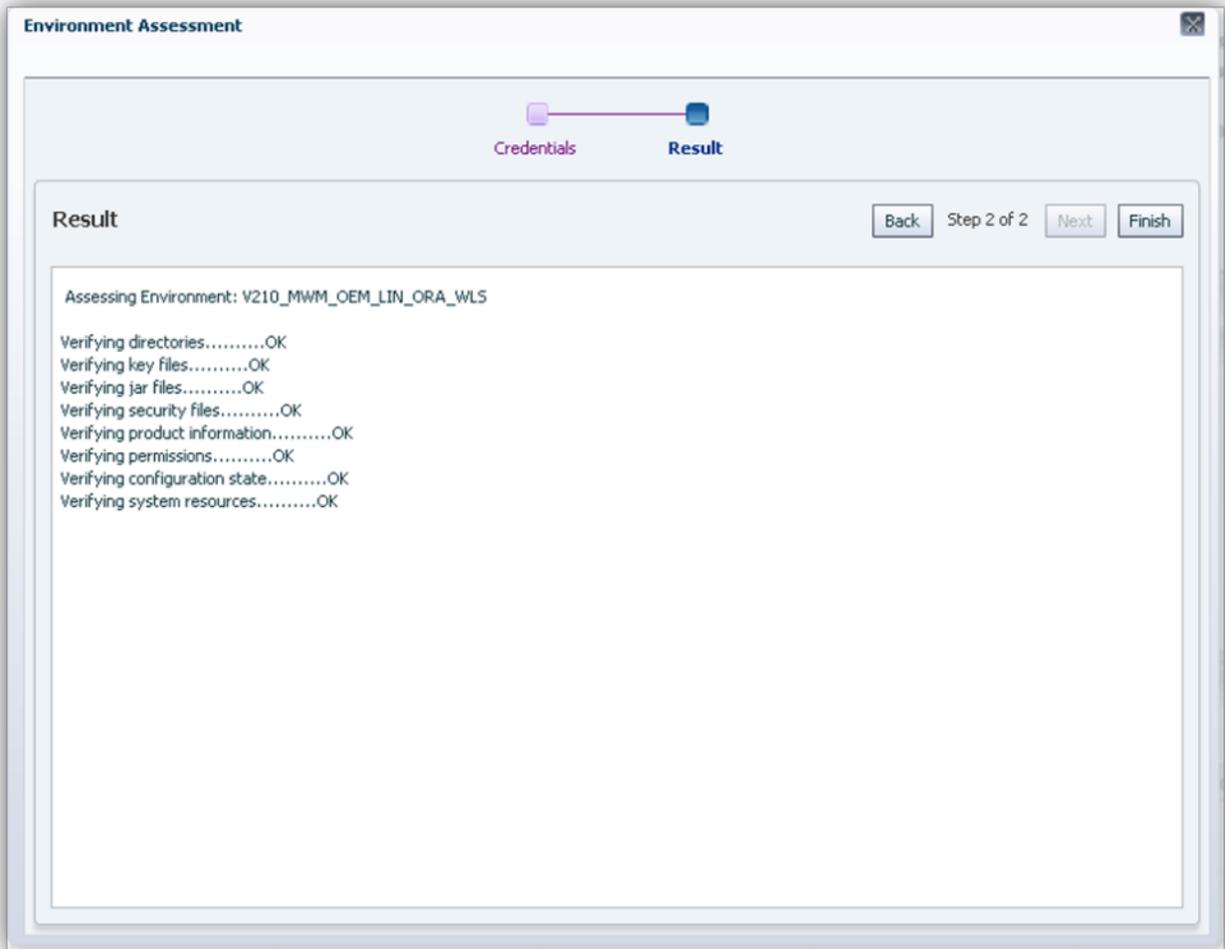
Figure 25: Environment Assessment: Result

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.
- This functionality is available for WebLogic environments only. It will fail on non-WebLogic environments.
- For WebLogic environments, an automatic shutdown is performed during Environment Cloning. Non-WebLogic environments must be shut down manually to avoid errors that can occur due to locked files.

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 26: 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 27: 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.
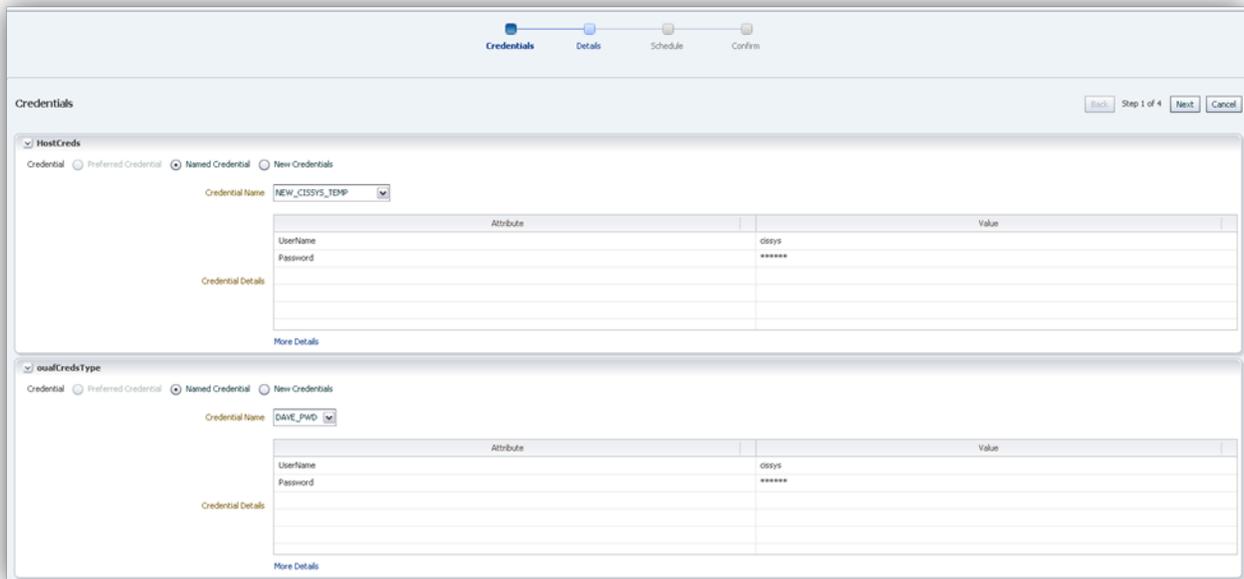
Figure 28: Simple Cloning: Entering Credentials

4. 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. Select the check box if you would like to restart the source environment. Click **Next** to proceed after the basic details are entered.

Figure 29: Simple Cloning: Entering Details

5. 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 30: 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.
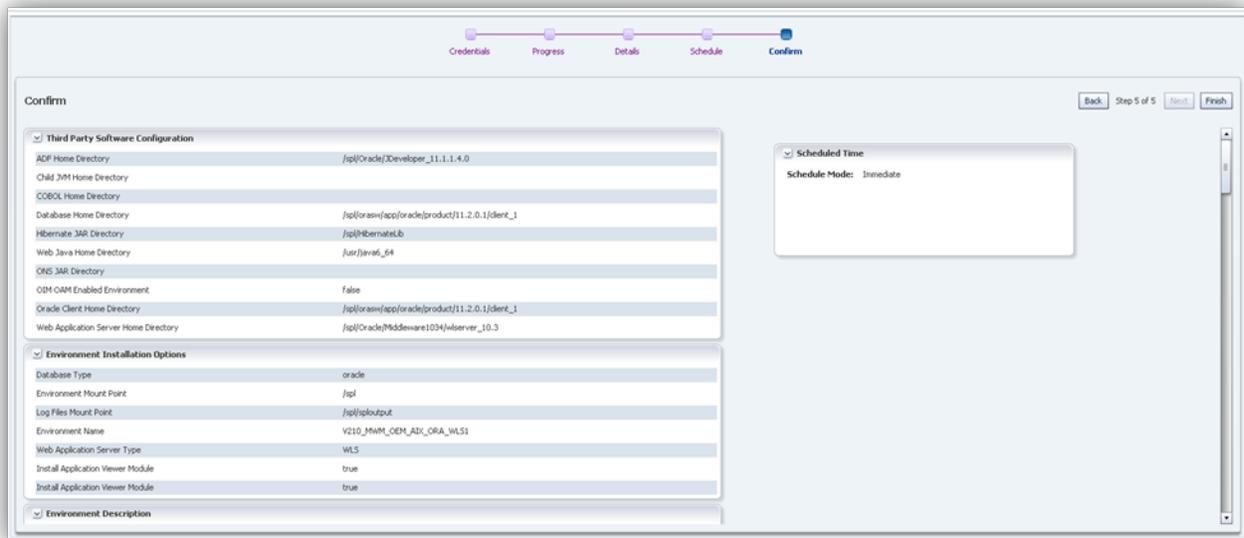

Figure 31: Simple Cloning: Confirmation

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` command-line utility. 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.
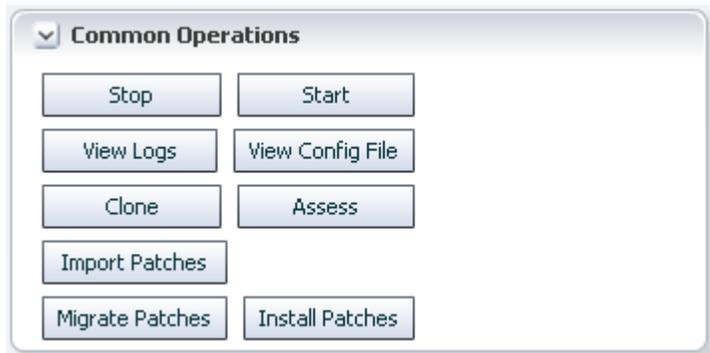
Figure 32: Target Home Page: Common Operations Region

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

Figure 33: 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 34: Advanced Cloning: Entering Credentials

4. The **Progress** page lets you know that required details are being collected from the source environment.
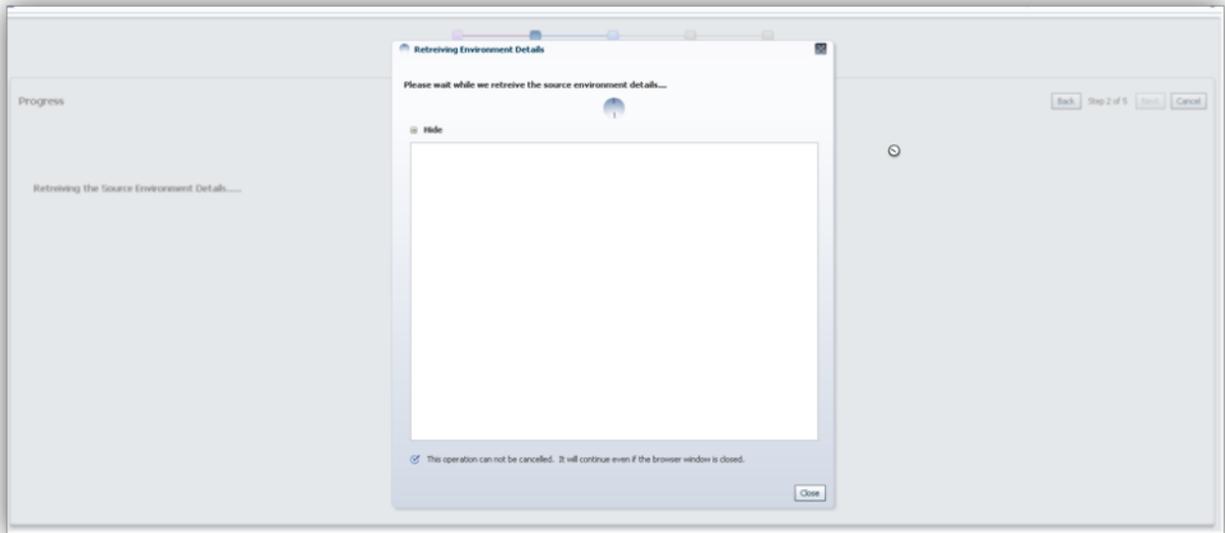
Figure 35: Advanced Cloning: Entering Details

> **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.
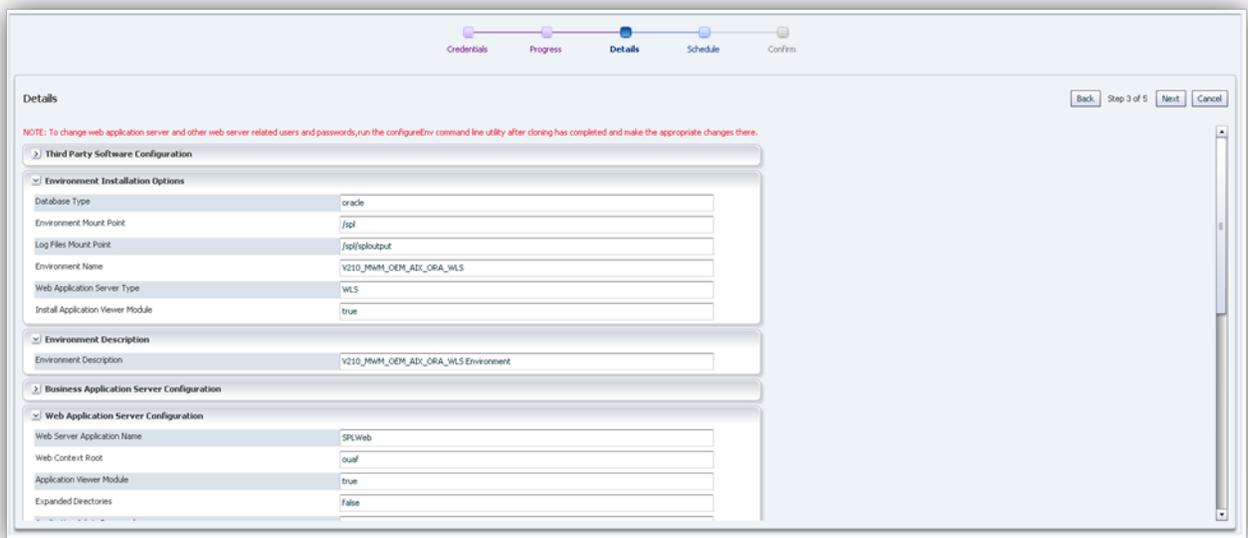
Figure 36: Advanced Cloning: Entering Details

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.

