# Oracle® Application Management Pack for Oracle E-Business Suite

User's Guide Release 3.1

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Oracle Application Management Pack for Oracle E-Business Suite User's Guide, Release 3.1

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# Oracle Application Management Pack for Oracle E-Business Suite User's Guide, Release 3.1 Part No. E14597-03

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# **Preface**

## **Intended Audience**

Welcome to Release 3.1 of the *Oracle Application Management Pack for Oracle E-Business Suite User's Guide.* 

This book is intended for database administrators and system administrators who are responsible for performing the tasks associated with maintaining an Oracle E-Business Suite system using the Oracle Application Management Pack for Oracle E-Business Suite.

See Related Information Sources on page x for more Oracle E-Business Suite product information.

## **Deaf/Hard of Hearing Access to Oracle Support Services**

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## **Structure**

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### **Related Information Sources**

#### Oracle Application Management Pack for Oracle E-Business Suite Installation Guide

This manual describes the system requirements and installation procedures for this product.

# Oracle Application Change Management Pack for Oracle E-Business Suite User's Guide

This guide describes how to use the features of Patch Manager, Customization Manager, and Setup Manager in the Oracle Application Change Management Pack for Oracle E-Business Suite.

#### Oracle E-Business Suite System Administrator's Guide Documentation Set

This documentation set provides planning and reference information for the Oracle E-Business Suite System Administrator. *Oracle E-Business Suite System Administrator's Guide - Configuration* contains information on system configuration steps, including

defining concurrent programs and managers, enabling Oracle Applications Manager features, and setting up printers and online help. *Oracle E-Business Suite System Administrator's Guide - Maintenance* provides information for frequent tasks such as monitoring your system with Oracle Applications Manager, managing concurrent managers and reports, using diagnostic utilities, managing profile options, and using alerts. *Oracle E-Business Suite System Administrator's Guide - Security* describes User Management, data security, function security, auditing, and security configurations.

#### **Oracle Enterprise Manager Concepts**

This manual introduces Oracle Enterprise Manager and describes the concepts required to use the product effectively to manage your Oracle environment.

#### Oracle Enterprise Manager Grid Control Quick Start Guide

This guide is for a super administrator to efficiently perform common day-to-day administrative tasks with Enterprise Manager. It also provides recommended best practices for configuring Grid Control to achieve these tasks.

#### Oracle Database 2 Day DBA

Oracle Database 2 Day DBA is a database administration quick start guide that teaches you how to perform day-to-day database administrative tasks. The goal of this book is to help you understand the concepts behind the Oracle Database. It teaches you how to perform all common administration tasks needed to keep the database operational, including how to perform basic troubleshooting and performance monitoring activities.

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

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

Oracle provides powerful tools you can use to create, store, change, retrieve, and maintain information in an Oracle database. But if you use Oracle tools such as SQL\*Plus to modify Oracle E-Business Suite data, you risk destroying the integrity of your data and you lose the ability to audit changes to your data.

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

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

# Introduction to the Oracle Application **Management Pack for Oracle E-Business** Suite

### Overview

The Oracle Application Management Pack for Oracle E-Business Suite extends Oracle Enterprise Manager 10g Grid Control to help monitor and manage Oracle E-Business Suite systems more effectively. The pack integrates Oracle Applications Manager with Grid Control to provide a consolidated, end-to-end Oracle E-Business Suite management solution. This pack is an upgrade release of the Oracle Application Management Pack for Oracle E-Business Suite Release 3.0, available as a patch to be applied on top of a Release 3.0 installation. The pack can be used to manage both Oracle E-Business Suite Release 11*i* systems and Release 12 systems.

This document describes the features and usage of this new pack for Grid Control.

The Oracle Application Management Pack for Oracle E-Business Suite provides extensions for the Enterprise Manager 10g Grid Control management service, repository, and agent. This pack introduces target types for Release 11i as well as Release 12.

This pack introduces target types that can be monitored within Grid Control.

The following table lists the target types in Release 12:

Target Type	Description
Oracle E-Business Suite	Oracle E-Business Suite composite target.

Target Type	Description
Oracle Applications Service	Aggregate service for monitoring Oracle Applications. This service contains the Oracle Applications Infrastructure Service. It can optionally also contain an Order Management service if out-of-box example services are enabled. Refer to Application Service Level Monitoring, page 8-1 for details of how to enable the example services.
Oracle Applications Infrastructure Service	Aggregate service for monitoring the Oracle Applications infrastructure. This service contains the following sub-services: Concurrent Processing Service, Forms Applications Service, Self-Service Applications Service, and Workflow Service.
Concurrent Processing Service	Service for monitoring concurrent processing. The key components for this service are: Database Instance, Applications Listener, and Oracle Concurrent Manager.
Forms Applications Service	Service for monitoring Oracle Forms-based applications. The key components for this service are: Database Instance, Forms, OC4J, and Oracle HTTP Server.
Self-Service Applications Service	Service for monitoring Self-Service applications. The key components for this service are: Database Instance, OC4J, and Oracle HTTP Server.
Workflow Service	Service for monitoring Oracle Workflow. The key components for this service are: Database Instance, Applications Listener, Oracle Concurrent Manager, Oracle Workflow Agent Listener, Oracle Workflow Background Engine, and Oracle Workflow Notification Mailer.

Target Type	Description
Order Management Service	Optional. An example aggregate service for monitoring the Order Management application. It contains the following sub-services: Order Information Portal Service, Order Entry Service, Ship Confirm Service. Refer to Application Service Level Monitoring, page 8-1 for details of how to enable the example services.
Order Management – Order Information Portal Service	Optional. An example service for monitoring the Order Management – Order Information Portal using an example service test. Refer to Application Service Level Monitoring, page 8-1 for details of how to enable the example services.
Order Management – Order Entry Service	Optional. An example service for monitoring Order Entry. Refer to Application Service Level Monitoring, page 8-1 on details of how to enable the example services.
Order Management – Ship Confirm Service	Optional. An example service for monitoring Order Entry. Refer to Application Service Level Monitoring, page 8-1 on details of how to enable the example services.
Oracle E-Business Suite System	A system target that contains all the components for the Oracle E-Business Suite system.
Oracle E-Business Suite Node System	A system target that contains all the Oracle E-Business Suite Infrastructure targets for a given Oracle E-Business Suite system.
Oracle E-Business Suite Infrastructure	Composite target for monitoring an Oracle E-Business Suite node. It contains targets for components that always run from that particular node.
Oracle Concurrent Manager	Target for monitoring concurrent managers.
Internal Concurrent Manager	Target for monitoring the Internal Concurrent Manager.

Target Type	Description
Oracle E-Business Suite Workflow	Composite target for monitoring Oracle Workflow. It contains the Oracle Workflow Agent Listener, Oracle Workflow Background Engine, and Oracle Workflow Notification Mailer targets.
Oracle Workflow Agent Listener	Target for monitoring the Oracle Workflow Agent listeners.
Oracle Workflow Background Engine	Target for monitoring the Oracle Workflow Background Engine.
Oracle Workflow Notification Mailer	Target for monitoring the Oracle Workflow Notification Mailer.
Oracle Applications JVM Usage	Target for monitoring Oracle Applications JVMs.
Oracle E-Business Suite Custom Objects	Target for monitoring the custom objects configuration.
Oracle E-Business Suite Patch Information	Target for monitoring the patch information configuration.

For Release 11*i* systems (with the interoperability patch applied), refer to the following table for target types:

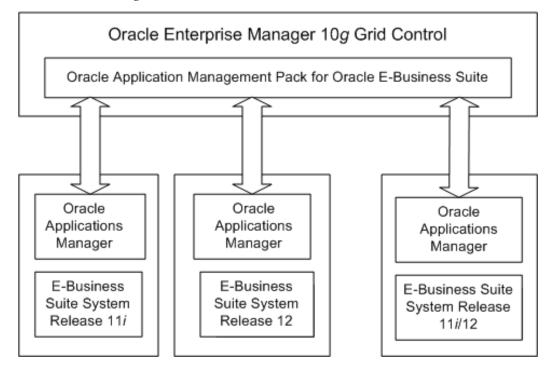
Target Type	Description
Oracle E-Business Suite	Oracle E-Business Suite composite target.
Oracle Applications Service	Aggregate service for monitoring Oracle Applications. It contains the Oracle Applications Infrastructure Service.
Oracle Applications Infrastructure Service	Aggregate service for monitoring the Oracle Applications infrastructure. This service contains the following sub-services: Concurrent Processing Service, Forms Applications Service, Self-Service Applications Service, and Workflow Service.

Concurrent Processing Service	Service for monitoring concurrent processing. The key components for this service are: Database Instance, Applications Listener, and Oracle Concurrent Manager.
Forms Applications Service	Service for monitoring Oracle Forms-based applications. The key components for this service are: Database Instance, Forms Listener for Oracle E-Business Suite 11 <i>i</i> , and HTTP Server for Oracle E-Business Suite 11 <i>i</i> .
Self Service Applications Service	Service for monitoring Self Service applications. The key components for this service are: Database Instance, HTTP Server for Oracle E-Business Suite 11 <i>i</i> , and JServ for Oracle E-Business Suite 11 <i>i</i> .
Workflow Service	Service for monitoring Oracle Workflow. The key components for this service are: Database Instance, Applications Listener, Oracle Concurrent Manager, Oracle Workflow Agent Listener, Oracle Workflow Background Engine, and Oracle Workflow Notification Mailer.
Oracle E-Business Suite System	A system target that contains all the components for the Oracle E-Business Suite system.
Oracle E-Business Suite Node System	A system target that contains all the Oracle E-Business Suite infrastructure targets for a given Oracle E-Business Suite system.
Oracle E-Business Suite Infrastructure	Composite target for monitoring an Oracle E-Business Suite node. It contains targets for components that run from that particular node.
Oracle Concurrent Manager	Target for monitoring concurrent managers.
Internal Concurrent Manager	Target for monitoring the Internal Concurrent Manager.

Oracle E-Business Suite Workflow	Composite target for monitoring Oracle Workflow. This target contains: Oracle Workflow Agent Listener, Oracle Workflow Background Engine, and Oracle Workflow Notification Mailer targets.
Oracle Workflow Agent Listener	Target for monitoring Oracle Workflow Agent listeners.
Oracle Workflow Background Engine	Target for monitoring Oracle Workflow Background Engine.
Oracle Workflow Notification Mailer	Target for monitoring Oracle Workflow Notification Mailer.
HTTP Server for Oracle E-Business Suite $11i$	Target for monitoring HTTP Server for Oracle E-Business Suite 11 <i>i</i> .
JServ for Oracle E-Business Suite 11 <i>i</i>	Target for monitoring JServ for Oracle E-Business Suite 11 <i>i</i> .
Forms Listener for Oracle E-Business Suite $11i$	Target for monitoring the Forms Listener for Oracle E-Business Suite 11 <i>i</i> . Applicable if Forms is configured in socket mode.
Forms Servlet for Oracle E-Business Suite $11i$	Target for monitoring Forms Servlet for 11 <i>i</i> . Applicable if forms is configured in servlet mode.
Reports Server for Oracle E-Business Suite $11i$	Target for monitoring Reports Server for Oracle E-Business Suite 11 <i>i</i> .
Discoverer for Oracle E-Business Suite $11i$	Target for monitoring Discoverer for Oracle E-Business Suite 11 <i>i</i> .
Oracle E-Business Suite Custom Objects	Target for monitoring custom objects configuration.
Oracle E-Business Suite Patch Information	Target for monitoring patch information configuration.

Grid Control provides a complete view of your enterprise so that you can manage all of your Oracle E-Business Suite systems from a single console. This pack provides new pages within Grid Control that help you to monitor the performance, availability and configuration changes of your Oracle E-Business Suite system and also help you to

provision your Oracle E-Business Suite applications. You can take advantage of advanced Grid Control features such as the provisioning framework and Application Service Level Management.



Grid Control itself allows you to monitor multiple Oracle E-Business systems (both Release 11*i* and Release 12) from the outside.

The Oracle Application Management Pack for Oracle E-Business Suite provides advanced features to monitor and manage Oracle E-Business Suite Release 12 systems as well as Release 11i systems that meet a standard interoperability patch level. These advanced features include Oracle E-Business Suite provisioning, Application Service Level Management, extended performance metrics, and links from Grid Control to Oracle Applications Manager.

**Note:** Please refer to My Oracle Support Knowledge Document 982302.1 for additional patches required for your system.

# **Discovering Oracle E-Business Suite** Systems with Grid Control and Additional Setup

## Discovering Oracle E-Business Suite Systems with Grid Control

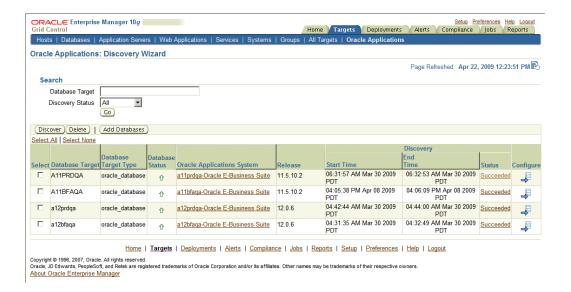
Before you can manage an Oracle E-Business Suite system in Grid Control, you must discover (register) that system and its components with the agents. The Oracle Application Management Pack for Oracle E-Business Suite allows you to discover and register systems that have been deployed using a standard configuration. The process of registering an Oracle E-Business Suite system with Grid Control has been automated.

Only users with the OPERATOR or above privilege can submit an administration job, including a discovery job, on the Oracle E-Business Suite.

**Note:** The management pack does not support discovery of multiple Oracle E-Business Suite instances with the same name on different hosts on a given Oracle Management Server. Each Oracle E-Business Suite instance should have a unique Oracle System Identifier (SID).

## **Discovery Wizard**

Discovery Wizard is a dashboard to track, plan, log and customize Oracle E-Business Suite discovery jobs.



#### The Discovery Wizard can be accessed by:

 Click on the Discovery Wizard link under "Related Links" from the System Management Dashboard or Change Management Dashboard.