Figure 37: 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.

Figure 38: 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**.
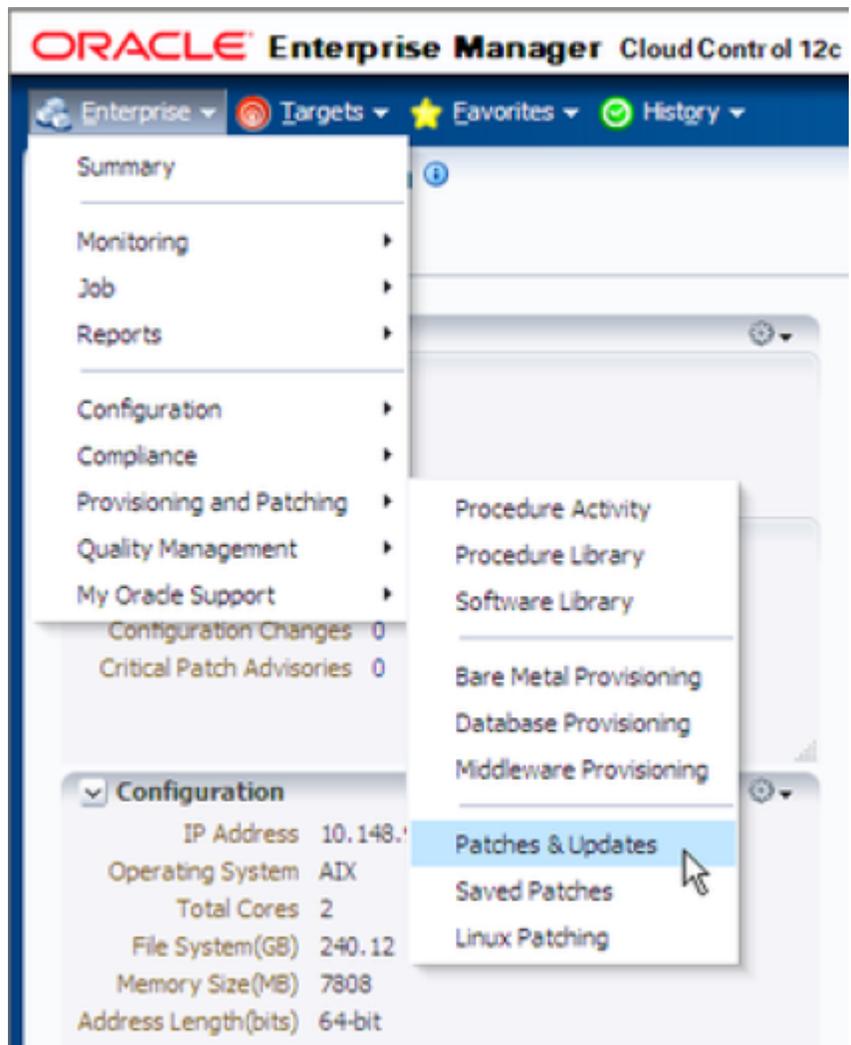
2. **Import** the downloaded patches: This process allows you to import downloaded patches which are subsequently unpackaged into a format that is compatible with the Application Management Pack's installation process.

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.

- During the installation process, WebLogic environments are shut down automatically using the command-line utility `spl.sh/spl.cmd`. Non-WebLogic environments must be shut down manually.

- 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.
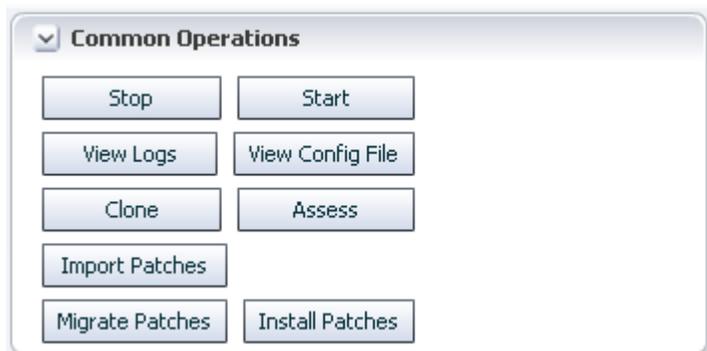
Figure 39: Target Home Page: Common Operations Region

2. The first page of the **Import Patches** walk-through appears. Click **Next.**.
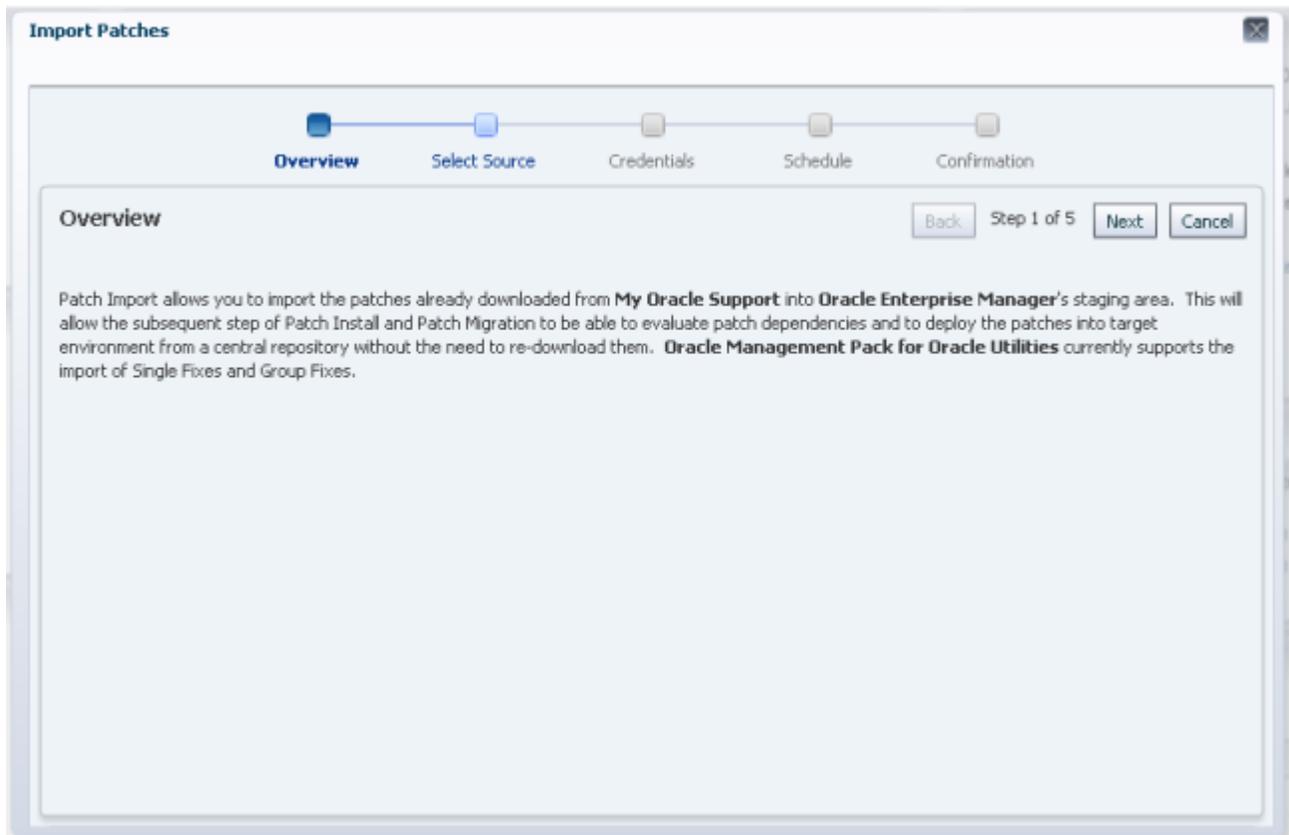
Figure 40: Import Patches: Overview

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**.
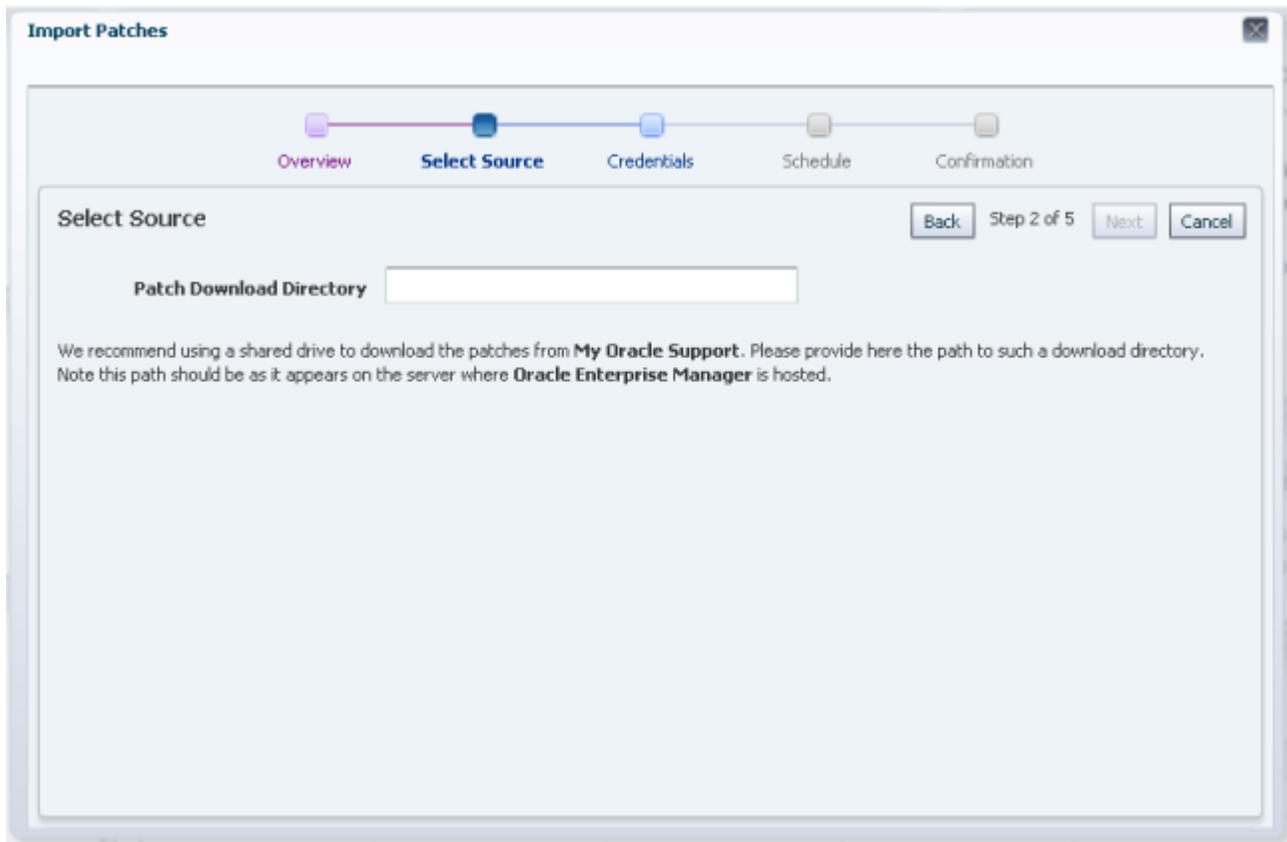
Figure 41: Import Patches: Select Source