 From the System Management dashboard, click the Add button to add a new Applications System and click Custom Discovery.



## Discovering an Oracle E-Business Suite System

Before beginning the registration process of the Oracle E-Business Suite system, you must make sure the following steps have been performed:

- An agent has been installed on the Oracle E-Business Suite system, on both the database tier and the application system tier.
- The Oracle E-Business Suite database host system has been discovered by Grid Control. In case of a RAC System, Agent must be installed on all the nodes in the cluster
- The Oracle E-Business Suite system database has been discovered by Grid Control.

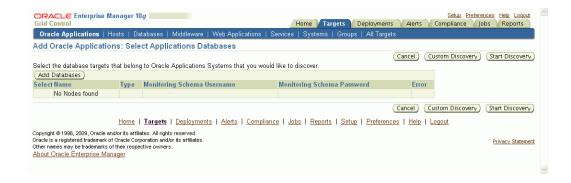
**Note:** For an AutoConfig-enabled Release 11*i* instance, running AutoConfig on the database tier adds the following lines to sqlnet.ora automatically:

```
tcp.validnode checking = yes
tcp.invited nodes=(11i HOST)
```

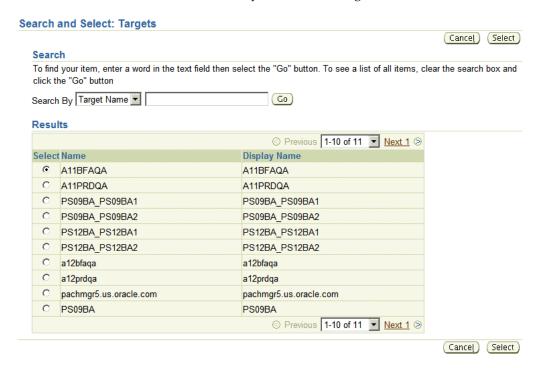
In this case, database discovery or application discovery via Oracle Enterprise Manager will fail because the Oracle E-Business Suite instance database tier listener will reject any connection requests other than from itself. To prevent this failure, add the Oracle Enterprise Manager Grid Control server to sqlnet\_ifile.ora as listed below and bounce the database listener before discovery via Oracle Enterprise Manager.

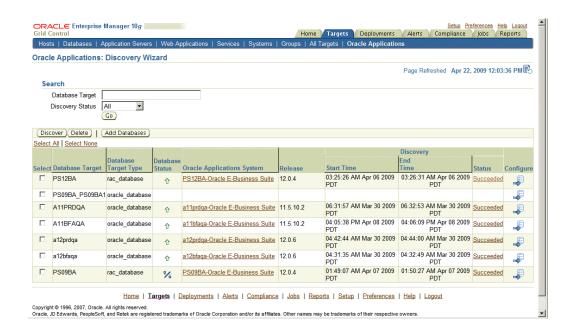
```
tcp.invited nodes=(11i HOST, EMGC HOST)
```

From the Discovery Wizard, you can add a database to the system using the Add Databases button.



Use the Add Databases button to select your database target.





Once added, the database target appears in the table. Select the Application Database Targets you want to discover and click the **Start Discovery** button.



You can also start the registration process from the Oracle Applications subtab by clicking the Add button on the System Management dashboard.



You can then use the **Add Database** button to add an additional Oracle E-Business Suite database target to be discovered. In the case of an Oracle E-Business Suite instance deployed on a Real Application Clusters (RAC) database, select the Cluster Database Target for Discovery.

After choosing the relevant databases, enter the schema details and the application access details of the monitoring systems.



**Note:** If you had selected two or more database targets in the main Discovery Wizard page, you must enter credentials for all of them on this page, even if you do not select them all here.

For Monitoring Schema and Monitoring Schema Password, enter the schema username and password for the Oracle E-Business Suite database that can be used by the management pack for monitoring.

If you have applied the interoperability patches for Release 11*i* and/or Release 12, you can use the out-of-box em\_monitor user with access to limited database objects required

by the management pack. You can enable the em\_monitor user as follows:

Apply the required patches to your Oracle E-Business Suite system.

**Note:** Please see My Oracle Support Knowledge Document 982302.1 for information on required patches.

- Connect to the database through sqlplus as the SYSTEM user and issue command: alter user em monitor account unlock;
- Connect to the database through sqlplus as the em\_monitor user and change the password:

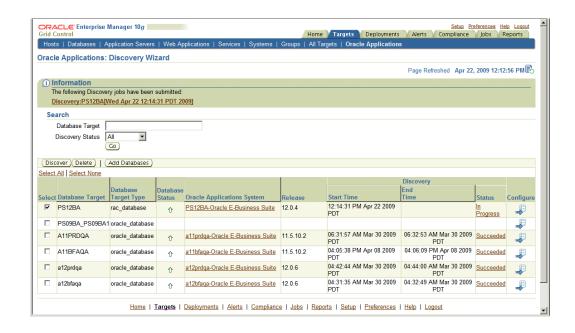
```
sqlplus em monitor/lizard;
```

You can also use the APPS schema username and password as your monitoring schema credentials.

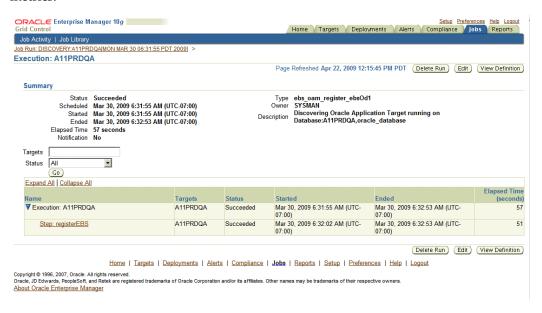
Additionally, if you wish to enable out-of-box example services you will also need to provide a Monitoring Applications Username and Password. Please refer to Chapter 6 on the steps required for creating a Monitoring Applications user. After following these steps enter the credentials of the Applications user into these fields. Click the Start **Discovery** button.

### The Discovery Job

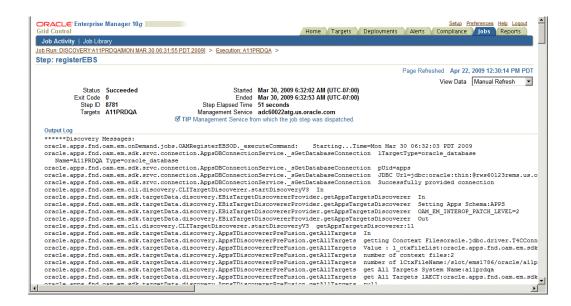
After the system starts a job to discover the Oracle E-Business Suite you can check its status on the main Discovery Wizard page.



You can view details on the job on the Discovery Wizard main page by clicking the status link. After gathering the inputs from the user (to register Oracle Application Instance with Grid Control), the discovery job connects to the Oracle E-Business Suite database and retrieves the configuration information. Grid Control then registers the various target types for the Oracle E-Business Suite system and starts capturing the metrics.



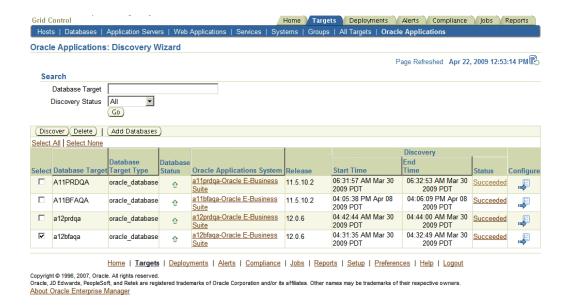
To learn more about a particular step in the discovery job's execution, click on the linked name of the step.



You also need to discover the database listener manually on the Oracle Enterprise Manager Grid Control console by clicking on Add Listener from the Enterprise Manager Grid Control Agent home page. For more information, see the Oracle Enterprise Manager online help.

## **Custom Discovery**

Discovery Wizard allows you to customize the Oracle Applications registration process by enabling you to override many discovery options. To configure the discovery parameters for an Oracle E-Business Suite system, click on the icon in the Configure column of the database target for the Oracle E-Business Suite to configure the parameters.



On the next page, enter application access details of the monitoring system. For Monitoring Schema Username and Monitoring Schema Password, enter the schema username and password for the Oracle E-Business Suite database that can be used by the management pack for monitoring. Click Continue.



The system then retrieves context files of the Oracle E-Business Suite system.



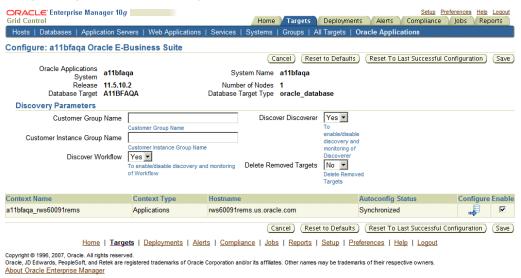
The Configure page allows you to update instance-level discovery parameters, as well as context-level parameters at the bottom of the page. To set context-level parameters,

use the icon in the Configure column for the specified context.

#### Configure Page for a Release 12 System



#### Configure Page for a Release 11i System



#### Context-level Information

Context Name	Context Type	Hostname	Autoconfig Status	Configure	Enable
a12prdqa_rws60127rems	Database	rws60127rems.us.oracle.com	Synchronized	114	✓
a12prdqa_rws60127rems	Applications	rws60127rems.us.oracle.com	Synchronized	114	✓

## **Instance-level Parameters**

The following parameters of discovery can be customized.

### **Instance-level Parameters for Release 12**

Parameter Name	Description	Default Value
Customer Instance Group Name	All targets discovered for this instance will be grouped under this group. This group will be added to Group: Customer Group Name.	No value.
Customer Group Name	If Customer Instance Group Name is provided all the targets discovered for this instance and the Customer Instance Group Name will be added to this group.	No value.
Discover Workflow	Disable/Enable Monitoring of the Oracle Workflow component.	Yes
Discover Workflow Service	Disable/Enable creation of the Oracle Workflow service.	Yes
Discover Forms Service	Disable/Enable creation of the Oracle Forms service.	Yes

Parameter Name	Description	Default Value
Discover SSA Service	Disable/Enable creation of the Self-Service Applications (SSA) Service.	Yes
Discover Patching Information Object	Disable/Enable Discovery of the Patching Information Object. This target is essential for any Oracle E-Business Suite patching application and should be enabled if any patching applications are used with this Instance.	Yes
Discover Custom Objects	Disable/Enable Discovery of customs objects configuration.	Yes
Discover Order Management Services	Disable/Enable Monitoring of Order Management services (out-of-box services).	Yes
Delete Removed Targets	All targets which are dissociated from the Applications System will be deleted from the EM Repository if is this option is set to 'Yes'.	No

#### **Discovery Parameters** Customer Group Name Discover Patching Information Object Customer Group Name Customer Instance Group Name discovery and ustomer Instance Group Name monitoring of Discover Workflow Yes Patching Information To enable/disable discovery and monitoring Object of Workflow Discover Custom Objects Yes 🔻 Yes 🔻 Discover Workflow Service To enable/disable discovery and monitoring enable/disable of Workflow Service discovery and Discover Forms Service Yes ▼ monitoring of To enable/disable discovery and monitoring Custom Objects Discover SSA Service Yes ▼ Yes 💌 Discover Order Management Services To enable/disable discovery and monitoring of SSA Service enable/disable discovery and monitoring of Order Management Services No 🔻 Delete Removed Targets Delete Removed Targets

#### Instance-level Parameters for Release 11i

#### **Discovery Parameters** Customer Group Name Discover Discoverer Yes 🔻 Customer Group Name enable/disable Customer Instance Group Name discovery and monitoring of stomer Instance Group Name Yes 🕶 Discoverer Discover Workflow No 🔻 Delete Removed Targets To enable/disable discovery and monitoring of Workflow Delete Removed Targets

Parameter Name	Description	Default Value
Customer Instance Group Name	All targets discovered for this instance will be grouped under this group. This group will be added to Group: Customer Group Name.	No value
Customer Group Name	If Customer Instance Group Name is provided all the targets discovered for this instance and the Customer Instance Group Name will be added to this group.	No value

Parameter Name	Description	Default Value
Discover Workflow	Disable/Enable monitoring of the Oracle Workflow component.	Yes
Discover Discoverer	Disable/Enable monitoring of the Discoverer component.	Yes
Delete Removed Targets	All targets which are dissociated from the applications system will be deleted from EM Repository if is this option is set to 'Yes'.	No

#### **Discovered Contexts**

Context Name	Context Type	Hostname	Autoconfig Status	Configure	Enable
a12prdqa_rws60127rems	Database	rws60127rems.us.oracle.com	Synchronized	na	✓
a12prdqa_rws60127rems	Applications	rws60127rems.us.oracle.com	Synchronized	114	V

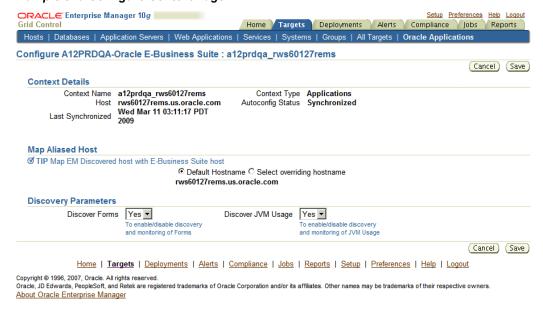
All contexts (nodes) that belong to the Oracle E-Business Suite are shown in this table. You can click the Configure icon for each individual context to set context-level parameters.

Once you have entered parameter values, you can do the following:

- Save This option saves your changes to the EM Repository.
- Reset to Last Successful Configuration This option resets the values to those that were used during the last successful discovery.
- Reset to Defaults This option sets the parameters to the default values.
- Cancel This option cancels your changes.

## **Configuring Contexts**

#### Example of a Configure Context Page



Context details are retrieved from context files. There is a Database Context page applicable to both Release 11i and Release 12, and different Applications Context pages for Release 11i and Release 12.

The Mapped Alias Host configuration information can be used in case of host aliasing to select Host Target registered with Enterprise Manager for this context.