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**.
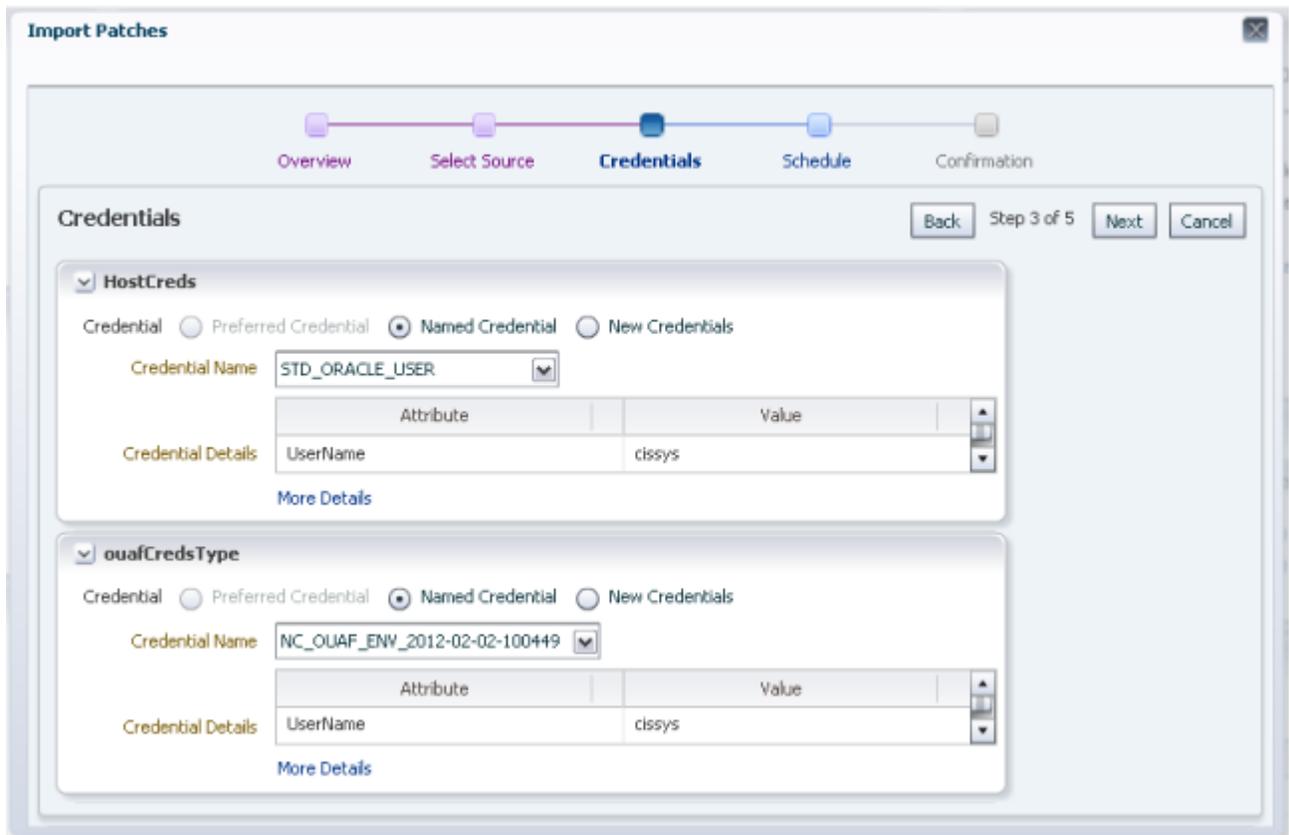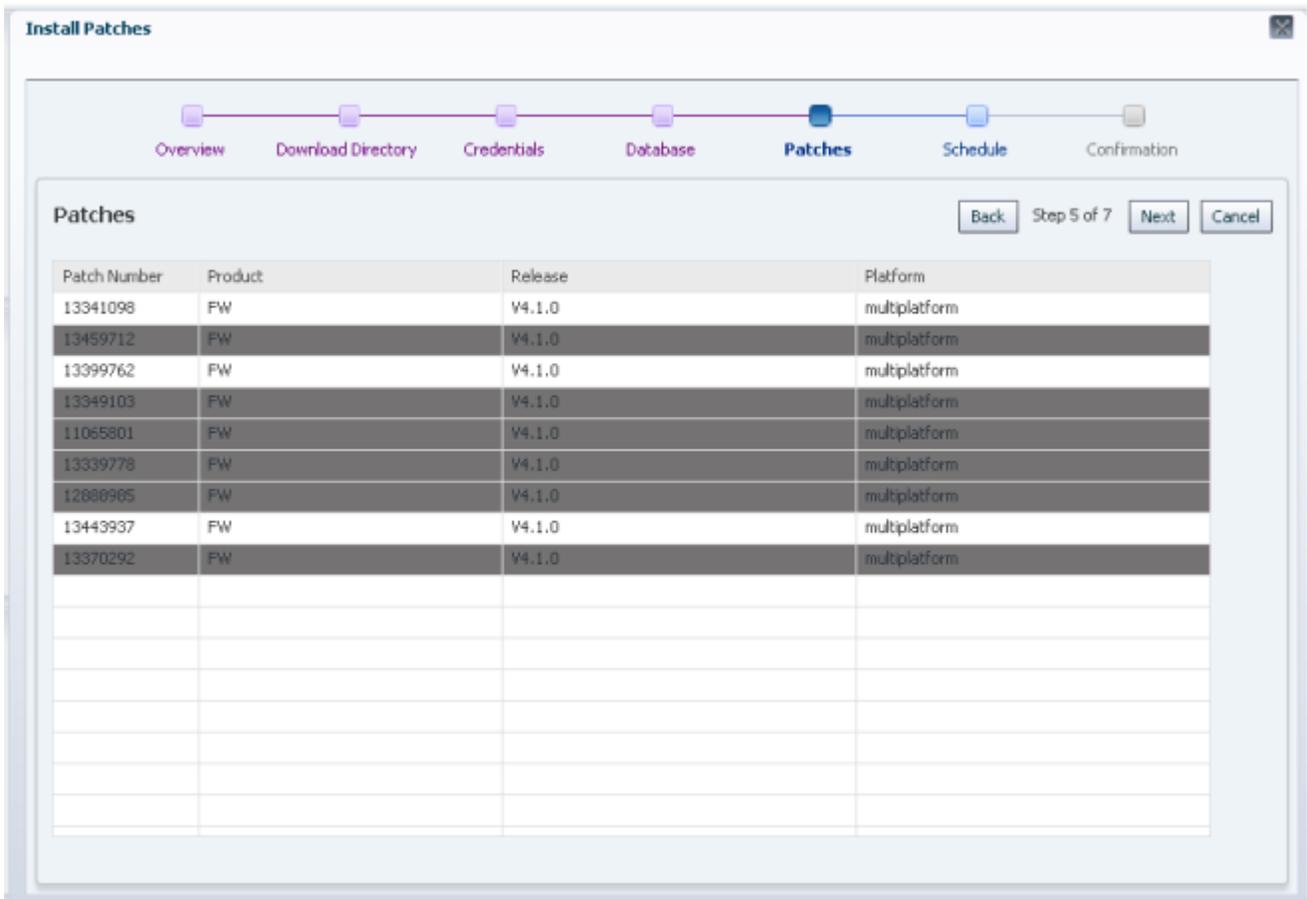
Figure 42: Import Patches: Credentials

5. 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.
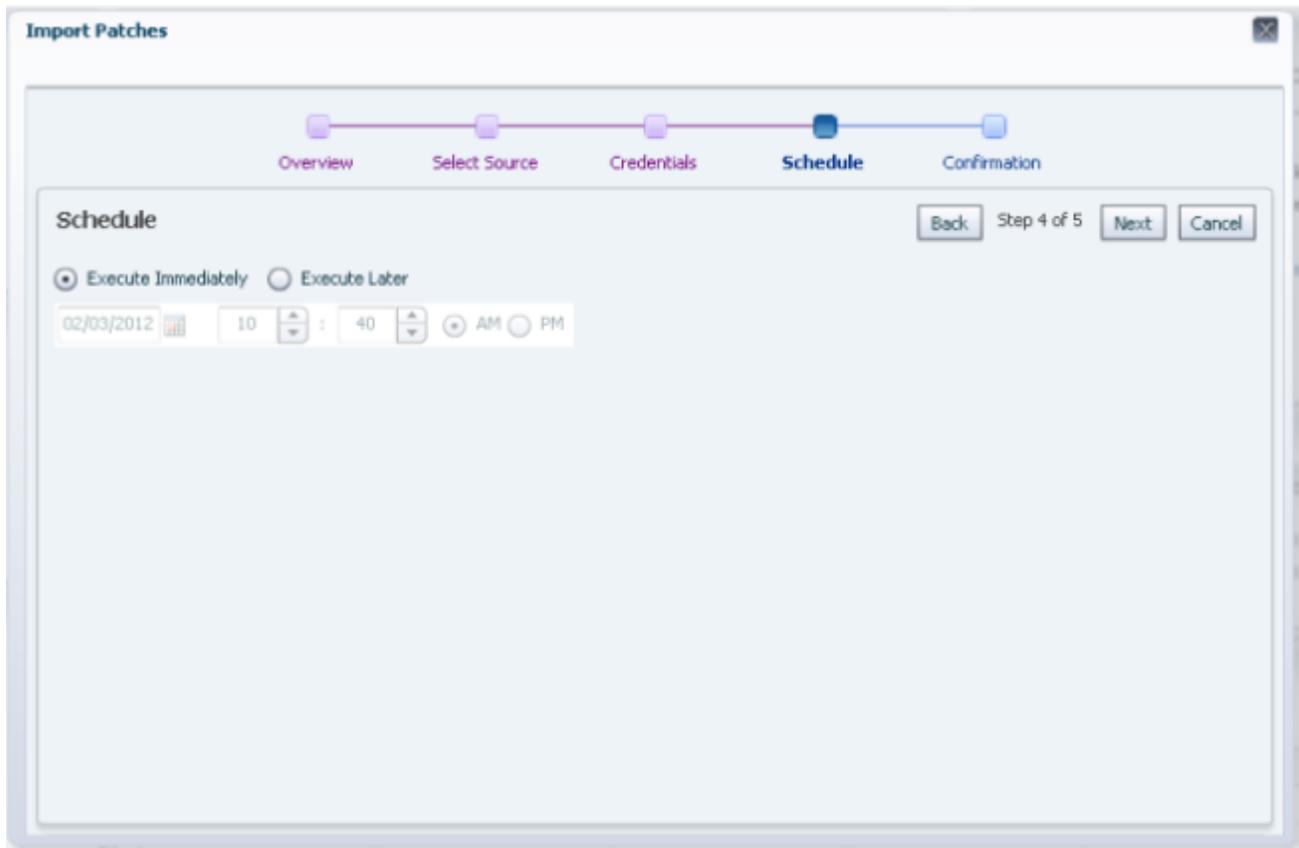
Figure 43: Import Patches: Schedule

> **6.** On the **Confirmation** page, click **Finish** to submit the patch import job.
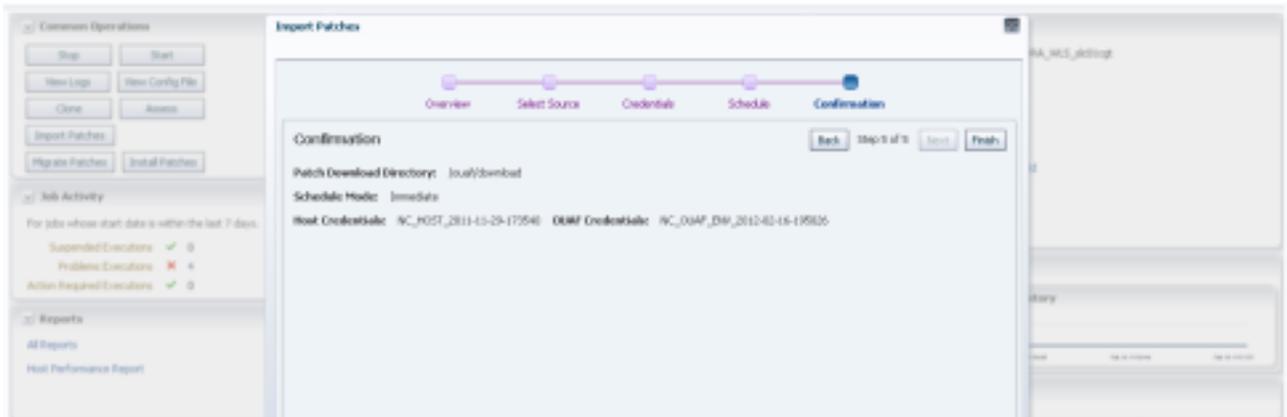
Figure 44: Import Patches: Confirmation

> 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 45: Target Home Page: Common Operations Region

2. The first page of the **Install Patches** walk-through appears. Click **Next.**.
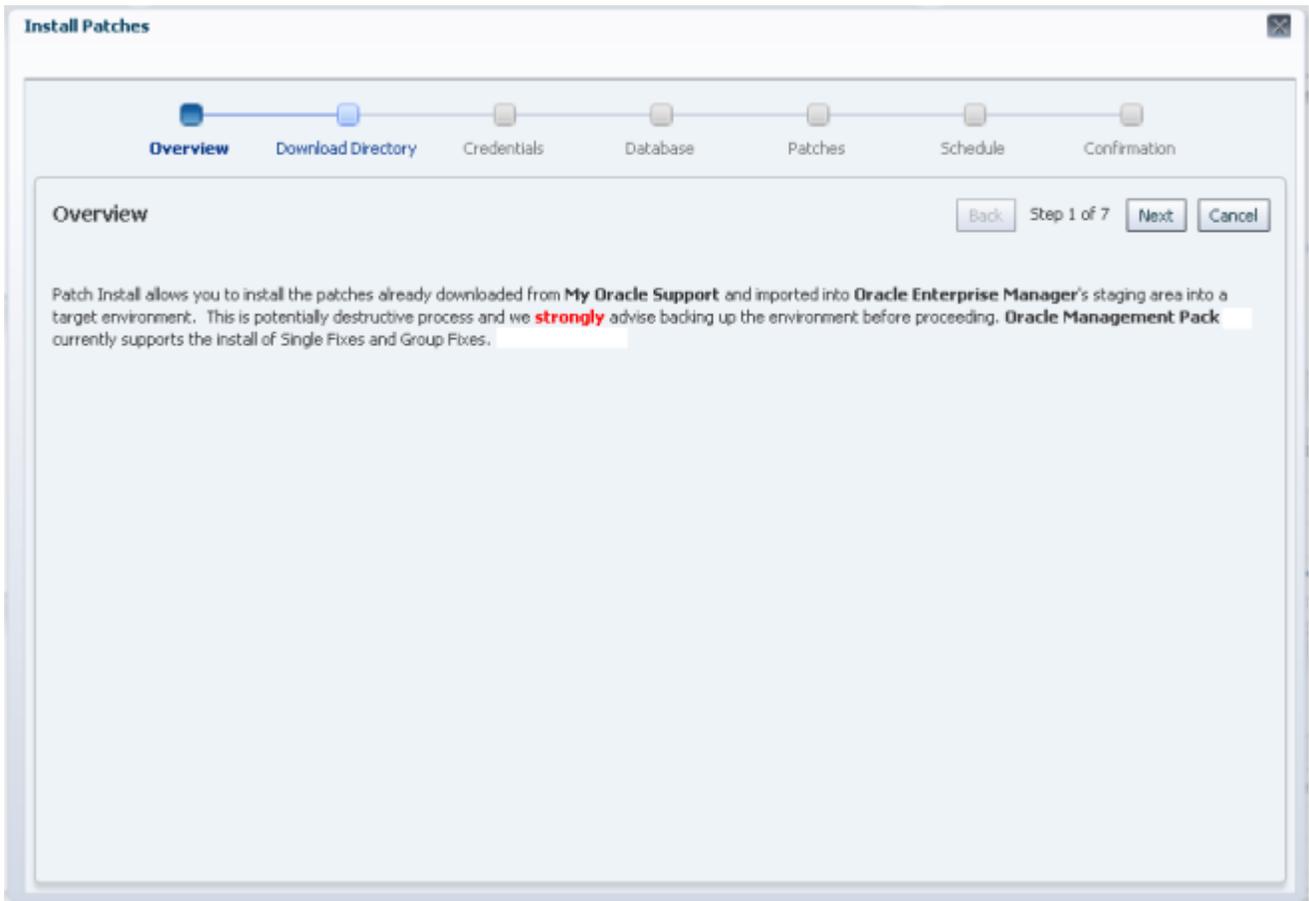
Figure 46: Install Patches: Overview

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.
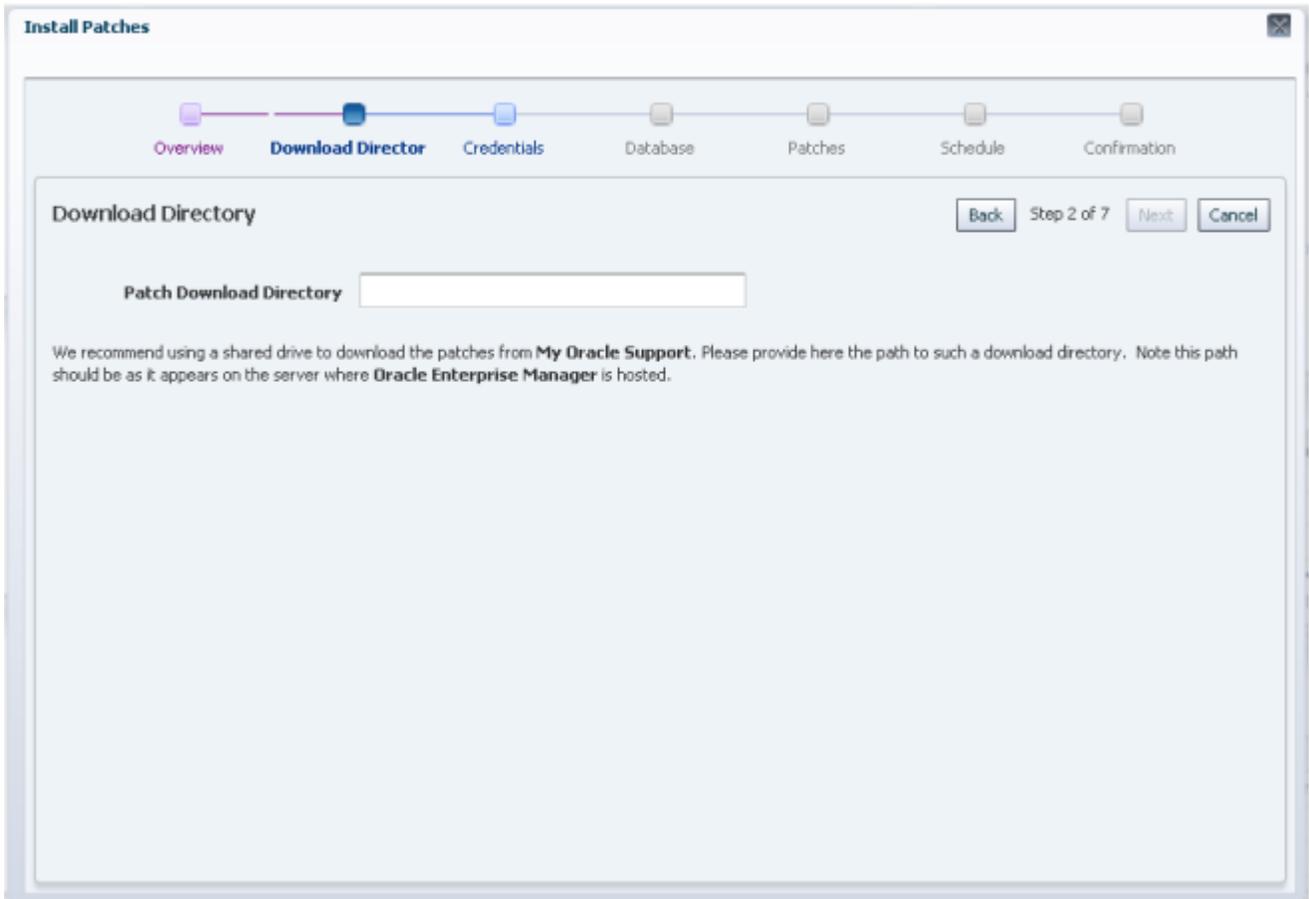
Figure 47: Install Patches: Download Directory

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.
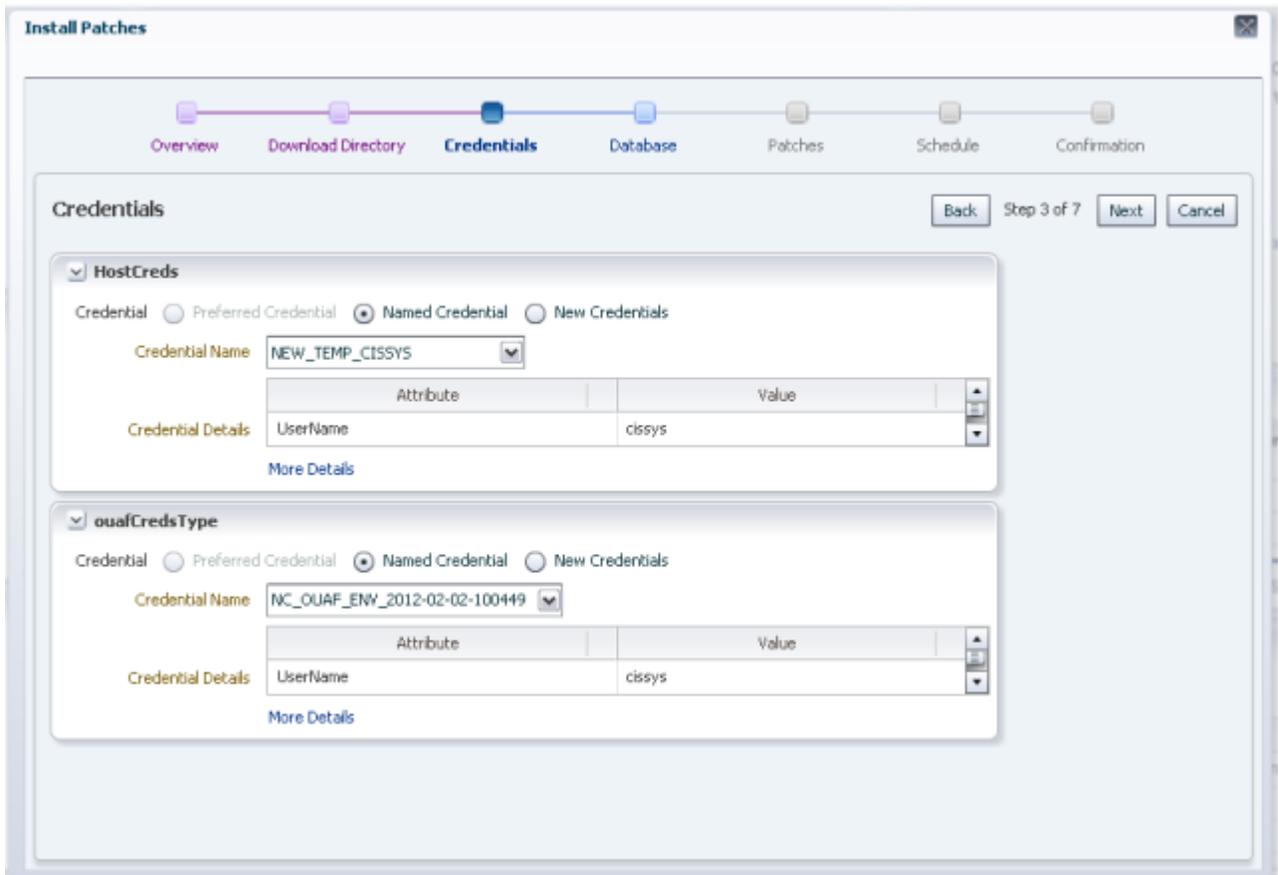
Figure 48: Install Patches: Credentials

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.
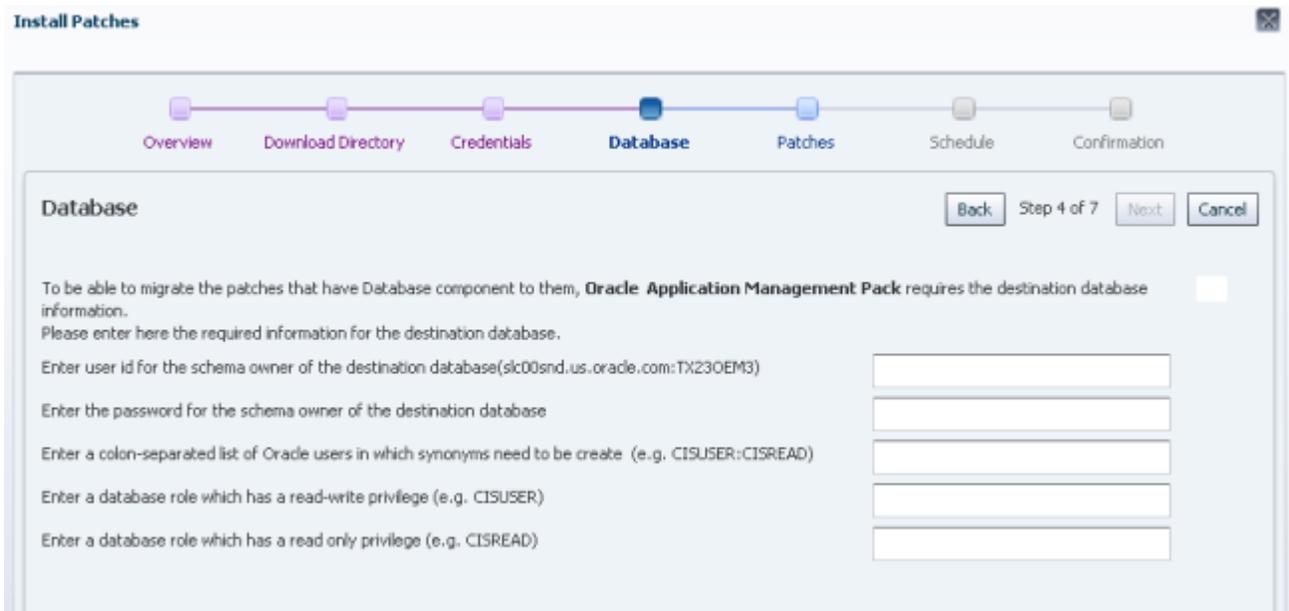
Figure 49: Install Patches: Database

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.