#### Database Context Page for Releases 11i and 12



#### Applications Context Page for Release 11i

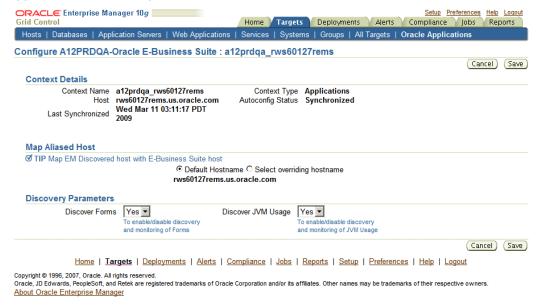


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About Oracle Enterprise Manager

#### Applications Context Page for Release 12



Parameter Name	Description	Default Value
Discover Forms	Enable/Disable discovery of the Oracle Forms target for this context.	Yes
Discover JVM Usage	Enable/Disable discovery of the JVM Usage target. This option will not affect rediscovery of the applications system.	Yes

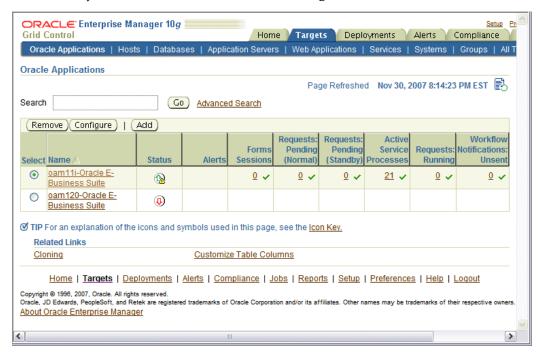
Once you have entered parameter values, you can do one of the following:

- Save This option saves your changes to the EM Repository.
- Cancel This option cancels your changes.

For the customization to take effect you must rediscover the Oracle E-Business Suite. Rediscovery can be done by discovering the Oracle E-Business Suite instance again. Rediscovery will not affect the history of any of the already discovered targets.

## **Configuring the Monitoring of Oracle E-Business Suite**

To edit the monitoring configuration of an Oracle E-Business Suite system, first select the desired system in the table, and then click **Configure**.



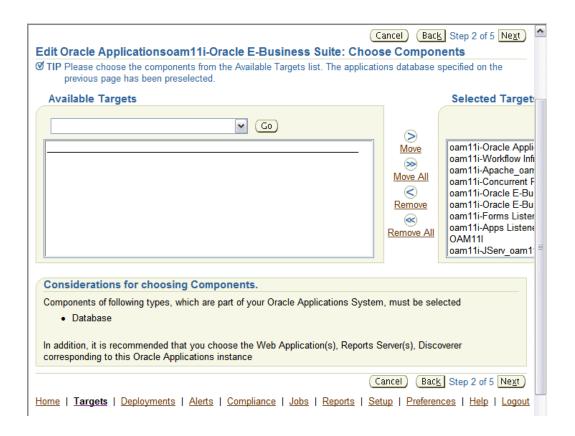
For more information on the Oracle Applications subtab, please see the section Using the Grid Control Pages to Manage the Oracle E-Business Suite, page 4-1. To access this subtab, you may need to set your Preferences in Grid Control (described in that section).

You can review and edit the monitoring schema information on this page.



- Monitoring Schema Username This is the name of the Monitoring schema in your Oracle Applications database. Enterprise Manager will connect to this schema to collect certain system metrics.
- Monitoring Schema Password This is the password of the Monitoring schema in your Oracle Applications database.

After you have reviewed the required information, click **Next** to continue.

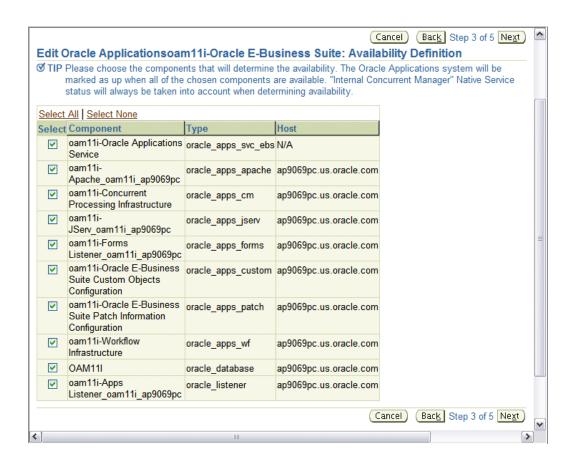


In this page, the registered Grid Control targets can be associated with the Oracle E-Business Suite system. These can include HTTP Servers, Oracle Forms listeners, databases, or any other targets registered in Grid Control. You will be able to monitor the status of these targets in the Oracle Applications pages, and you will later be given the option of defining the availability of the Oracle E-Business Suite system as a function of these targets.

**Note:** This page will attempt to automatically identify your Oracle E-Business Suite database and add it to the **Selected Targets** list. If the page cannot automatically match the database connection information that you provided to a registered target in Grid Control, then you will receive a warning, and you will need to add the correct database to the **Selected Targets** list manually.

To add a registered target to the Selected Targets list, choose the target type (for example, Database, Forms Listener for Oracle Applications Release 11i) and click Go. Select the appropriate target(s) from the **Available Targets** list, and click **Move**.

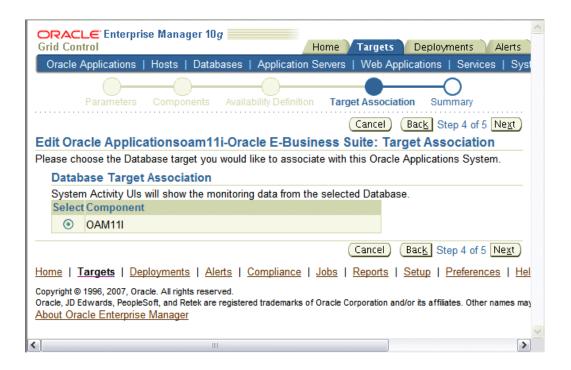
Once the **Selected Targets List** is complete, click **Next** to continue.



This page allows you to define the availability of your Oracle E-Business Suite system as a function of the availability of its member targets. Each selected target is included in the availability calculation for the Oracle E-Business Suite system. Any targets that are not selected are excluded from the availability calculation for the Oracle E-Business Suite system. The availability of the Oracle E-Business Suite system is calculated as described in the following table:

Selected Targets' Status	Oracle E-Business Suite System Status
All Up	Up
One or more Up	Partially Up
All Down	Down

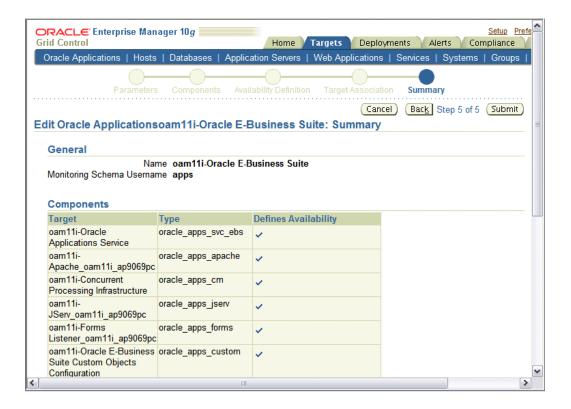
Once you have selected the appropriate targets, click Next to continue.



If you have associated multiple databases with the Oracle E-Business Suite system, then this page prompts you to specify the primary database and the primary Web application for your system.

The primary database is the database that contains the APPS schema for this Oracle E-Business Suite system. The database performance graphs shown in the Oracle E-Business Suite System Performance page are derived from this primary database.

Once you have selected the appropriate database and Web application, click Next to continue.



This page summarizes the configuration information for your Oracle E-Business Suite system. Click **Next** to complete configuring the Oracle Application system.

**Note:** To avoid possible errors when deleting composite targets, perform the following steps:

- Before deleting an Oracle Applications target, shut down all the agents for the target.
- Delete the Oracle Applications target.
- 3. Now start all the agents that were shut down earlier.

## **Configuring Monitoring of HTTPS/SSL Targets**

To configure Grid Control to monitor Oracle E-Business Suite middle tiers that are running in SSL, each Management Agent must be able to authenticate the middle tier's SSL certificate against its Certificate Authority (CA).

## **Assumed Prerequisites**

The HTTP Server that ships with Oracle E-Business Suite is already configured and verified to be running in SSL mode.

Basic knowledge of SSL certificates and their configuration.

### Obtaining the CA certificate(s)

- In Microsoft Internet Explorer, connect to the HTTPS URL of the Web site you are attempting to monitor.
- Double-click the lock icon at the bottom of the browser screen which indicates that you have connected to a secure Web site. The browser displays the Certificate dialog box, which describes the certificate used for this Web site. Other browsers offer a similar mechanism to view the certificate details of a Web site.
- Click the Certificate Path tab and select the first entry in the list of certificates.
- Click **View Certificate** to display a second Certificate dialog box.
- Click the Details tab on the Certificate window.
- Click **Copy to File** to display the Certificate Manager Export wizard.
- 7. In the Certificate Manager Export wizard, select Base64 encoded X.509 (.CER) as the format you want to export and save the certificate to a text file with an easily identifiable name, such as beacon\_certificate.cer.
- Open the certificate file using a text editor.

## Add the Certificate to the Management Agent(s)

Each Management Agent that monitors an Oracle E-Business Suite middle-tier must have the CA certificate added to it as follows:

- Locate the b64InternetCertificate.txt file in the following directory of Agent Home of the Beacon host: \$AGENT ORACLE HOME/sysman/config (This file contains a list of Base64 Certificates).
- Edit the b64InternetCertificate.txt file and add the contents of the certificate file you just exported to the end of the file, taking care to include all the Base64 text of the certificate including the BEGIN and END lines.
- Repeat for each Management Agent.

## Restart Each Management Agent

Each Management Agent should be restarted:

```
> $AGENT ORACLE HOME/bin/emctl stop agent
> $AGENT ORACLE HOME/bin/emctl start agent
```

Grid Control may not immediately pick up the change. You may want to give it a few minutes for the agent to run a metrics collection and upload them to the Oracle Management Server (OMS). You can click on the Refresh icon in the upper right of the Oracle E-Business Suite home page (by the Page Refreshed time stamp) in the Grid Control console to get updated information.

### A Note on Oracle Forms 6i

Even though your Oracle Forms configuration may be running in SSL, Grid Control does not require any additional configuration to monitor Forms. The reason for this is that it uses a different method for determining the Forms Server status which does not require SSL communications with the server.

### Re-Configuring SSL for Oracle E-Business Suite

If you have implemented SSL or deactivated SSL after the initial discovery of that Oracle E-Business Suite instance in Grid Control, you will have to re-configure Grid Control to monitor the new URL with the new protocol. There are two ways to do this:

- The Easy Way: If you don't care about the metrics data that has been collected for the instance, you can simply remove the instance from Grid Control and rediscover it.
- The Hard Way: If metrics history is important, then each HTTP Server Target has to be re-configured to point to the new URL, port, and protocol.

#### Re-configuring Release 11i Apache Targets

- Select the Release 11*i* instance in the Oracle Applications targets tab.
- Under Applications Nodes Status, expand the Context link that corresponds with your SSL middle tier.
- Select the Apache target (description: "HTTP Server for Oracle Applications 11*i*").
- Under "Related Links", select "Monitoring Configuration".
- Edit the Protocol and Port as appropriate.
- Click **OK**.

### Re-configuring Release 12 Application Servers

- Select the Release 12 instance in the Oracle Applications targets tab.
- Under Applications Nodes Status, expand the Context link that corresponds with vour SSL middle tier.

- Select the target described as "Oracle Application Server".
- Under "Related Links", select "Monitoring Configuration".
- Edit the "URL to measure application response" as appropriate.
- Click OK.

### References

- My Oracle Support (formerly Oracle MetaLink) Knowledge Document 123718.1 A Guide to Understanding and Implementing SSL with Oracle Applications Release 11*i*
- My Oracle Support Knowledge Document 376700.1 Enabling SSL in Oracle **Applications Release 12**
- My Oracle Support Knowledge Document 391652.1 Problem: Accessing Web application gives sun.security.validator.ValidatorException: No trusted certificate
- Oracle Enterprise Manager Advanced Configuration 10g Release 4 (10.2.0.4.0), Section "Adding Trust Points to the Management Agent Configuration"

## **Setting Up Oracle E-Business Suite Credentials**

Oracle E-Business Suite administration uses preferred credentials for connecting to the System and executing various commands. Before managing an Oracle E-Business Suite instance from the Administration Dashboard, the Preferred Credentials must be set for the specific Oracle E-Business Suite target and Oracle E-Business Suite Infrastructure target of the specific node. Applications Schema Credentials need to be set for only those targets whose administration requires Applications Schema Credentials.

To set these credentials, navigate to Preferences (global link) > Preferred Credentials in Oracle Enterprise Manager.

#### Setting Credentials for the Oracle E-Business Suite Infrastructure Target



#### Setting Credentials for the Oracle E-Business Suite Target

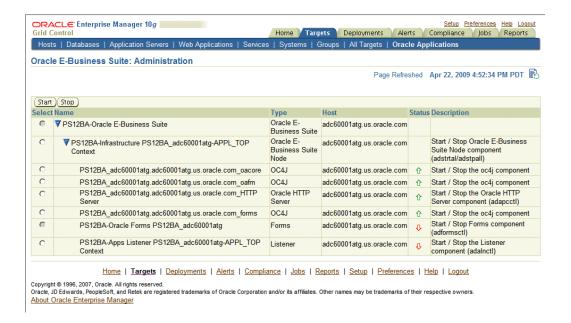


# **Oracle E-Business Suite Administration**

## **Administration**

The Oracle Application Management Pack for Oracle E-Business Suite provides an Administration dashboard for remotely managing Oracle E-Business Suite targets from a Grid Control console. Jobs can be submitted to start/stop various Oracle E-Business Suite components from the Administration dashboard. The details and statuses of these jobs can be tracked through standard Enterprise Manager Job screens.

Note: Please ensure that the "Management Services and Repository" is up before using the Administration dashboard.



**Note:** To use the Administration Dashboard, you should have privileges for the Oracle E-Business Suite target, as well as know the host credentials and applications credentials.

The following table displays the targets in a Release 11*i* system that can be controlled from the Administration dashboard.

Oracle E-Business Suite Target Type	AD script used	Requires Apps Credentials	Short Description
Internal Concurrent Manager	adcmctl.sh	Yes	Start / Stop the Internal Concurrent Manager component
Oracle E-Business Suite Infrastructure	adstrtal.sh / adstpall.sh	Yes	Start / Stop the Oracle E-Business Suite node component
Listener	adalnctl.sh	No	Start / Stop the Listener component

Oracle E-Business Suite Target Type	AD script used	Requires Apps Credentials	Short Description
Discoverer for Oracle Applications 11i	addisctl.sh	No	Start / Stop the Discoverer component for Oracle Applications 11i
Reports Server for Oracle Applications 11i	adrepctl.sh	No	Start / Stop the Reports Server for Oracle Applications 11 <i>i</i> component
HTTP Server for Oracle Applications 11i	adapcctl.sh	No	Start / Stop the HTTP Server component for Oracle Applications 11 <i>i</i>
Forms Listener for Oracle Applications 11i	adformsctl.sh	No	Start / Stop the Forms Listener component for Oracle Applications 11 <i>i</i>

The following table displays the targets in a Release 12 system that can be controlled from the Administration Dashboard.

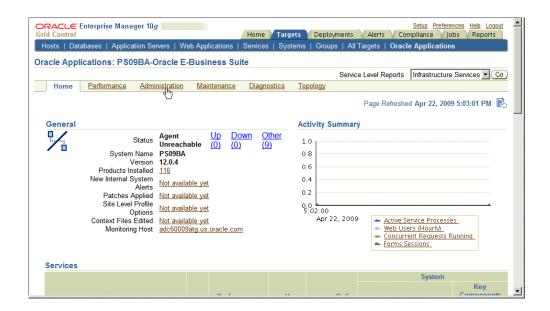
Oracle E-Business Suite Target Type	AD script used	Requires Apps Credentials	Short Description
Internal Concurrent Manager	adcmctl.sh	Yes	Start / Stop the Internal Concurrent Manager component
Oracle E-Business Suite Infrastructure	adstrtal.sh / adstpall.sh	Yes	Start / Stop the Oracle E-Business Suite node component
Listener	adalnctl	No	Start / Stop the Listener component
Forms	adformsctl	No	Start / Stop the Forms component

Oracle E-Business Suite Target Type	AD script used	Requires Apps Credentials	Short Description
OC4J forms	adformsctl.sh	No	Start / Stop the Forms OC4J Forms component
OC4J oacore	adoacorectl.sh	No	Start / Stop the oacore oc4j oacore component
OC4J oafm	adoafmctl.sh	No	Start / Stop the oafm oc4j oafmcomponent
Oracle HTTP Server	adapcctl	No	Start / Stop the Oracle HTTP Server component

## **Administration Dashboard**

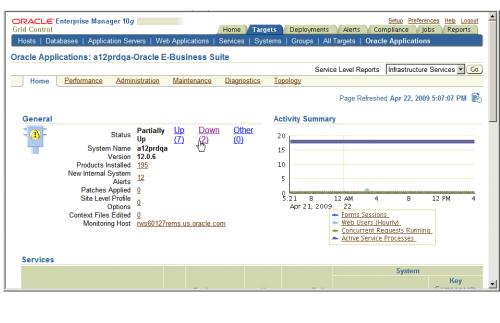
The Administration dashboard can be reached through the following navigation paths:

• From Administration tab of the Oracle E-Business Suite





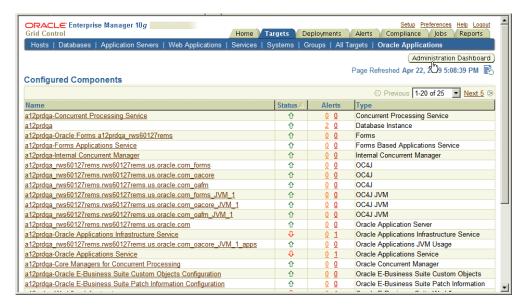
From the Up/Down/Other Target Status page





From the Configured Components page





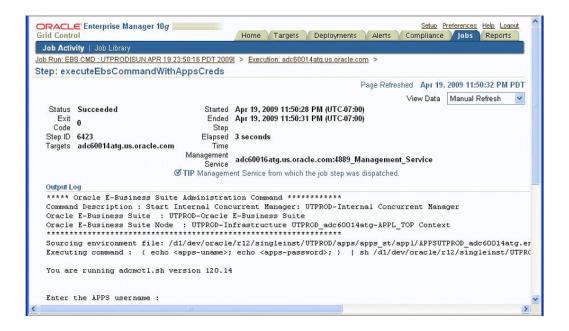
## Starting or Stopping a Target

To start/stop a target, select the target and click the **Start** or **Stop** button. A message page will appear. Click **OK** to submit a job for the requested operation.



The status of the Job can be viewed from the Oracle Enterprise Manager Jobs page.





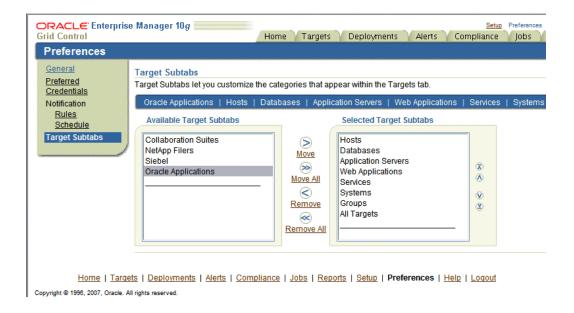
# The System Management Dashboard

## **Using the Grid Control Pages to Manage Oracle E-Business Suite**

Grid Control allows you to monitor multiple Oracle E-Business Suite systems from a single console and to drill down into Oracle Applications Manager where you can control, configure, troubleshoot, and maintain individual systems. Once you have registered your Oracle E-Business Suite systems, you can start using the features of Grid Control for managing those systems.

## **Enabling the Oracle Applications Subtab**

The Oracle Application Management Pack for Oracle E-Business Suite provides a new Oracle Applications subtab under the Targets tab of Grid Control. You can enable or disable this subtab, depending on your preferences. By default, this new subtab is enabled only for the SYSMAN user.



To enable the subtab:

- Click on the global **Preferences** link in Grid Control.
- Select **Target Subtabs** from the menu on the left of the page.
- Choose Oracle Applications from the Available Target Subtabs list.
- Click **Move** to move your selection to the **Selected Target Subtabs** list.

## **Setting Up Credentials**

When using the Oracle Application Management Pack for Oracle E-Business Suite, you will need to access Oracle E-Business Suite instances. You can set up credentials for these instances as a one-time setup step instead of entering them every time you need to access an instance.

Use the following steps to set up credentials:

- Within Oracle Enterprise Manager, select the **Preferences** global link.
- Select Preferred Credentials.
- Select the Set Credentials icon to set the credentials for target types "Oracle E-Business Suite Infrastructure" and "Oracle E-Business Suite".
- **4**. Set the values as needed in the resulting page.

## The Oracle Applications Page

Access the Oracle Applications page by clicking on the Oracle Applications subtab under the Targets tab in Grid Control.



This page provides an overview of the Oracle E-Business Suite systems that have been registered with Grid Control. You can register a new system by clicking Add, and following the directions in the section Discovering Oracle E-Business Suite Systems with Grid Control, page 2-1. You can remove an Oracle E-Business Suite system from Grid Control by selecting the desired system in the table, and then clicking Remove. You can also edit the monitoring configuration of a system by selecting the desired system in the table, and then clicking Configure.

The Oracle Applications page summarizes the status of each Oracle E-Business Suite system that has been registered with Grid Control. For each system, the page also provides a set of metrics that summarize aspects of system usage and performance. You can drill down on the Oracle E-Business Suite system Name to access the home page for that system. You can also drill down on any summary metric to view the historical values of that metric.

This page also provides you with links to additional features:

- About Oracle E-Business Suite Management Pack
- Cloning Described in a later chapter.
- Customization Manager Described in the Oracle Application Change Management Pack for Oracle E-Business Suite User's Guide.
- Customize Table Columns Described in the section below.

- Discovery Wizard Described in an earlier chapter.
- Patch Manager Described in the *Oracle Application Change Management Pack for Oracle E-Business Suite User's Guide*.
- Setup Manager Described in the *Oracle Application Change Management Pack for Oracle E-Business Suite User's Guide*.

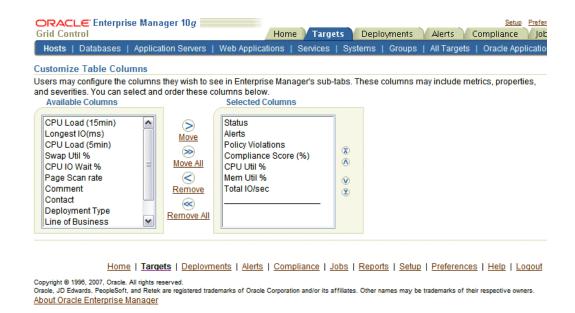
Also, you can click on the Change Management tab to access the features of the Oracle Application Change Management Pack for Oracle E-Business Suite.

### **Configure Table Columns (Configure Summary Metrics)**

You can configure the summary metrics that are displayed in the Oracle Applications page by clicking on the Customize Table Columns link.



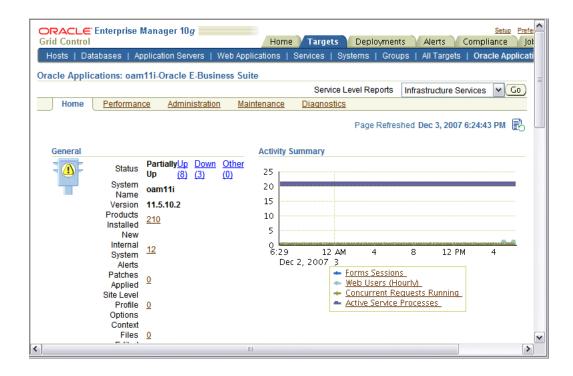
Use the shuttle control to select the summary metric columns that you would like to appear in the Oracle Applications page.



Descriptions of the available "summary" metric columns can be found in the next section.

## The Oracle Applications System Home Page

The home page for an individual Oracle Applications system can be reached by drilling down from the Oracle Applications page as described in the section above. You can also reach the home page by drilling down on the desired Oracle Applications system target in the All Targets page and in other pages of Grid Control.



The Oracle Applications System home page provides an overview of the status of a single Oracle Applications system. This page is divided into the following sections:

### General



The General section provides general status and configuration information, including:

Status - The status of the Oracle Applications system, calculated based on the
availability of its member targets that contribute to its availability definition. In
addition to the current status of the system, you can see the counts of member
targets that fall into the status categories of Up, Down, or Other. You can drill down
on a status category to view the targets that currently fall into that category.

**Note:** When an Oracle E-Business Suite instance is brought down on both the middle tier and the database tier, the following 3 targets will be listed with the status of Other, with metric collection errors:

- Concurrent Processing Service
- **Internal Concurrent Manager**
- Workflow Service

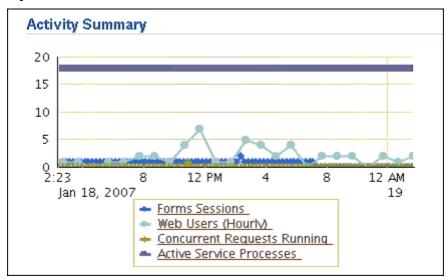
When Enterprise Manager encounters an error during the collection of the metric "Response (Status)" for any target, it retains the error until it is cleared.

- System Name The system name that was entered when the system was registered as described in the section above.
- Version The current release level of the Oracle Applications system. The level is set at installation time, and is updated when Maintenance Packs are applied. Please note that family packs, mini-packs, and individual patches do not update this version number. The actual patch levels of individual products may be more recent than the system version.
- Products Installed This indicates the number of products that are installed in the Oracle Applications system. If the Oracle Applications Enterprise Manager interoperability patch has been applied to the managed system, then you can drill down on this value into Oracle Applications Manager, where you can view the list of products installed, and the patch levels of those individual products.
- New Internal System Alerts This metric is only available when the Oracle Applications Enterprise Manager interoperability patch has been applied to the managed system. This metric shows the number of System Alerts within Oracle Applications Manager that have a status of New. You can drill down on this number to view the details in Oracle Applications Manager. Note that these System Alerts originate from within the Oracle Applications System itself, and are complementary to the Oracle Enterprise Manager alerts discussed below. For more information on System Alerts, please see the Oracle Applications Manager online help.
- Patches Applied This metric is only available when the Oracle Applications Enterprise Manager interoperability patch has been applied to the managed system. This metric indicates the number of patches that have been applied to the system in the last 24 hours. You can drill down on this metric to view the patches in Oracle Applications Manager.

- Site Level Profile Options Changed This metric indicates the number of site level profile options that have changed on the system in the last 24 hours. You can drill down on this metric to view the site level profile options in Oracle Applications Manager. (Note: For Release 11i, this metric is available only when the Oracle Applications Enterprise Manager interoperability patch has been applied to the managed system. See My Oracle Support Knowledge Document 982302.1 for information on required patches.)
- Context Files Edited This metric is only available when the Oracle Applications Enterprise Manager interoperability patch has been applied to the managed system. This metric indicates the number of AutoConfig context files that have changed on the system in the last 24 hours. You can drill down on this metric to view the context files in Oracle Applications Manager.
- Monitoring Host The host of the agent that is monitoring the Oracle Applications system. This host was selected when the Oracle Applications system was registered as described in the section above. You can drill down on the host name to reach the Grid Control home page for the host.