Install Patches   ⊠

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

Patches

Back   Step 5 of 7   Next   Cancel

Patch Number	Product	Release	Platform
13341098	FW	V4.1.0	multiplatform
13459712	FW	V4.1.0	multiplatform
13399762	FW	V4.1.0	multiplatform
13349103	FW	V4.1.0	multiplatform
11065801	FW	V4.1.0	multiplatform
13339778	FW	V4.1.0	multiplatform
12888985	FW	V4.1.0	multiplatform
13443937	FW	V4.1.0	multiplatform
13370292	FW	V4.1.0	multiplatform

Figure 50: Install Patches: Select Patches

7. 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.
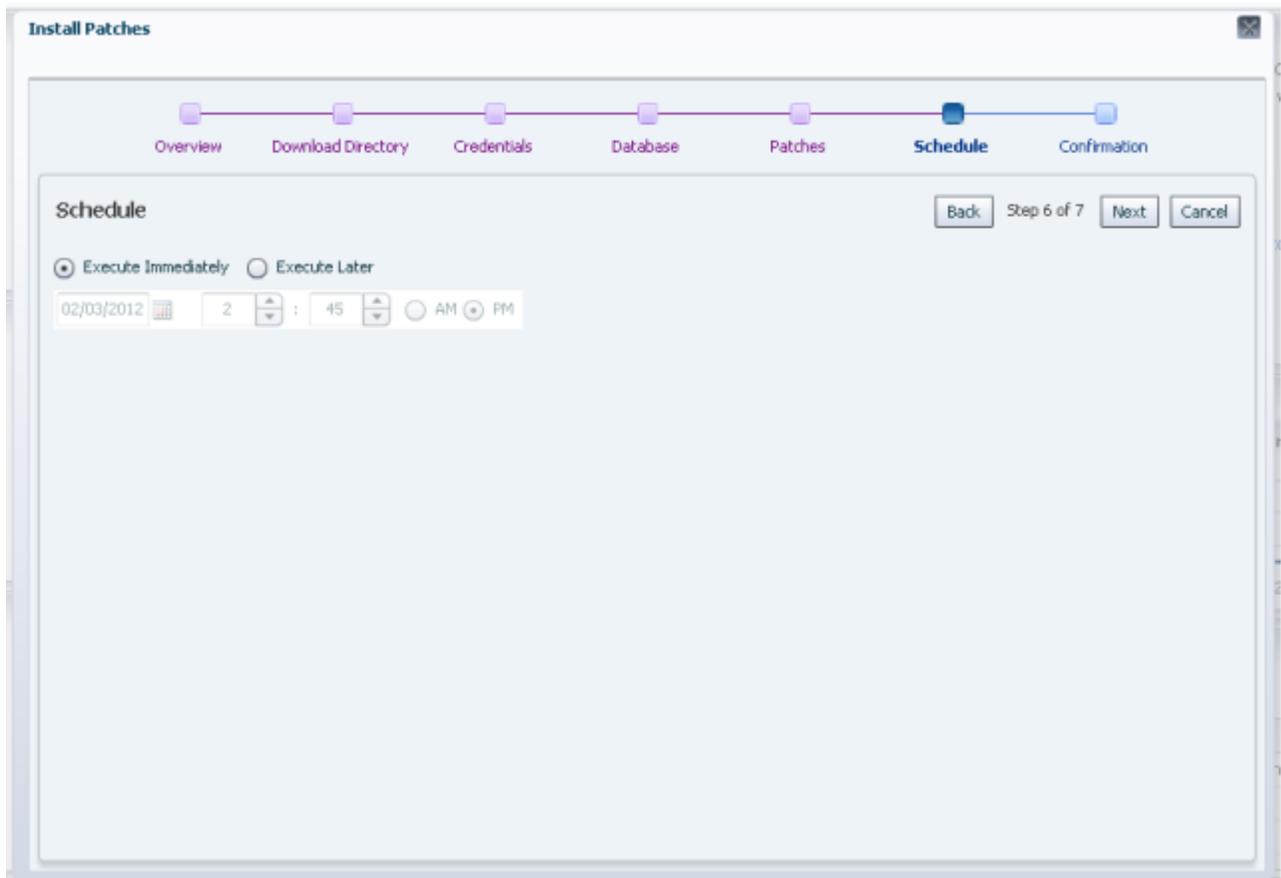
Figure 51: Install Patches: Schedule

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.
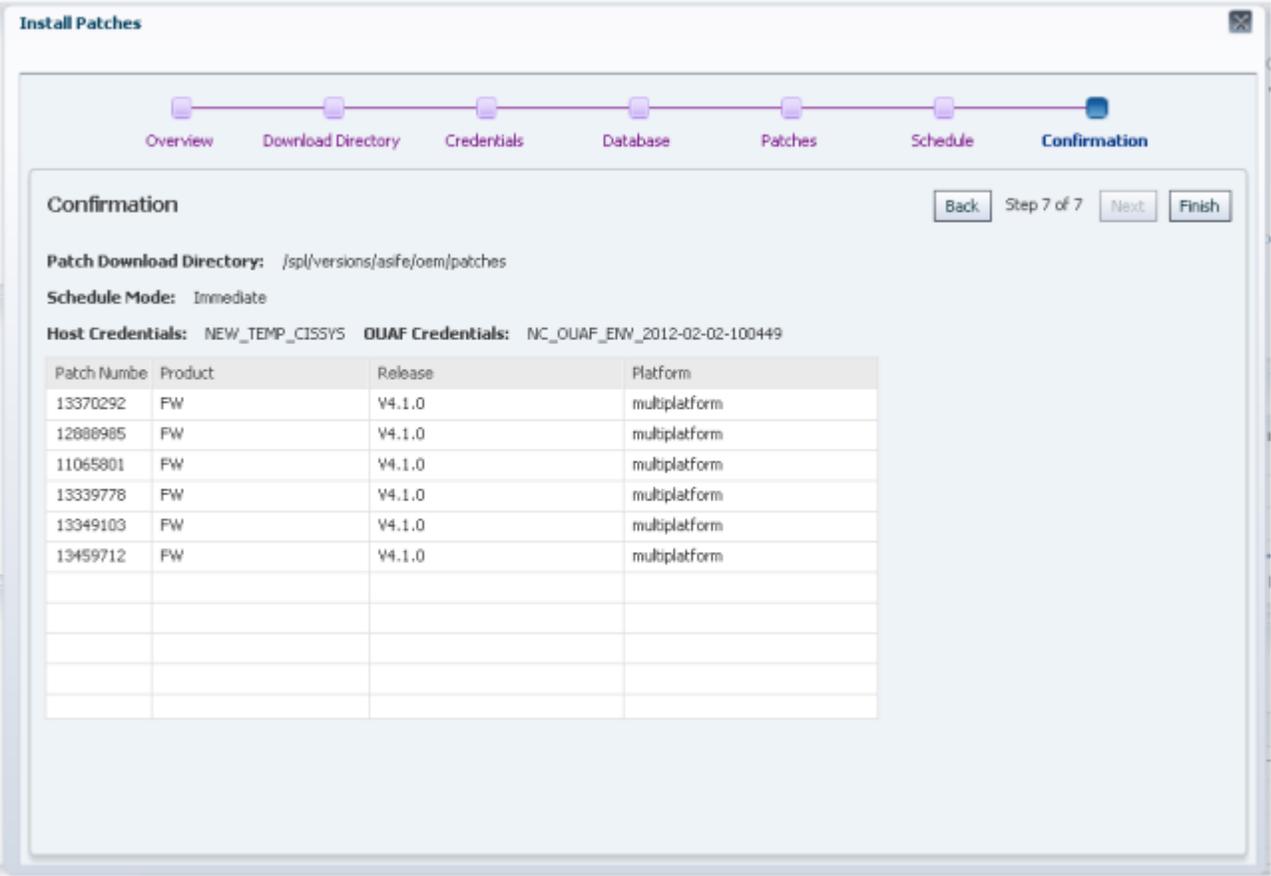
Figure 52: Install Patches: Confirmation

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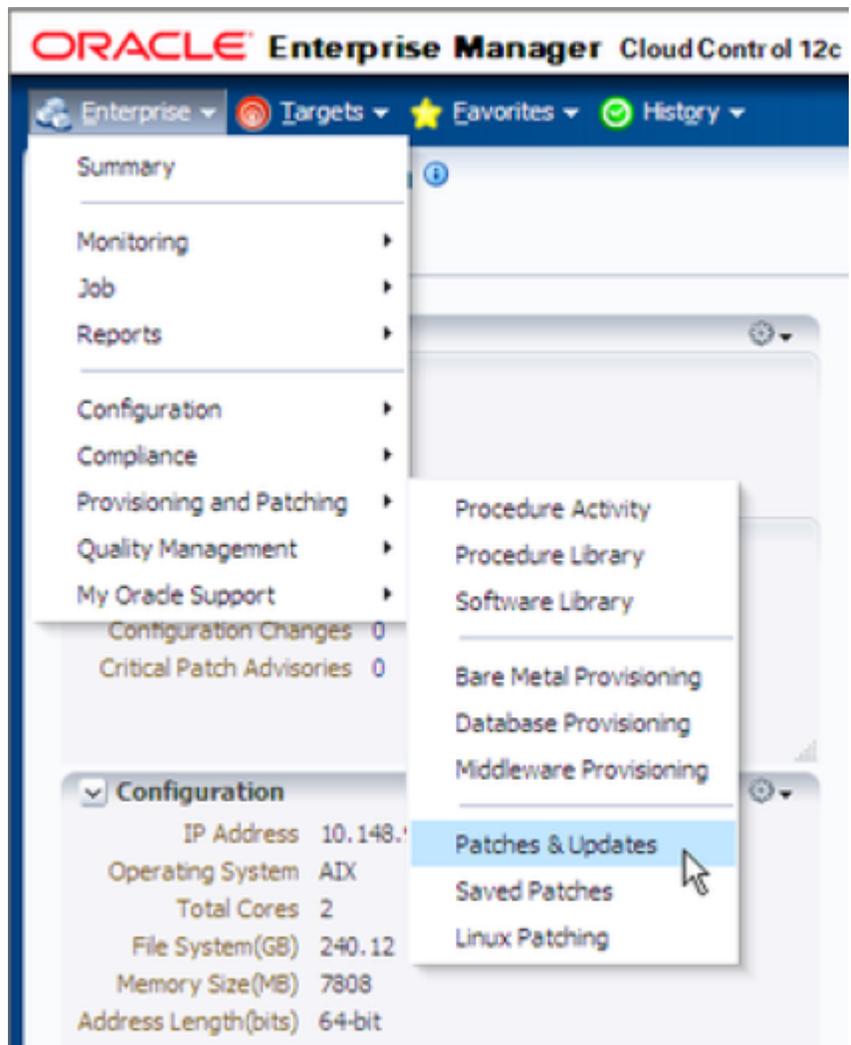
2. **Import** the downloaded patches: This process allows you to import downloaded patches which are subsequently unpackaged into a format that is compatible with the Application Management Pack's installation process.

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.
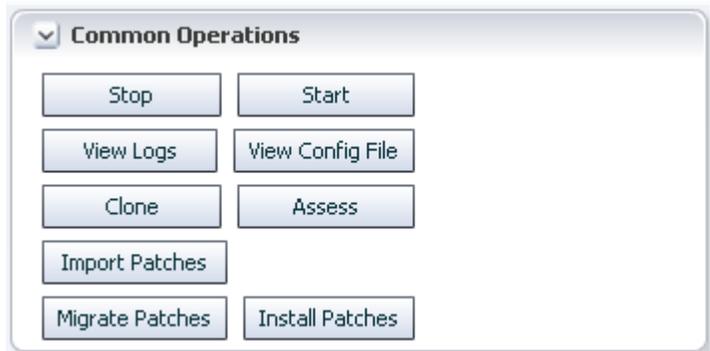
Figure 53: Target Home Page: Common Operations Region

2. The first page of the **Migrate Patches** walk-through appears. Click **Next.**.
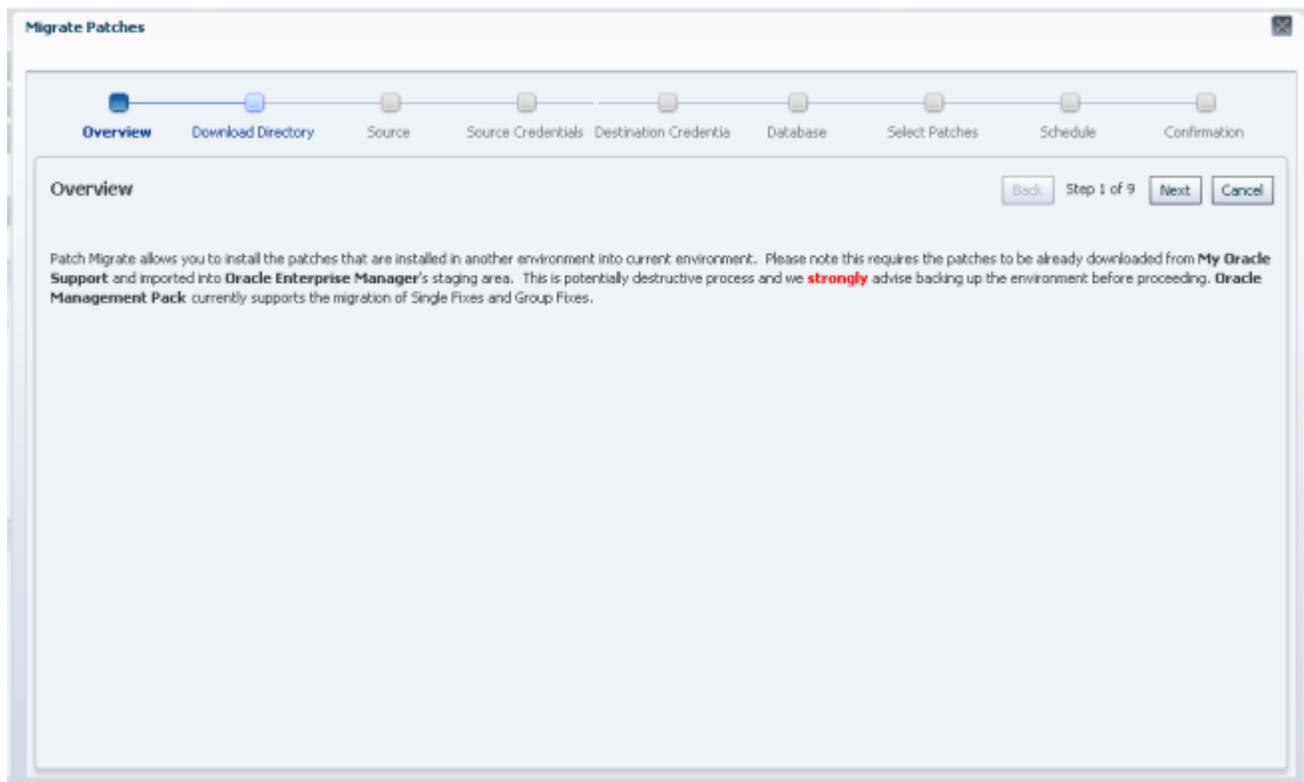
Figure 54: Migrate Patches: Overview

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.
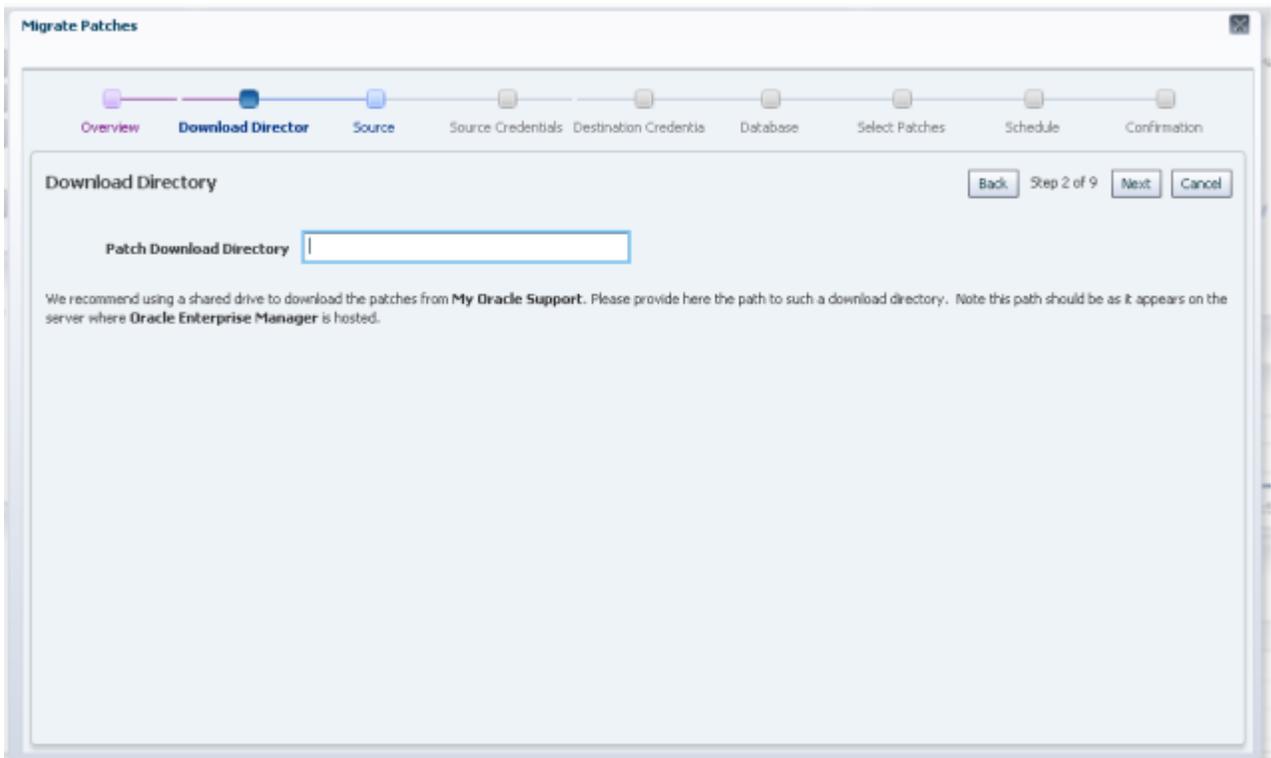
Figure 55: Migrate Patches: Download Directory

4. On the **Source** page, choose the source target environment from the dropdown list. Note that only targets with identical product/version combinations are in included in the list. After making your selection, click **Next** to proceed.
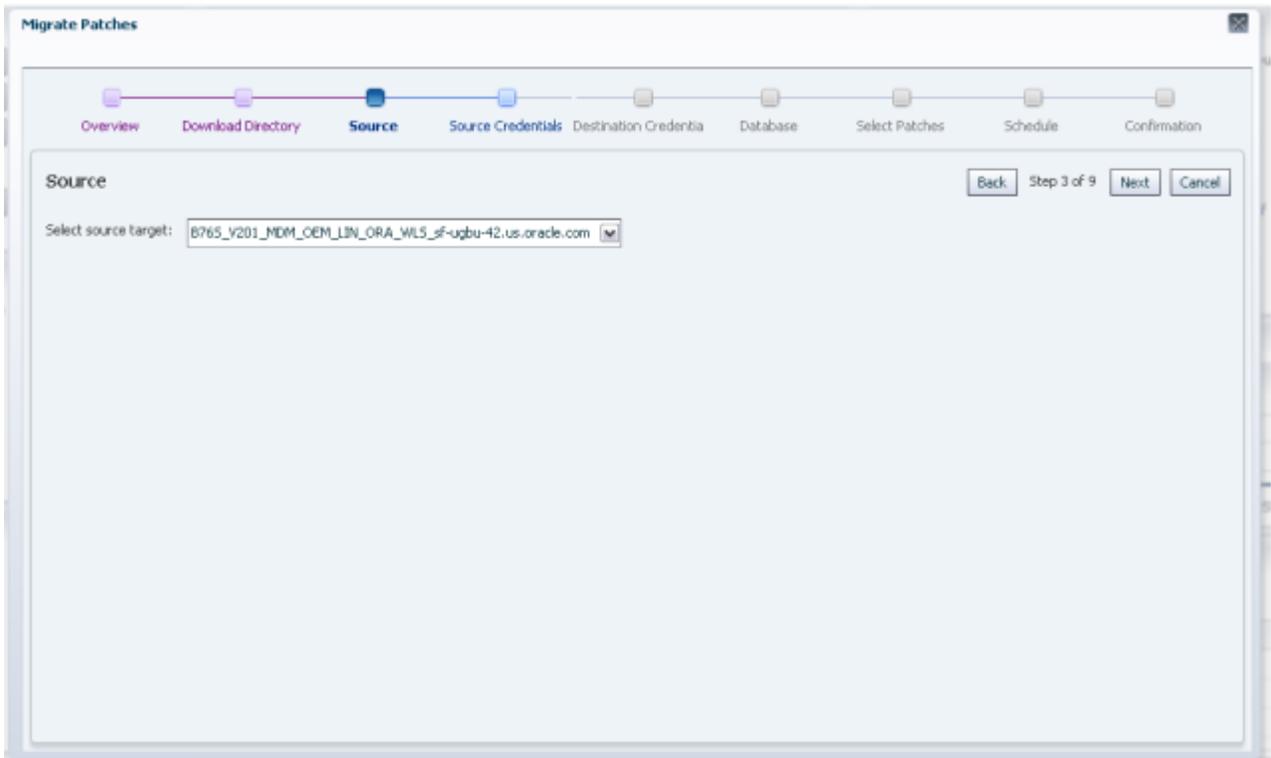
Figure 56: Migrate Patches: Source

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.
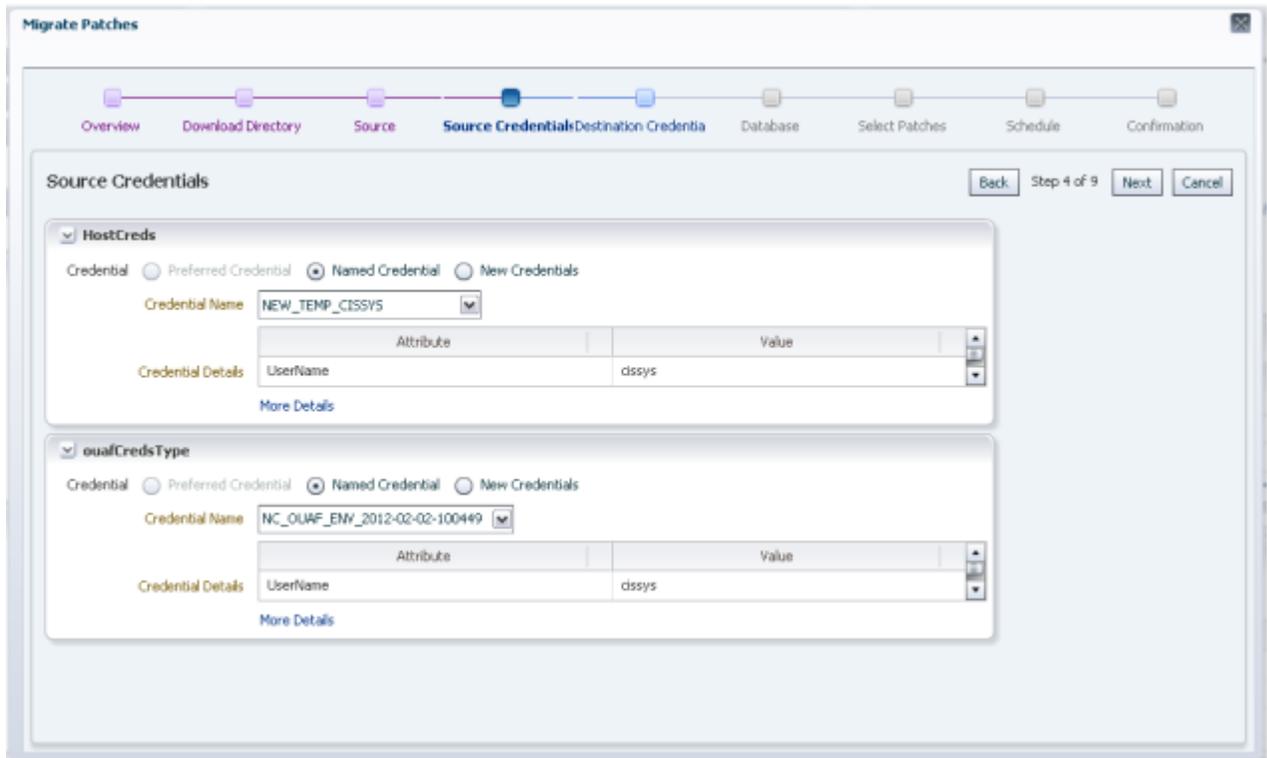
Figure 57: Migrate Patches: Source Credentials

6. 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.
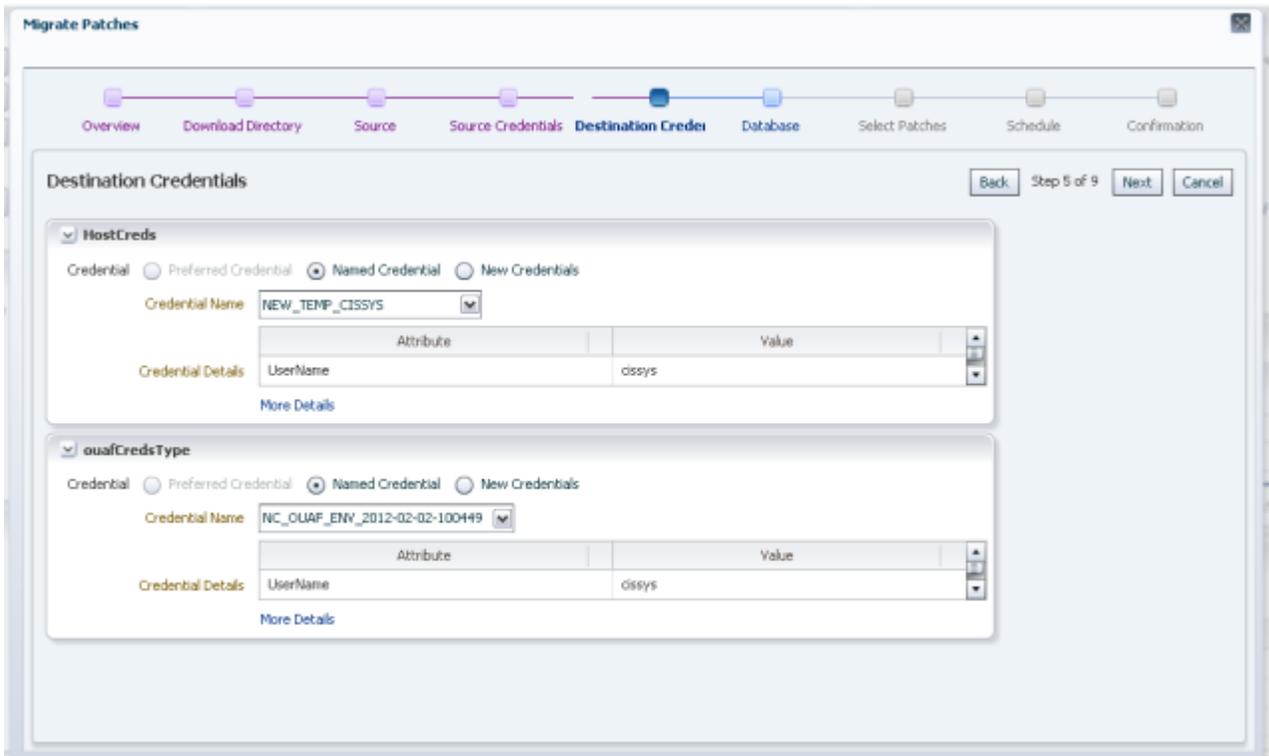
Figure 58: Migrate Patches: Destination Credentials

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.
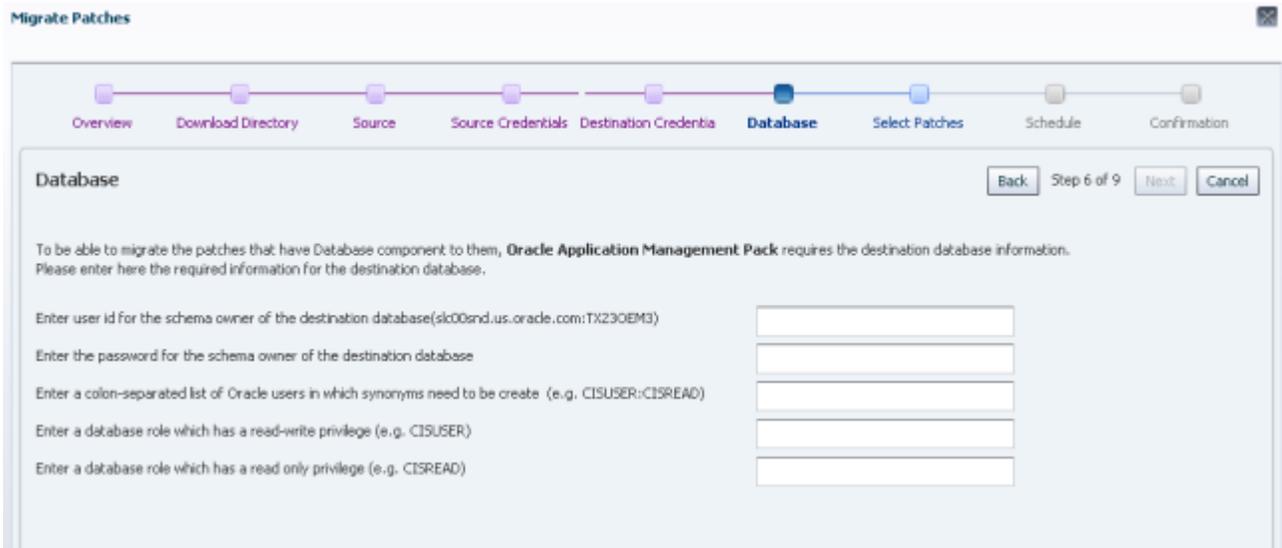
Figure 59: Migrate Patches: Database

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),

exist on the download directory, and have not yet been installed on the destination environment but are already installed in the source environment.