The New Internal System Alerts, Patches Applied, Site Level Profile Options Changed, and Context Files Edited metrics are based on information periodically summarized in the Oracle Applications database by the Oracle Applications Manager Dashboard Collection concurrent program. This program is controlled through the Preferences global link in Oracle Applications Manager. If this program has been disabled in the Oracle Applications system for some reason, then these metrics will not be updated.

## **Activity Summary**



The activity summary provides an overview of system activity for the last 24 hours

#### including:

Form Sessions - This metric indicates the number of open Form sessions on the system at a given point in time.

> **Note:** To enable Oracle Applications Manager and Grid Control to collect this metric, set the profile option Sign-on: Audit Level to "Form" in the target Oracle Applications system.

- Web Users (Last Hour) This metric measures the number of distinct users to access Oracle Applications HTML pages during the previous hour.
- Concurrent Requests Running This metric indicates the number of concurrent requests running on the system at a given point in time.
- Active Service Processes The meaning of this metric differs depending on whether or not the Oracle Applications Enterprise Manager interoperability patch has been installed on the target system. If the interoperability patch has been applied, then this metric indicates the number of active application tier processes that are running under the Generic Service Management feature of Oracle Applications Release 11i. This metric includes concurrent processing infrastructure processes, Workflow Mailer processes, and more. If the interoperability patch has not been applied to the target system, then this metric indicates only the number of active concurrent processing infrastructure processes on the application tier. The concurrent processing infrastructure includes concurrent managers, transaction managers, service managers, the Internal Concurrent Manager, the Conflict Resolution Manager, and the Scheduler.

### Services

Services					System	1
Name	Status	Performance Alerts	Usage Alerts	Policy Violations	Name	Key Components Status Alerts
▼ oam11i-Oracle Applications Service	0	<u>0</u> <u>0</u>	<u>0</u> <u>0</u>		oam11i-Oracle Applications System	↓ 1 0 0 0 0 0
➤ oam11i-Oracle Applications Infrastructure Service	0	<u>0</u> <u>0</u>	<u>0</u> 0		oam11i-Oracle Applications System	<u>↓ 2</u> 2 0

Using the Service Level Management feature with Enterprise Manager Grid Control, Oracle Applications middle tier components can be monitored for their availability and performance. The middle tier components, being the infrastructure for Oracle Applications, are monitored not only for their key processes but also for all the other components on which they are dependent.

The Oracle Applications Infrastructure service is defined by the following:

- Concurrent Processing Service This service provides a summary of the availability and performance of concurrent processing within Oracle Application.
- Forms Applications Service This service provides a summary of the availability and performance of Oracle Forms within Oracle Applications.
- Self-Service Applications Service This service provides a summary of the availability and performance of Oracle Application Framework pages within Oracle Applications.
- Workflow Service This service provides a summary of the availability and performance of Oracle Workflow within Oracle Applications.

The following table provides details of the core service/component that's being monitored as part of the infrastructure service and also the key components on which the core service is dependent.

Infrastructure Service	Core Service / Component Monitored	Key Components
Concurrent Processing Service	Internal Concurrent Manager	<ul><li>Database Instance</li><li>Applications Listener</li></ul>
Forms Application Service	OC4J Forms Server	<ul><li>Oracle HTTP Server</li><li>Database Instance</li></ul>
Self Service Application Service	OC4J (Oracle Application Framework)	<ul><li>Oracle HTTP Server</li><li>Database Instance</li></ul>
Workflow Service	<ul> <li>Workflow Agent Listener</li> <li>Workflow Background Engine</li> <li>Workflow Notification Mailer</li> </ul>	<ul> <li>Oracle Concurrent Manager</li> <li>Database Instance</li> <li>Applications Listener</li> </ul>

## **Application Node Status**



The Application Node Status provides a summary of the availability statuses of various components such as Forms, Applications Listener, Application Server and Database Instance. The availability status information is summarized at the node level. The host details such as host name, platform and the host status are available for each component.

### Alerts and Related Alerts



The Alerts section provides an overview of the Alerts posted by Oracle Enterprise Manager for targets that have become unavailable, or for metrics that have exceeded specified thresholds. The Alerts table shows alerts specifically for the Oracle Applications system target.

The Related Alerts table shows alerts for all targets that were registered as members of the Oracle Applications system but being monitored separately outside the pack.

You can drill down to view the details of an alert by clicking on the corresponding name in the **Metric** column. You can drill down to the related target's home page by drilling down on the Target Name. To define an alert metric threshold for alerting, click the Edit Metric Thresholds link under Related Links at the bottom of the page. For more information on metrics and alerts, please see the Enterprise Manager 10g Grid Control documentation.

### Related Links

Related Links include:

- All Metrics
- Metric Thresholds
- **Target Properties**
- Monitoring Configuration
- Alerts History
- **Configured Components**
- Oracle Applications Manager

Most of these links and their features are described in the Oracle Enterprise Manager documentation.

The Configured Components page lists each component, its status, number of alerts, and component type. You can drill down to more details on each component, its status, and alerts using the links provided.

The Oracle Applications Manager (OAM) link opens a new browser window for OAM in the Oracle E-Business Suite; OAM is described in the Oracle E-Business Suite System Administrator's Guide Documentation Set.

## The Oracle Applications System Performance Page

The Oracle Applications System Performance page pulls together key usage and performance indicators for the system in general, and for each tier of the system. You can change views using the **View** list. Four views are provided:

- Activity
- **Applications Server**
- Database
- All

Each view provides a set of charts. You can control the period of time depicted by the charts using the View Data list.

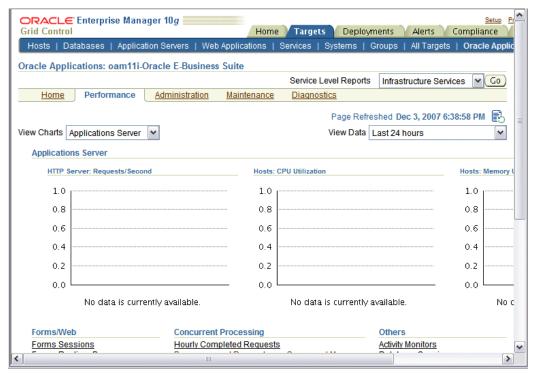
### The Oracle Applications System Activity View



The Oracle Applications System view provides an overview of key system-wide metrics. This view contains the following three charts:

- Concurrent Requests This chart depicts the concurrent request load on the system. The chart shows the numbers of Pending Normal, Pending Standby, and Running concurrent requests at each point in time.
- User Sessions This chart depicts the end user activity on the system. The chart shows the number of Oracle Forms sessions active at each point in time. Also, the chart shows the count of users who have accessed the HTML-based applications over hourly intervals.
- Workflow Items This chart depicts the messaging activity in Oracle Workflow's Business Event System. The chart shows the count of messages by status for each period of time.

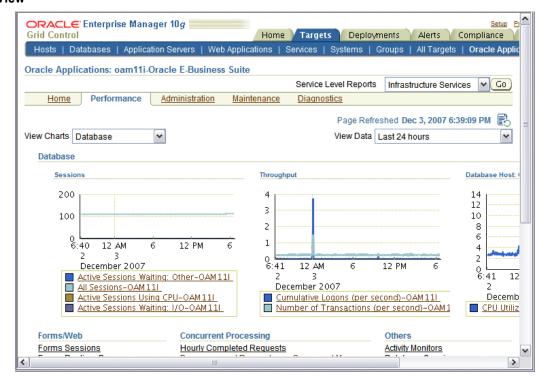
### The Applications Server View



The Applications Server view shows key middle tier usage and performance metrics for the Oracle Applications system. This view provides the following three charts:

- HTTP Server: Requests/Second This chart depicts the throughput of the HTTP Server at each point in time. Multiple HTTP servers are represented by different lines in this graph.
- Hosts: CPU Utilization This chart depicts the CPU utilization on each Applications Tier host. Multiple hosts are shown as different lines in this graph.
- Hosts: Memory Utilization This chart depicts the memory utilization on each Applications Tier host. Multiple hosts are shown as different lines in this graph.

#### The Database View

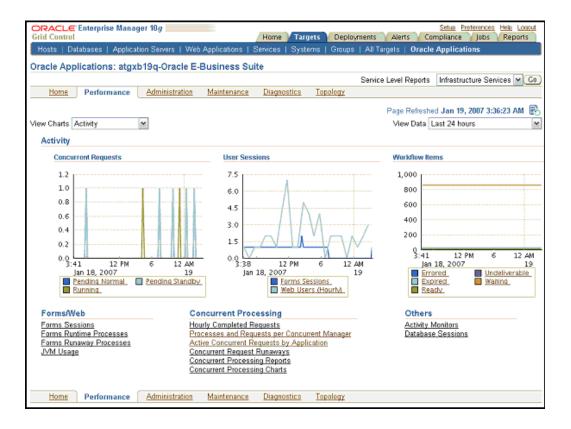


The Database tier view shows usage and performance metrics for the Oracle Applications system database and its hosts. This view provides the following three charts:

- Sessions This chart breaks down the database session usage. The data points include the total count of database sessions, the count of active sessions using CPU, the count of active sessions waiting on I/O, and the count of active sessions waiting on other resources.
- Throughput This chart provides two indicators of database throughput: the number of transactions per second and the number of logins per second.
- Database Hosts: CPU Utilization This chart depicts the CPU utilization on each database tier host. Multiple hosts are shown as different lines in this graph.

### JVM Usage

The Oracle Application System JVM usage summary can be viewed from the Performance page. Click the JVM Usage link available under the heading Forms/Web.



The JVM usage information is available across all the multiple nodes. The following metrics are collected as part of the JVM Usage:

- Application Module pool Provides information about all the active and leaked Application Modules.
- Locked AOLJ Connections Provides information about all the locked and leaked AOL/J connections utilized by applications.
- Cache Components Provides information about the cache component utilization by Oracle Application Framework.

For Release 12 systems, in order to enable collection of the data for Application Modules, AOL/J Connection, and Cache Components columns, please ensure that you have set up the monitoring configuration for each "oacore" OC4J target as follows:

- For each "oacore" OC4J target click on the name link. The oacore OC4J targets are named in <context\_name>.<hostname>\_oacore format and are parent targets of each JVM target.
- 2. On the home page of the oacore OC4J target, click on "Monitoring Configuration" link under the Related Links section.
- Enter the OC4J administrator username and password for the "oacore" OC4J in the

"Username for Basic authorization" the "Password for Basic authorization" fields respectively. Please refer to the note below to determine the values for these fields.

Click on **OK** to save the information.

**Note:** The OC4J administrator username by default is "oc4jadmin" and is specified in the system-jazn-data.xml file under the \$INST\_TOP/ora/10.1.3/j2ee/oacore/config directory. The oc4jadmin password by default is set to a randomized value during install and will need to be reset as follows:

In the \$INST\_TOP/ora/10.1.3/j2ee/oacore/config/system-jazn-data.xml file, set the value of the "credentials" element for oc4jadmin user to your chosen password preceded by a! character. For example:

```
<user>
<name>oc4jadmin</name>
<display-name>OC4J Administrator</display-name>
<description>OC4J Administrator</description>
<credentials>!welcome</credentials>
```

After saving system-jazn-data.xml restart the oacore OC4J. This will encrypt the updated password in system-jazn-data.xml.



For both Release 11i and Release 12, ensure that the Application Server passwords are set as well, because Oracle Enterprise Manager expects these passwords to be set for metrics collection for the JVM targets.

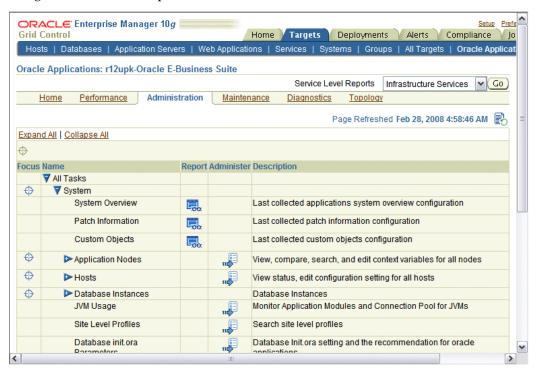
## **Drill down to Oracle Applications Manager**

The Oracle Applications System Performance page provides seamless integration to performance pages within Oracle Applications Manager (OAM). You can use the links provided to access the performance metrics within OAM.

# The Oracle Applications System Administration Page

The Oracle Applications System Administration page provides seamless integration with all the administrative activities within Oracle Applications Manager (OAM). Click on the icon in the "Administer" column to navigate to a feature's OAM administrative page.

Configuration reports of the middle-tier components can be accessed from this page using the icons in the "Reports" column.



This section describes the various configuration reports accessible from the Administration page.

> **Note:** On the entire configuration reports page, you can perform the following actions:

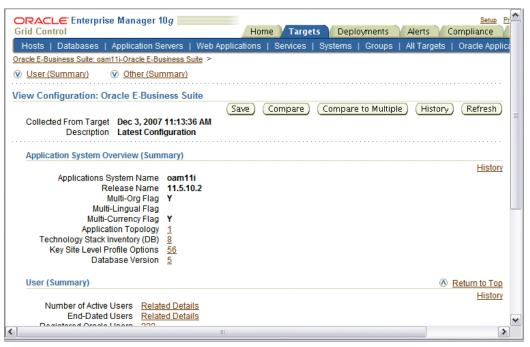
- Save You can save the current configuration snapshot for either comparing with other reports or for viewing historical changes.
- Compare You can compare the configuration information with that of the same system, saved at an earlier time, or with information of another system.

- Compare with Multiple You can compare the configuration information of a system with multiple other systems (being monitored using Grid Control).
- History You can view the change history of the configuration.
- Refresh You can refresh the configuration report to reflect the latest data.

#### **View Configuration**

The Oracle E-Business Suite system configuration can be accessed from the Administration tab. Click on the icon in the Reports column for System Overview.