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 60: 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 61: 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 62: 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.
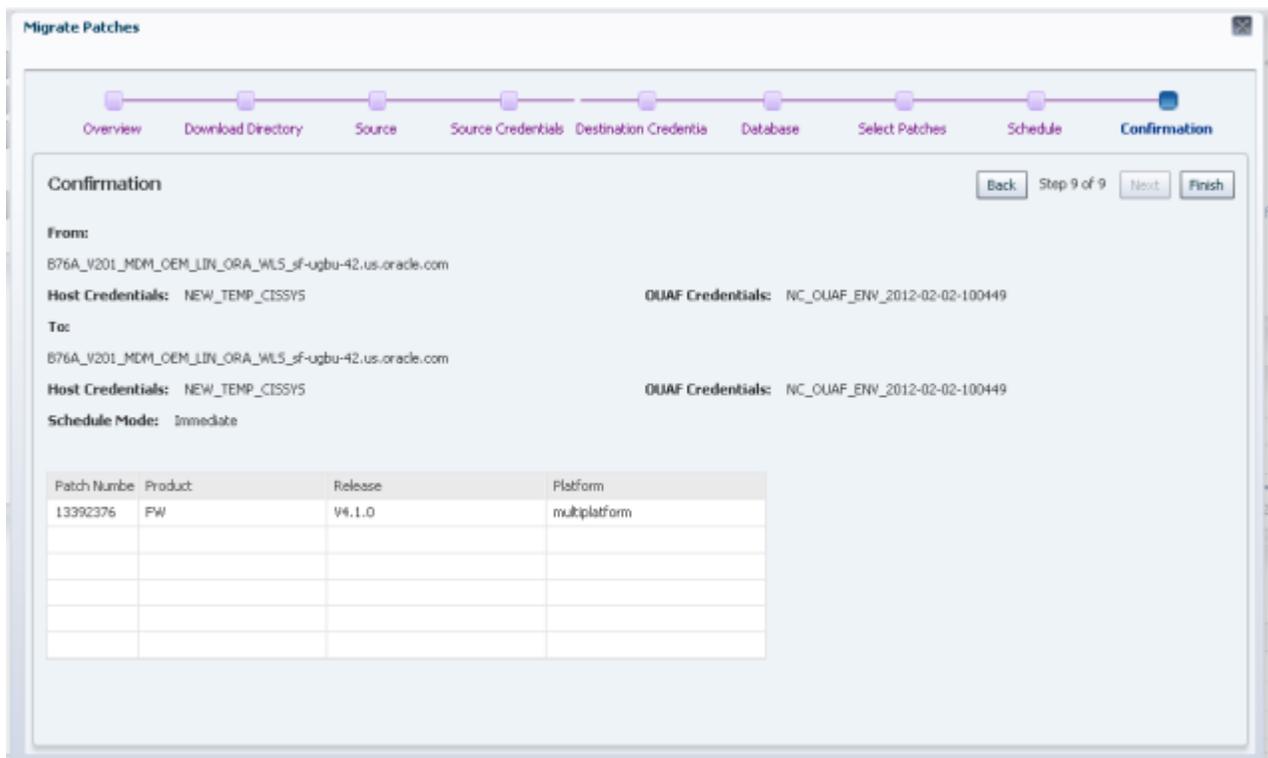
Figure 63: Migrate Patches: Confirmation

Viewing Target Metrics

Application Management Pack for Oracle Utilities 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...**.
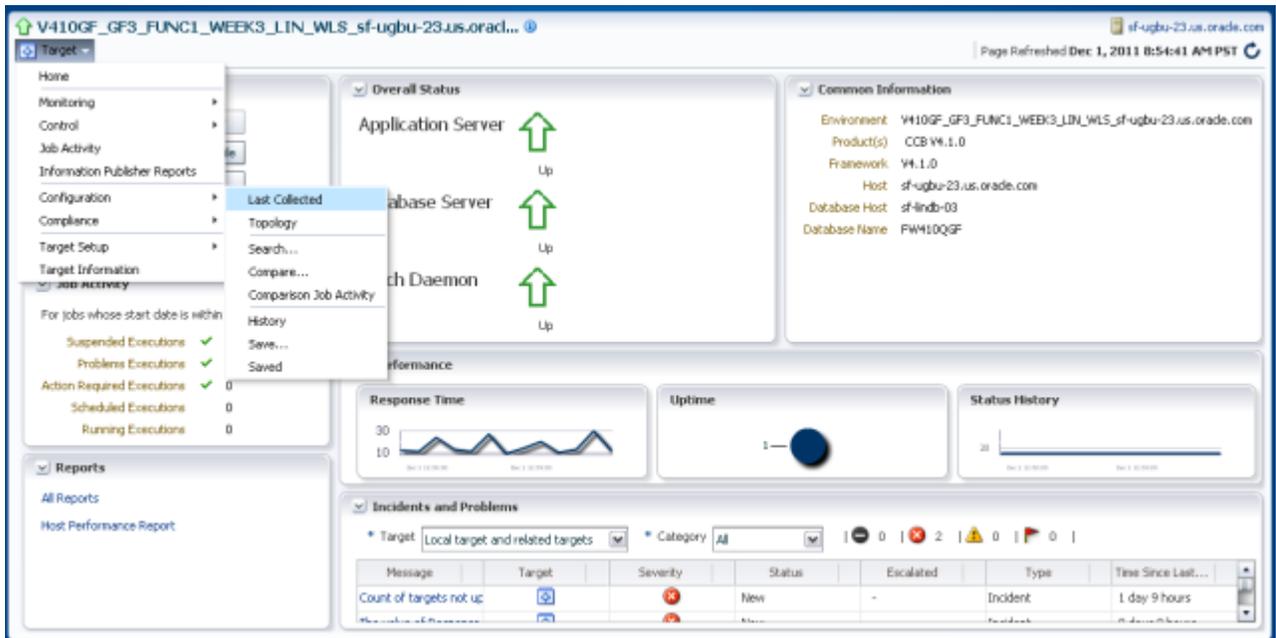
Figure 64: Selecting a target configuration

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.
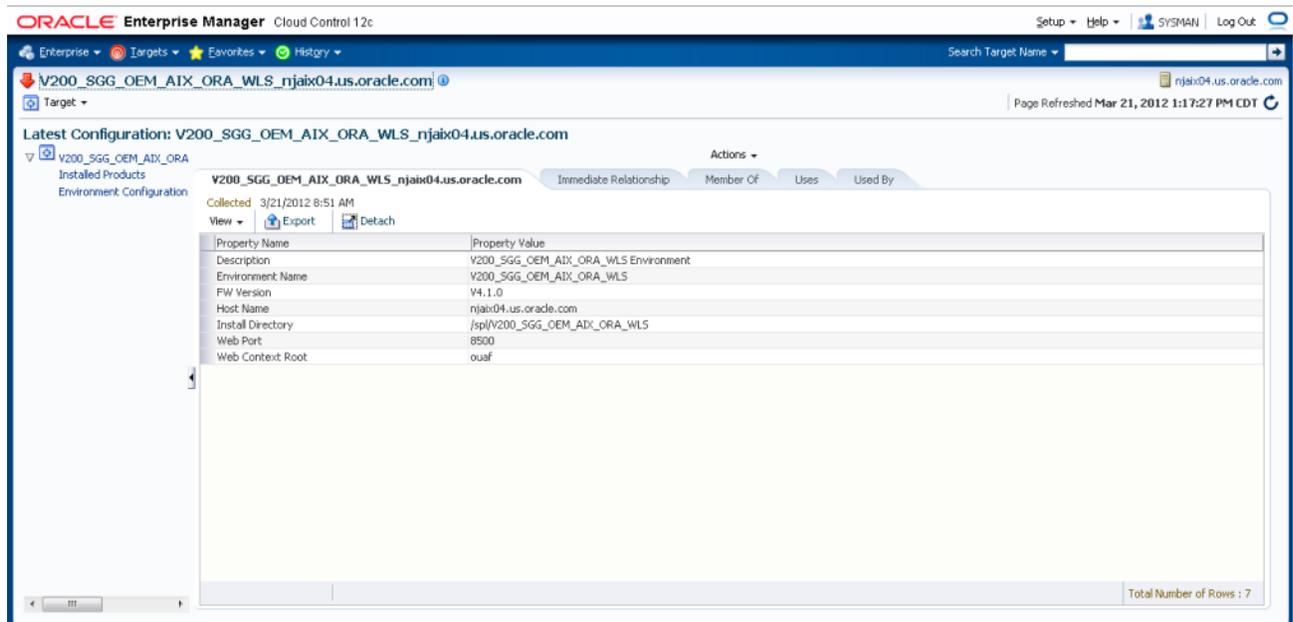
Figure 65: Latest Configuration page

The information is delivered as shown in the following diagrams:
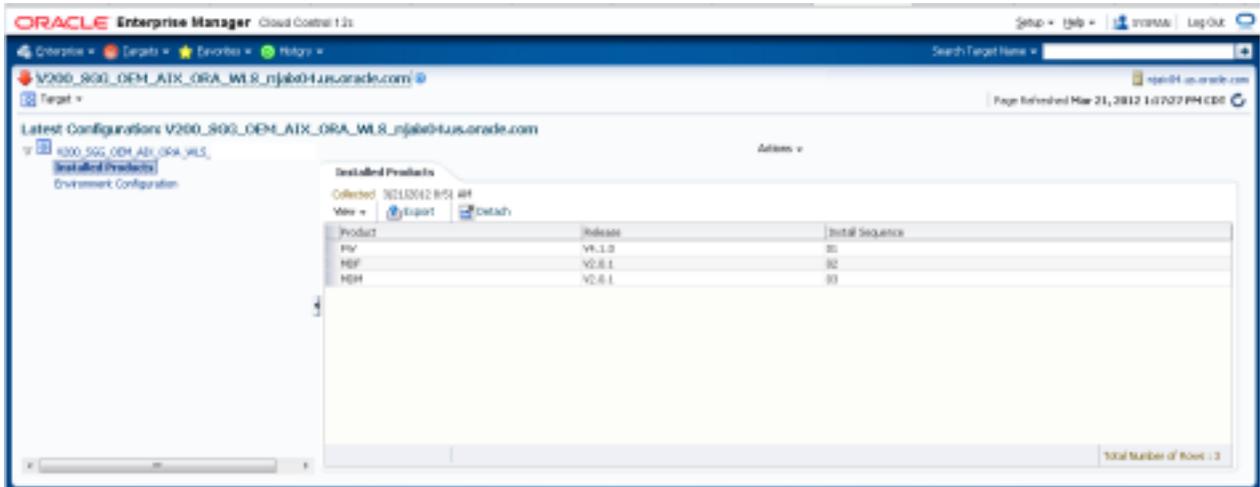
Figure 66: Installed Products page
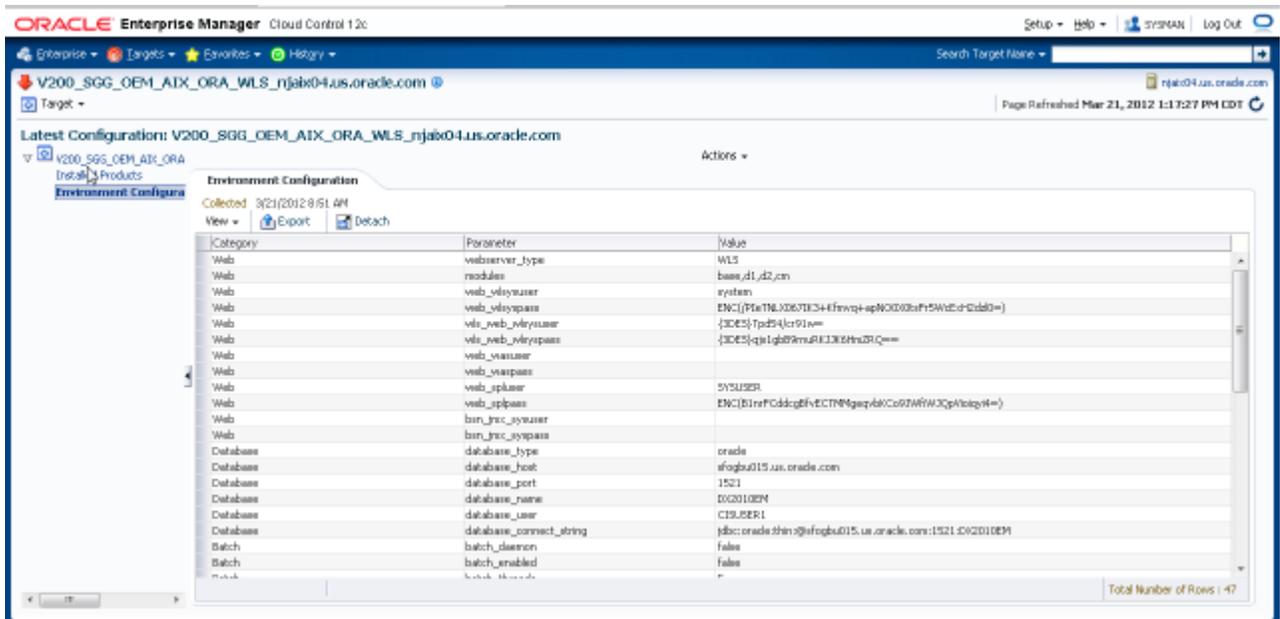
Figure 67: Environment Configuration page

Viewing Configuration Files

The View Configuration Files feature lets you review configuration details remotely without logging into the server or the environment. This information lets you compare environments and diagnose customer setup issues.