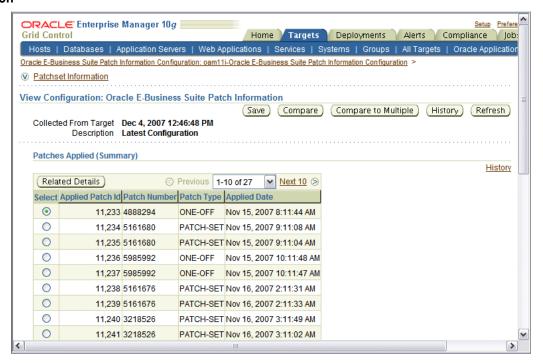
#### **System Overview**



The System Overview view is broken into three sections:

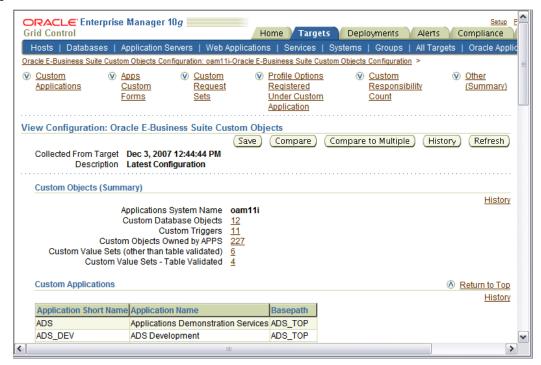
- **Application System Overview Summary**
- User Summary
- Other Summary

#### **Patch Information**



The Patch Information view provides information about all the patches that have been applied to the Oracle E-Business Suite system.

#### **Custom Objects**

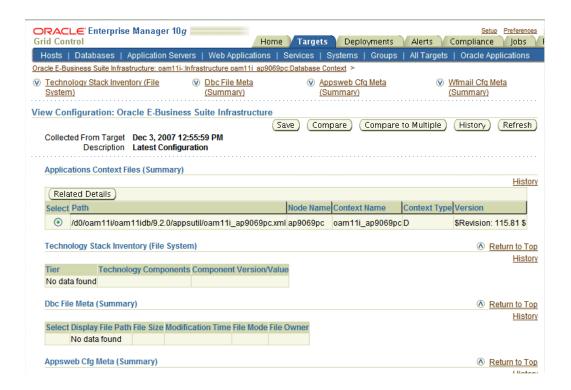


In the custom objects view you can see all the Oracle E-Business Suite customizations.

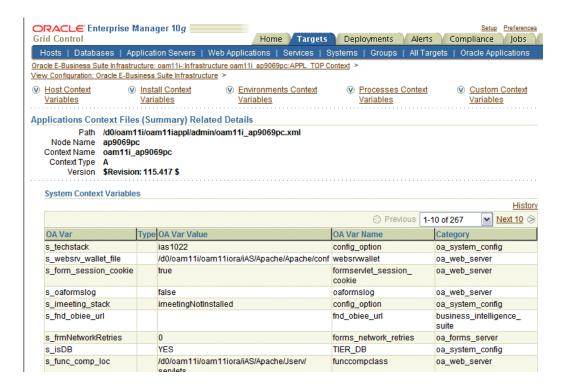
#### **View Oracle E-Business Suite Context Files**

The Oracle E-Business Suite applications context files can be accessed from the Administration tab.

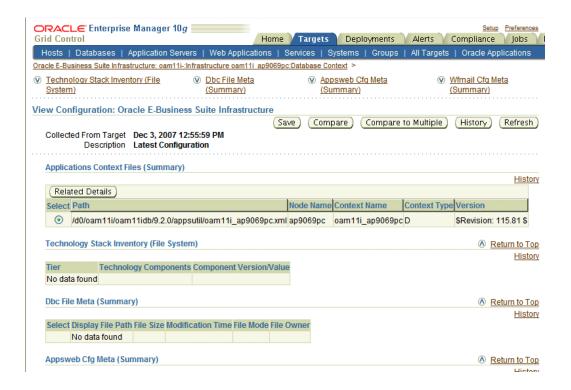
To view the context file for the application tier, expand "Application Nodes" in the table, then click the icon in the Report column for "APPL-TOP Context".



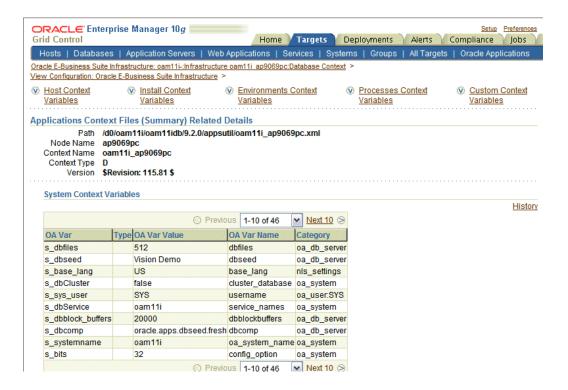
Next select the appropriate context file and click **Related Details** button to view the context file.



To view the context file for the database tier, click the icon in the Report column for "Database Context".



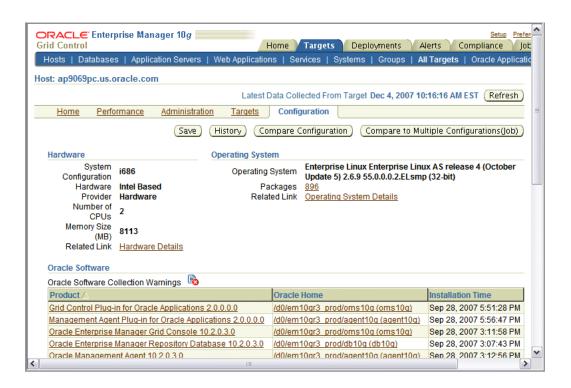
Next select the appropriate context file and click the Related Details button to view the context file.



#### View Host Configuration

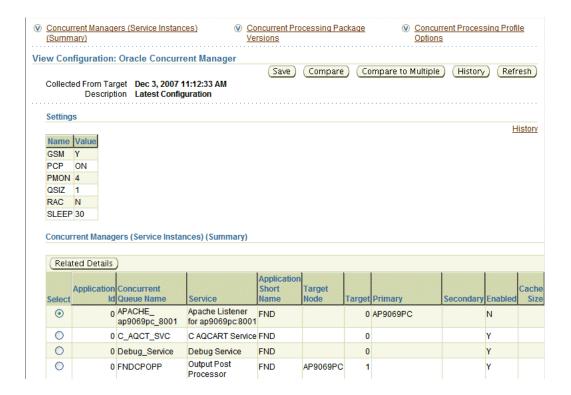
The host configuration details can be accessed from the Administration tab. Expand the "Hosts" heading to view a listing of individual hosts; then for each host, click on the icon under the Report column to view its details.

You can view the configuration information of the hardware, operating system, Oracle software (such as Java Runtime Environment or the Oracle database product) and OS-registered software.



### **View Concurrent Processing Configuration**

The Concurrent Processing configuration details can be accessed from the Administration tab.

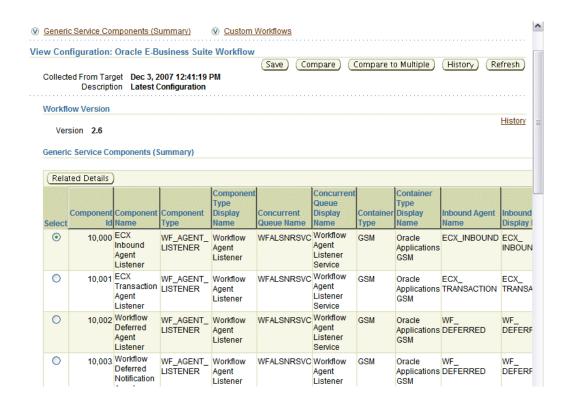


You can view the configuration information for the concurrent processing component of the Oracle E-Business Suite system. The configuration information that can be viewed is:

- Profile option settings for concurrent processing
- Concurrent managers and their configuration attributes

### **View Oracle Workflow Configuration**

The configuration information for the Oracle Workflow component of the Oracle E-Business Suite system is available from the Administration tab.



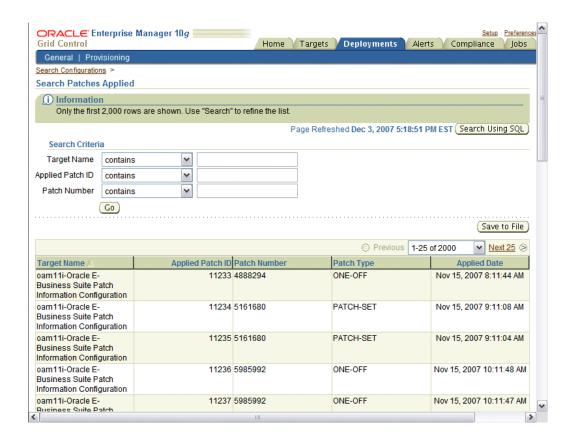
Configuration information is shown for the following components:

- XML Gateway (ECX) Inbound Agent Listener
- XML Gateway (ECX) Transaction Agent Listener
- Workflow Deferred Agent Listener
- Workflow Deferred Notification Agent Listener
- Workflow Inbound Notifications Agent Listener
- Workflow Notification Mailer

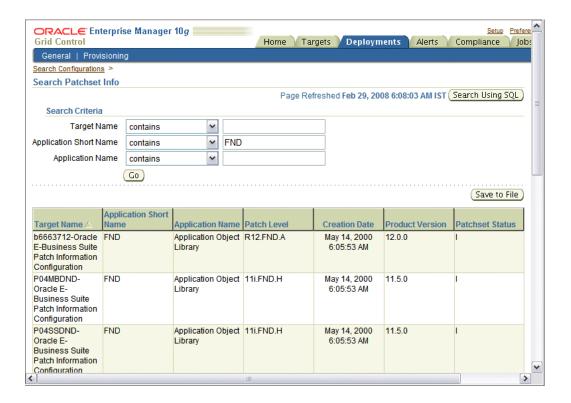
#### **Search Patch / Patchset Information**

You can search for Oracle E-Business Suite patch/patchset information from the Administration tab.

You can search for patch information by Target Name, Applied Patch ID, or Patch Number.



You can search for patchset information by Target Name, Application Short Name, or Application Name.



#### **Compare Information (One to One)**

For all the configuration reports you have viewed in the earlier sections, you can perform a one-to-one comparison of the report with that of another instance or the same report that was saved previously.

- Click the **Compare** button within the configuration report.
- Choose the configuration report from another instance or from a "Saved Configurations" of the current system and click the Compare button.
- The comparison results are shown.

## Compare Information (One to Many)

You can also compare a configuration report to other reports for multiple instances in a single request.

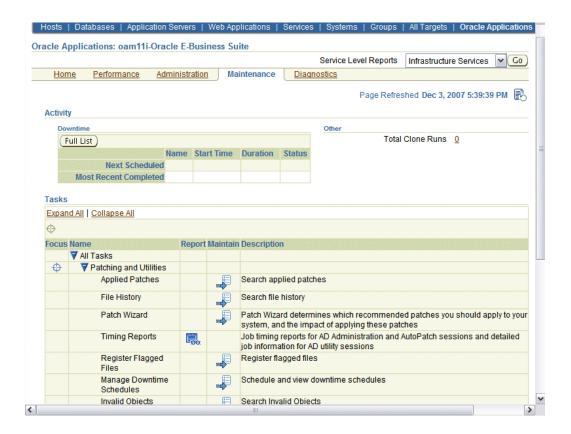
To compare configuration with multiple other configurations, click the **Compare to Multiple** button within the configuration report.

By default the latest configuration information for the system is used for comparison. However, you can choose information from another saved configuration (with an earlier timestamp).

- 2. Select all the Oracle E-Business Suite systems whose configuration information needs to be compared with the first (selected in the earlier step). Any number of Oracle E-Business Suite systems can be added for comparison. By default, their latest configuration information is utilized; however, a saved "snapshot" can also be used.
- 3. You can schedule the comparison to begin immediately or on a future date (also an option to choose a convenient time zone is available). This comparison job can also be repeated and options for the same are available in this page.
- Complete the comparison job by reviewing the details that you had provided.
- View the result summary of the comparison job done across multiple instances.
- Click the **Different** link to view the actual differences between configurations.

# The Oracle Applications System Maintenance Page

The Oracle Applications Maintenance page provides access to the Oracle Application maintenance activities particularly in the areas of patching and cloning.

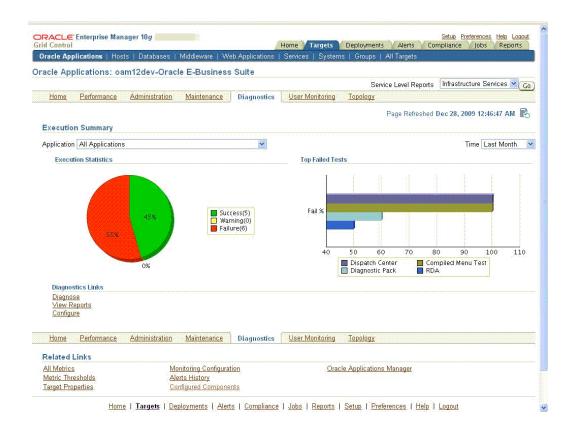


The Maintenance page is divided into the three sections:

- Activity This section provides a summary of system down time that has been scheduled and that have recently been completed.
- Tasks The Tasks table provides links to various patching and cloning tasks.
  - Patching tasks these links direct you to the corresponding tasks page within Oracle Applications Manager.
  - Cloning tasks Cloning can be done automatically from the Oracle Application Management Pack for Oracle E-Business Suite and is discussed later in this document.
- Links for other maintenance activities are also provided.

# The Oracle Applications System Diagnostics Page

The Diagnostics page provides summary results of Diagnostic Test execution within the system.



The Diagnostics Dashboard shows the execution statistics of diagnostic tests across all applications as well as for a specific application.

Navigation: From the Oracle E-Business Suite instance's Application Management Pack Dashboard, navigate to the Diagnostics subtab.

The dashboard has two charts, one pie chart and a bar chart. These charts allows you to select the application for which the statistics is needed. By default statistics across all applications is displayed.

It is a possible to see the statistics for last month, last week, or last 24 hours.

The Execution Statistics pie chart show the success, failure, and warning rates of diagnostics tests depending on the selection of application.

The Top Failed Tests bar chart shows the top five failed tests in terms of percentage of failure. By default tests across all applications is shown. You can see the top failed tests under a specific application by selecting it.

Links are provided to open the associated Oracle E-Business Suite instance in a separate window and open up the Oracle Diagnostics pages in Oracle E-Business Suite.

# The Oracle Applications System User Monitoring Page



The User Monitoring page enables you to link a database session to an Oracle E-Business Suite user session. In this way you can link a performance issue in a database session to activity done by that Oracle E-Business Suite user. The User Monitoring feature checks three entities: Concurrent Programs requests, Forms sessions, and Oracle Application Framework sessions to see if it can find a match for the database session ID.

**Note:** If the database session is triggered by something else, this system will not be able to capture it. This is a limitation.

User Monitoring requires additional setup steps. On the OMS side:

Set the preferred credentials of "Oracle E-Business Suite" target type for the Applications login user name and password.

Additional setup steps required on the Oracle E-Business Suite side are:

- For the above Applications login user, assign "LCM\_EM\_CLIENT" responsibility.
- Form sessions can be monitored only when the following site-level profile is set to 'FORM': Profile Name - Sign-On: Audit Level, Profile Code -SIGNONAUDIT:LEVEL.

Navigation: From the Oracle E-Business Suite instance's Application Management Pack Dashboard, navigate to the User Monitoring subtab.

The dashboard has four bar charts of database sessions (triggered by APPS user only)

- Top waiting sessions; that is, sessions waiting for a database event to trigger to proceed further
- Top running SQL statements
- Top CPU consuming sessions
- Top memory intense sessions

The count in the bar chart is configurable by setting the property um dashboard no of rows in the "amp, properties" configuration file with the maximum limit as 10. The legend of the graph shows the name of the Oracle E-Business Suite user for the corresponding session in the graph. If Oracle E-Business Suite user is not available, the database SID itself is shown in the legend.

You can drill down from the legend to see the details of the session. If the Oracle E-Business Suite user information is available, the Oracle E-Business Suite session details will be shown with further drilldown to the database session details. If the Oracle E-Business Suite user information is not available, you can drill down to the database session details. The charts are derived by monitoring session history for the last 15 minutes. This interval is configurable by setting the property um\_session\_sampling\_interval in the amp.properties file. The maximum value allowed is 60.

**Note:** If you make changes to the configuration file "amp.properties", the changes will take at least fifteen (15) minutes to take effect. If you want the changes to take effect immediately, restart the OMS.

### Search Applications User Sessions

It is possible to search for Oracle E-Business Suite user sessions from the User Monitoring subtab.

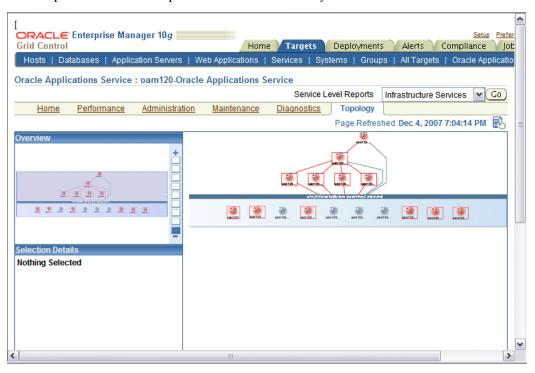
The link to this search feature is available in the dashboard itself.

- Using DB Session ID Provide the database session ID and if a match is found with a concurrent program, form or OA page, the details will be shown with a drilldown facility to the database session details.
- Using Oracle E-Business Suite user name This search shows all the active concurrent programs, Forms, and Oracle Application Framework pages used by the user. It will also show the associated database session ID with drilldown capability.

# The Oracle Applications System Topology Page

**Note:** This page is available for Oracle E-Business Suite Release 12 only.

The Oracle Application System Topology page lists the dependencies between the infrastructure services, the key system components, and other services that define their availability. Upon service failure, the potential causes of failure, as identified by Root Cause Analysis, are highlighted in the topology view. In the Topology page, you can view dependent relationships between services and systems.



The Topology page shows the infrastructure service Topology view of the Oracle Application system. The icons represent each service and the lines connecting them show their dependencies. This view allows administrators to identify the root cause of a problem much more quickly compared to a tabular representation of the same information.

Links to related features are also on this page, including:

- All Metrics
- Metric Thresholds
- **Target Properties**
- Monitoring Configuration

- Alerts History
- Configured Components
- Configure Order Management

# The Concurrent Processing Dashboard

### Introduction

The Concurrent Processing Dashboard provides you with details in concurrent processing in your Oracle E-Business Suite system. The dashboard gives you a complete picture of concurrent processing on your system, both current activity as well as usage statistics.

You can add a user-defined concurrent program as a target to the Oracle E-Business Suite composite target. You can then monitor related activities of the registered individual concurrent programs for your own specified thresholds.

You can also add a user-defined concurrent manager as a target to the Oracle E-Business Suite composite target. You can then monitor related activities of the registered individual concurrent managers for your own specified thresholds.

The Concurrent Processing Dashboard is available from the Performance tab of the main Administration Dashboard, under Concurrent Processing.

#### **Overview Tab**



The General region lists the status of the Concurrent Processing Service

- Status The status is linked to the Concurrent Processing Service home page.
- Active Service Processes Number of active service processes.
- User-defined Concurrent Program Targets Defining these targets is described in a later section.
- Configured Concurrent Managers The number of configured concurrent managers.

The Hourly Completed Requests region shows a pie chart for requests by status (Successful, Warning, and Errored).

The Activity Summary graph illustrates active requests in the following statuses

- Pending Normal
- Pending Standby
- Running

The Components region lists components of the Concurrent Processing service. The table shows the following for each component:

- Name
- Type
- Status
- Alerts
- Host

The Alerts region lists any alerts that were triggered recently, with the following information for each:

- Severity
- Metric
- Target Name
- Target Type
- Alert Triggered
- Last Value
- Last Checked

At the bottom of the dashboard are Related Links:

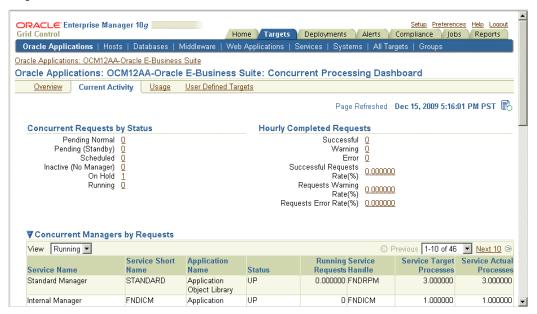
The first three links provide metrics on requests and processes:

- **Hourly Completed Requests**
- Processes and Requests per Concurrent Manager
- Active Concurrent Requests by Application

The last three links take you to Oracle Applications Manager pages for the Oracle E-Business Suite instance:

- Concurrent Request Runaways
- Concurrent Processing Reports
- Concurrent Processing Charts

# **Current Activity Tab**



The Concurrent Requests by Status region lists the number of requests for each status:

- Pending Normal
- Pending (Standby)
- Scheduled
- Inactive (No Manager)
- On Hold
- Running

Click on the number for a status to find out more about the metric trend.

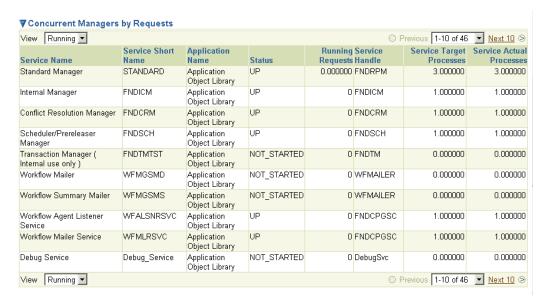
The Hourly Completed Requests region lists statistics for requests that have completed in the past hour, including:

- Successful
- Warning
- Error
- Successful Requests Rate (%)

- Requests Warning Rate (%)
- Requests Error Rate (%)

Click on the number for each statistic to find out more details.

The Concurrent Managers by Requests lists all concurrent managers, in order of the number of requests it has in the specified status, either Running or Pending.



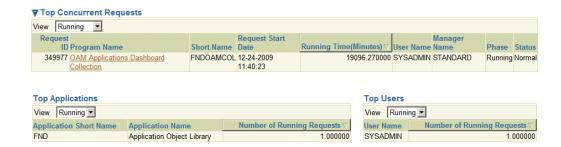
With "Running" selected, the following is shown for each concurrent manager:

- Service Name
- Service Short Name
- Application Name
- Status
- **Running Requests**
- Service Handle
- Service Target Processes
- Service Actual Processes

With "Pending" selected, the following is shown for each concurrent manager:

- Service Name
- Service Short Name

- Application Name
- Status
- Normal Pending Requests
- Standby Pending Requests
- Service Handle
- Service Target Processes
- Service Actual Processes



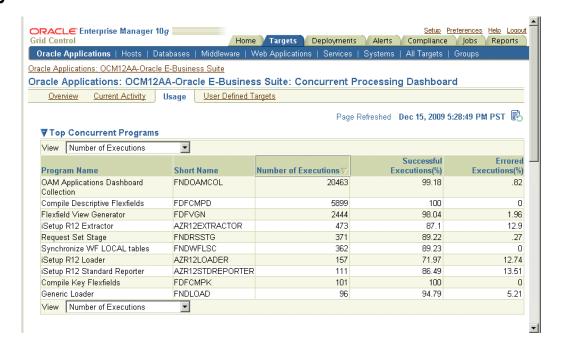
The Top Concurrent Requests region shows the top ten (10) requests for the specified status of Running, Pending, or Scheduled.

- Running These are sorted by running time in descending order.
- Pending These are sorted by running time in descending order.
- Scheduled These are sorted by their scheduled start time.

The Top Applications region lists the top ten (10) applications for running requests or pending requests, as specified.

The Top Users region lists the top ten (10) users by number of running or pending requests, as specified.

# **Usage Tab**



This tab provides a summary of how the concurrent programs and managers have been utilized over a period of time.

The top ten (10) concurrent requests for the following categories are listed:

- Number of executions For this category, the total number of executions, the percentage (%) of successful executions, and the percentage (%) of errored executions are shown.
- Number of failed executions The number of executions, percentage (%) of failed executions, and percentage (%) of errored executions are shown.
- Average run time in minutes The number of executions, average running time (minutes), and total running time (minutes) are shown.
- Total run time in minutes The top ten (10) programs with the highest maximum running time are shown. For each program listed, the number of executions, total running time (minutes) and percentage (%) of successful executions are shown.

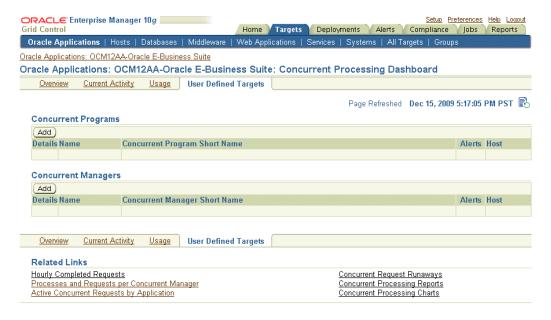


The top ten (10) applications for the following categories are listed:

- Number of executions
- Number of failed executions

The top ten (10) users by total number of requests are also listed, in descending order of number of requests.

# **User-Defined Targets Tab**



You can add concurrent managers and programs as targets to monitor. Use this tab to get details about these targets as well as add more custom targets.

#### **Concurrent Programs**

For custom concurrent program targets, the following columns are shown:

- Name
- Concurrent Program Short Name
- Alerts
- Host

Click on "Show" in the Details column to see the following metrics for the given concurrent program target. (More details can be seen from the Target home page > All Metrics):

- Number of Concurrent Requests by Status
- Number of Hourly Completed Requests
- Requests Completed with Error
- Long-Pending Requests

Long-Running Requests

Use the **Add** button under Concurrent Programs to add a new program target.

#### **Concurrent Managers**

For concurrent manager targets, the following columns are shown:

- Name
- Concurrent Manager Short Name
- Alerts
- Host

Click on "Show" in the Details column to see the following for the given concurrent manager target:

- **Active Processes**
- Running Requests
- **Pending Requests**

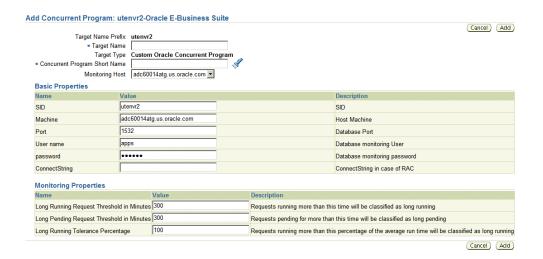
Use the **Add** button under Concurrent Managers to add a new manager target.

# **Adding a Concurrent Program Target**

You can add a concurrent program custom target so that the system will collect metrics on activity and usage for the concurrent program.

To add a concurrent program custom target, navigate to the following: System Management tab > Instance Name > Related Links, Configured Components. From the Configured Components page, select "Concurrent Program" from the dropdown list and click **Go**.

Alternatively, navigate to the Concurrent Processing Dashboard, User Defined Targets tab, and click Add under Concurrent Programs.



- **2**. For your new target, define the following:
  - Target Name Prefix This value is determined by the system based on the instance name and cannot be updated.
  - Target Name Enter in a target name "suffix". The actual target name will be composed of the Target Name Prefix (above) and the value of this field.
  - Target Type The system automatically provides the value "Custom Oracle Concurrent Program".
  - Concurrent Program Short Name Use the LOV icon to search for and select the program short name. In searching for the program name you can search by concurrent program short name, concurrent program name, or application.
  - Monitoring Host

For the Basic Properties region, values for the following should default in. These values are used as credentials by the target for metrics collection:

- SID
- Machine
- Port
- (Database) User name
- (Database) Password
- ConnectString

3. For metrics collection, you need to define the thresholds for several metrics. Define instance parameters that will be used to categorize requests for the following:

A request will be termed Long Pending if it is in Pending status for longer than the "Long Pending Request Threshold In Minutes".