To view configuration files:

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

Figure 68: 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.
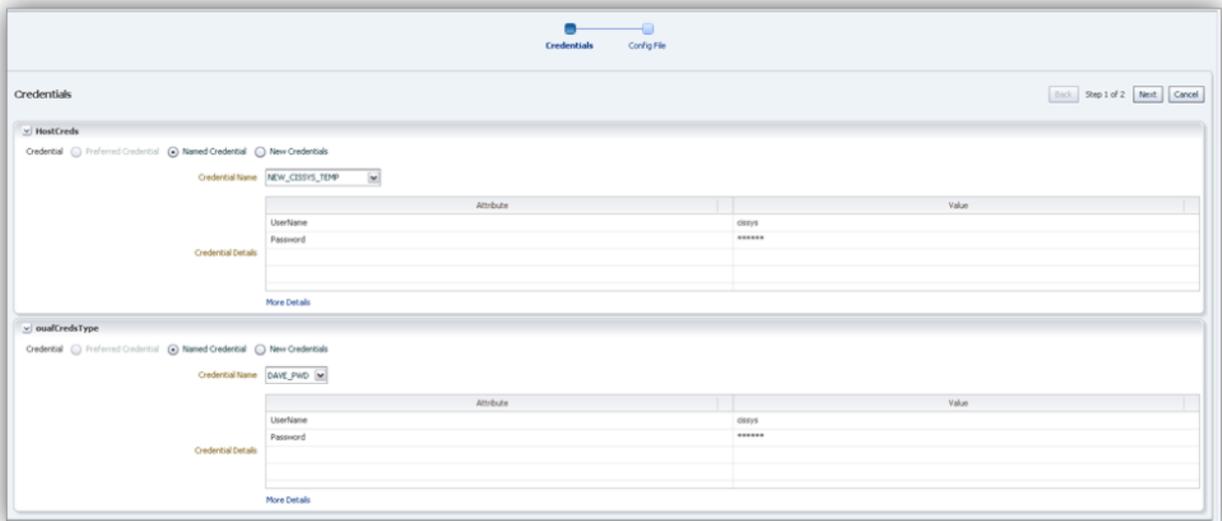
Figure 69: Viewing Configuration Files: Entering Credentials

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.
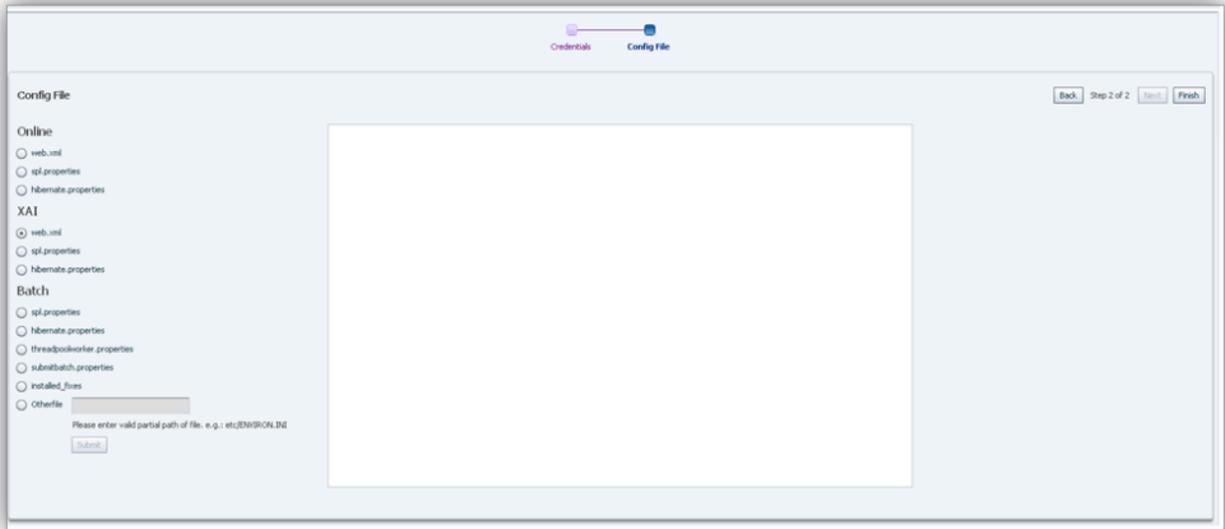
Figure 70: Viewing Configuration Files: File Viewer

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`.
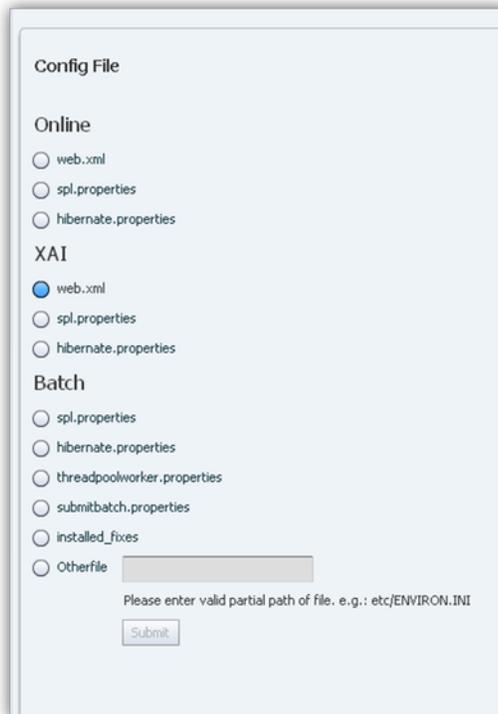
Figure 71: Viewing Configuration Files: Choose Configuration File

5. Click **Submit** to display the file in the scrollable text area.
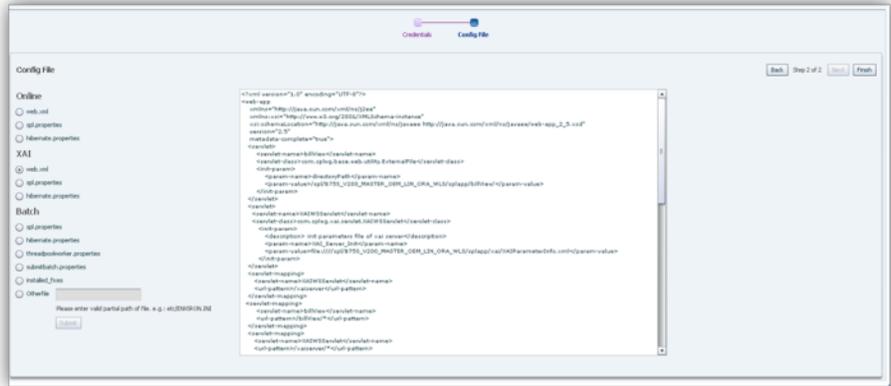
Figure 72: Viewing Configuration Files: View File

6. 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:

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

Figure 73: Target Home Page: Common Operations Region

2. On the **Credentials** page, choose a set of saved server credentials or enter your user name and password, then click **Next** to proceed.
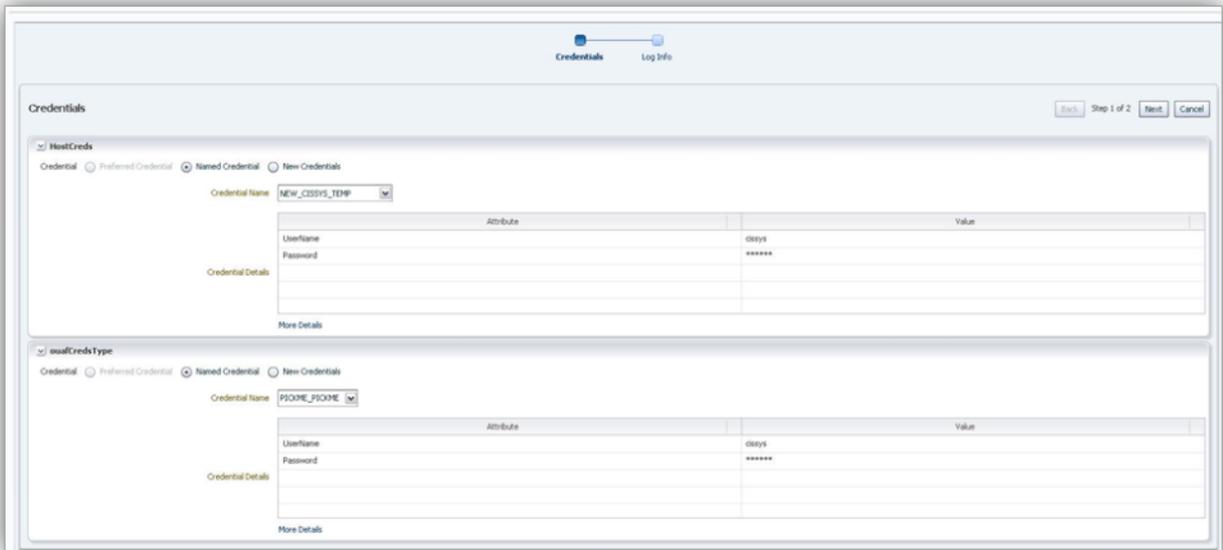
Figure 74: Viewing Logs: Entering Credentials

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.
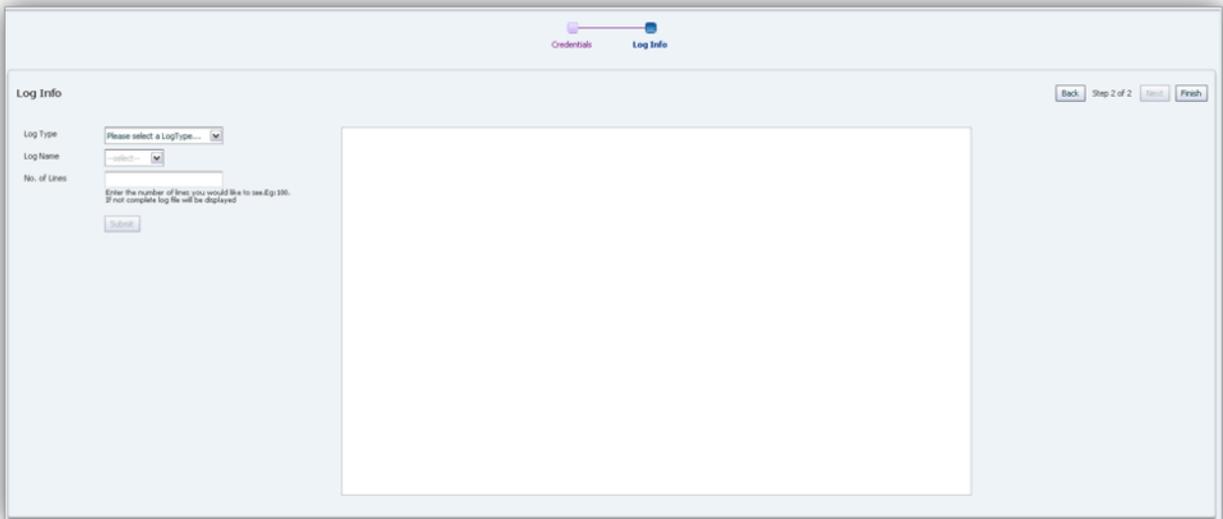
Figure 75: Viewing Logs: Log Info

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

Figure 76: Viewing Logs: Log Info: Choose Log Type

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

Figure 77: 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.

Figure 78: Viewing Logs: Log Info: Set Line Limit

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

Figure 79: Viewing Logs: Log Info: View File

8. 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 and metric configuration collection log information can be found in the agent perl trace file (`.../agent_inst/sysman/log/emagent_perl.trc`).

• Environment-specific log files can be found in `$SPLEBASE/logs/system`, and are named `ouaf_oem*.log`.

Documentation Accessibility

Our goal is to make Oracle products, services, and supporting documentation accessible to all users, including users that are disabled. To that end, our documentation includes features that make information available to users of assistive technology.

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at *http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc*.

Accessibility of Code Examples in Documentation

Screen readers may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, some screen readers may not always read a line of text that consists solely of a bracket or brace.

Accessibility of Links to External Web Sites in Documentation

This documentation may contain links to Web sites of other companies or organizations that Oracle does not own or control. Oracle neither evaluates nor makes any representations regarding the accessibility of these Web sites.

Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit *http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info* or visit *http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs* if you are hearing impaired.