A request will be considered Long Running if it runs for longer than the "Long Running Request Threshold In Minutes" and (1+0.1\*"Long Running Tolerance Percentage")\*Average Running Time of the Concurrent Program.

When you are done, click **Add** to add the target.

# **Custom Concurrent Program Target Metrics**

Once you have added a custom concurrent program target, you can monitor metrics for it.

From the main Administration Dashboard, click on Configured Components under Related Links. Your custom concurrent program target should be listed. Click on its name link to view details.



The Home tab has the following regions

- General This region lists the concurrent program target's status and its availability in the past 24 hours. It also provides a drilldown link for its host.
- Alerts
- Host Alerts
- Related Links

Click on the All Metrics link to view the metrics in the following categories: Basic Information, Concurrent Requests by Status, Hourly Completed Requests, Long Pending Requests, Long Running Requests, Pending Requests, Requests Completed with Error, Requests Completed with Warning, Response, and Running Requests.

You can expand on each category using the (+) icon to view records for each by various criteria. For example, to view running requests listed by concurrent program name, click on the (+) icon next to "Running Requests", and then click on "Concurrent Program Name".

You can also click on the category name to view metrics for all records for that category. These metrics are listed below.

#### **Basic Information**

This page lists metrics for the following:

- Requests Completed Successfully
- Requests Completed with Warnings
- Requests Completed with Errors
- Minimum Run Time
- Maximum Run Time
- Average Run Time

#### **Concurrent Requests by Status**

The numbers for requests in each status below are listed.

- Concurrent Requests Pending (Normal)
- Concurrent Requests Pending (Standby)
- Concurrent Requests Scheduled
- Concurrent Requests Inactive (No Manager)
- Concurrent Requests Inactive (On Hold)
- Concurrent Requests Running

#### **Hourly Completed Requests**

- Concurrent Requests Completed Successfully
- Concurrent Requests Completed With Warning

- Concurrent Requests With Error
- Concurrent Requests Successful Requests Rate (%)
- Concurrent Requests Warning Rate (%)
- Concurrent Requests Error Rate (%)

#### **Long Pending Requests**

- Request ID
- Concurrent Program Short Name
- Concurrent Program Name
- Request Start Date
- Username
- Phase
- Status
- Pending Time
- Concurrent Manager

### **Long Running Requests**

- Request ID
- Concurrent Program Short Name
- Concurrent Program Name
- Request Start Date
- Username
- Phase
- Status
- Running Time
- Concurrent Manager

#### **Pending Requests**

- Request ID
- Concurrent Program Short Name
- Concurrent Program Name
- Request Start Date
- Username
- Phase
- Status
- Pending Time
- Concurrent Manager

#### **Requests Completed with Error**

- Request ID
- Concurrent Program Short Name
- Concurrent Program Name
- Request Start Date
- Username
- Phase
- Status
- **Execution Time**

#### **Requests Completed with Warning**

- Request ID
- Concurrent Program Short Name
- Concurrent Program Name

- Request Start Date
- Username
- Phase
- Status
- **Execution Time**

#### **Running Requests**

- Request ID
- Concurrent Program Short Name
- Concurrent Program Name
- Request Start Date
- Username
- Phase
- Status
- Running Time
- Concurrent Manager

# **Adding a Concurrent Manager Target**

You can add a concurrent manager custom target so that the system will collect metrics on activity and usage for requests run by the concurrent manager.

To add a concurrent manager custom target, navigate as follows: System Management tab > Instance Name > Related Links, Configured Components. From the Configured Components page, select "Concurrent Manager" from the dropdown list and click Go.

Alternatively, navigate to the Concurrent Processing Dashboard, User Defined Targets tab, and click Add under Concurrent Manager.



- For your new target, define the following:
  - Target Name Prefix This value is determined by the system based on the instance name and cannot be updated.
  - Target Name Enter in a target name "suffix". The actual target name will be composed of the Target Name Prefix (above) and the value of this field.
  - Target Type The system automatically provides the value "Custom Oracle Concurrent Manager".
  - Concurrent Manager Short Name Use the LOV icon to search for and select the concurrent manager short name. In searching for the manager name you can search by concurrent manager short name, concurrent manager name, or application.
  - Monitoring Host

For the Basic Properties region, values for the following should default in. These values are used as credentials by the target for metrics collection:

- **SID**
- Machine
- Port
- (Database) User name
- (Database) Password
- ConnectString

3. For metrics collection, you need to specify values for three Instance Properties that will be used to categorize requests for the following:

A request will be termed Long Pending if it is in Pending status for longer than the "Long Pending Request Threshold In Minutes".

A request will be considered Long Running if it runs for longer than the "Long Running Request Threshold In Minutes" and (1+0.1\*"Long Running Tolerance Percentage")\*Average Running Time of the Concurrent Program.

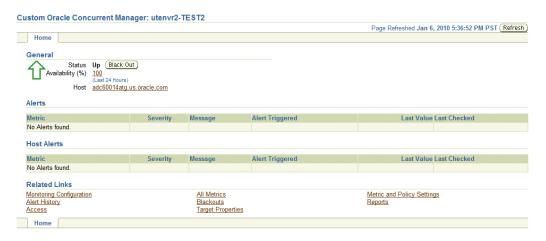
You can also change these properties by clicking the "Monitoring Configuration" link on the Target Home page.

When you are done, click **Add** to add the target.

### **Custom Concurrent Manager Target Metrics**

Once you have added a custom concurrent manager target, you can monitor metrics for it.

From the main Administration Dashboard, click on Configured Components under Related Links. Your custom concurrent manager target should be listed. Click on its name link to view details.



The Home tab has the following regions

- General This lists the concurrent manager's status and its availability in the past 24 hours. Its host is also listed with a drilldown link for it.
- Alerts
- **Host Alerts**
- Related Links

Click on the All Metrics link to view the metrics in the following categories: Active Processes, Pending Requests, Response, and Running Requests.

You can expand on each category using the (+) icon to view records for each by various criteria. For example, to view running requests listed by concurrent program name, click on the (+) icon next to "Running Requests", and then click on "Concurrent Program Name".

You can also click on the category name to view details of all records for that category. These details are listed below.

#### **Active Processes**

- Target Node
- OS Process ID
- Session ID
- **Process Status**

#### **Pending Requests**

- Request ID
- Concurrent Program Short Name
- Concurrent Program Name
- Request Start Date
- Username
- Phase
- Status
- Pending Time

#### **Running Requests**

- Request ID
- Concurrent Program Short Name
- Concurrent Program Name

- Request Start Date
- Username
- Phase
- Status
- Running Time

#### **Metric and Policy Settings**

Use the "Metric and Policy Settings" link under Related Links to view and edit the metrics collection settings. You can view metric thresholds for all metrics or just those metrics with thresholds that have been set.

### **Concurrent Processing Metrics**



This section lists the concurrent processing metrics available from the All Metrics page. Navigate to the All Metrics page from the Oracle E-Business Suite Instance Home page > All Metrics link (under Related Links).

For each type of metric below, the details listed for each record are shown.

### **Active Concurrent Requests by Application**

- Application Short Name
- Application Name

- Non-Repeating Pending Requests (Normal and Standby)
- Repeating Pending Requests (Normal and Standby)
- Non-Repeating Running Requests
- Repeating Running Requests

#### **Applications by Errored Executions**

- **Application Short Name**
- Application Name
- **Total Executions**
- **Errored Executions**
- Errored Executions (%)

# **Applications by Executions**

- **Application Short Name**
- Application Name
- **Total Executions**
- Successful Executions (%)
- Errored Executions (%)

### **Applications by Pending Requests**

- Application Short Name
- Application Name
- Number of Pending Requests

## **Applications by Running Requests**

- **Application Short Name**
- Application Name

Number of Running Requests

#### **Programs by Average Running Time**

- Concurrent Program Name
- User Concurrent Program Name
- **Total Executions**
- Average Running Time
- Maximum Running Time

# **Programs by Errored Executions**

- Concurrent Program Name
- User Concurrent Program Name
- **Total Executions**
- Total Executions (Errored)
- Executions Errored (%)

### **Programs by Executions**

- Concurrent Program Name
- User Concurrent Program Name
- **Total Executions**
- Successful Executions (%)
- Errored Executions (%)

#### **Programs by Total Running Time**

- Concurrent Program Name
- User Concurrent Program Name
- **Total Executions**

- **Total Running Time**
- Successful Executions (%)

#### **Top Pending Requests**

- Request ID
- Program Name
- Program Short Name
- Request Start Date
- Pending Time
- User Name
- Manager Name
- Phase
- Status

#### **Top Running Requests**

- Request ID
- Program Name
- Program Short Name
- Request Start Date
- Running Time
- User Name
- Manager Name
- Phase
- Status

#### **Top Scheduled Requests**

- Request ID
- Program Name
- **Program Short Name**
- Request Start Date
- Scheduled to Run In (Minutes)
- User Name
- Manager Name
- Phase
- Status

#### **Top Users (Requests Submitted)**

- User Name
- Number of Requests

### **Users by Pending Requests**

- User Name
- Number of Pending Requests

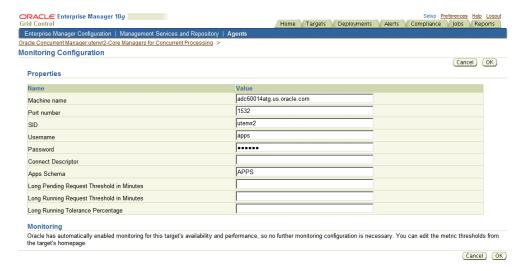
### **Users by Running Requests**

- User Name
- Number of Running Requests

## **Setting Long Running and Long Pending Requests Count Metrics and Alerts**

AMP allows you to define parameters for long running and long pending requests. Follow the procedure to do so.

1. Navigate to the following from the main Administration Dashboard: Performance tab > Concurrent Processing Dashboard > [Concurrent Manager named link] under Components > Edit Oracle Concurrent Manager (link).



- Enter in values for these fields:
  - Long Pending Request Threshold in Minutes
  - Long Running Request Threshold in Minutes
  - Long Running Tolerance Percentage

The three parameters above are instance parameters for categorizing a request as long running or long pending.

A request will be considered long pending if it is pending for more than the "Long Pending Threshold in Minutes" value.

A request will be considered long running if it runs for more than the "Long Running Request Threshold in Minutes" value AND for longer than (1 + 0.01\*[Long Running Tolerance Percentage]\*[Average Running Time of the Concurrent Program]).

After you have set these parameters, you can go to the All Metrics page to see these categories listed. Navigate to the All Metrics page from the Concurrent Processing Dashboard > All Metrics link (under Related Links).

For Long Pending Requests, the following details are available through drilling down:

- Request ID
- Concurrent Program Short Name

- Concurrent Program Name
- Request Start Date
- Username
- Phase
- Status
- Pending Time
- Concurrent Manager

For Long Running Requests, the following are available through drilling down:

- Request ID
- Concurrent Program Short Name
- Concurrent Program Name
- Request Start Date
- Username
- Phase
- Status
- **Running Time**
- Concurrent Manager

For Long Running and Long Pending Requests, you can drill down to get a count for each.

4. Under Related Links on the same All Metrics page, click on Metric and Policy Settings to edit the alert threshold for long pending and long running requests. Choose to view "All Metrics" from the View dropdown list and set the alerts count for Long Pending Requests and Long Running Requests.

# Cloning an Oracle E-Business Suite System

### Cloning an Oracle E-Business Suite System

One of the key features of the Oracle Application Management Pack for Oracle E-Business Suite is the ability to clone an Oracle E-Business Suite system automatically.

The key highlights of the cloning process include:

- The Oracle Application Management Pack for Oracle E-Business Suite allows Oracle E-Business Suite systems to be cloned via the Grid Control provisioning framework.
- A step-by-step interview is available to guide you through the cloning process.
- Grid Control automates the creation of clone systems and executes any required application-specific actions.
- You can modify the standard cloning process to include custom actions.
- You can perform the clone in "hot mode" in which the source system need not be shut down.
- Cloning of systems deployed on Oracle Real Application Clusters (RAC) is possible. Note that for Release 11i systems, only RAC-to-RAC cloning is supported. Data scrambling is not supported with RAC systems. For more information on supported scenarios, see My Oracle Support Knowledge Document 783188.1, "Certified RAC Scenarios for E-Business Suite Cloning".

For information on cloning a Release 12 system on a RAC database, see My Oracle Knowledge Document 559518.1, "Cloning Oracle E-Business Suite Release 12 RAC-Enabled Systems with Rapid Clone".

**Note:** Database tier cloning with AMP is not supported from *n* to *n* 

#### DATA\_TOP where n > 1 and $n \le 4$ ) if

- dbf filename conventions are customized (that is, not the same as that of RapidWiz)
- you are not using Smart Clone, which is described in the next chapter. Smart Clone is supported for Release 11*i* only.

#### **Terms**

The following table lists some cloning terms used in this document.

Term	Meaning
Source	Oracle E-Business Suite system being cloned.
Target	Oracle E-Business Suite system being created as a copy of the source system.
Image	Packaged copy of the source system ready for deployment to a target.
Stage	Location to store the image created from the source system.
	<b>Note:</b> This stage directory must be outside the \$COMMON_TOP/clone (for the source Applications node) or \$RDBMS_ORACLE_HOME/appsutil/clone (for the source Database node).
Scramble	Process to obfuscate or remove sensitive data.
Hot mode cloning	Cloning an applications system without shutting it down. Also referred to as "hot cloning".
Smart Clone	Smart Clone allows you to use a database target cloned using an external solution as an input to the AMP cloning procedures. See the next chapter for more information on Smart Clone.
	<b>Note:</b> Smart Clone can be used with only Release 11 <i>i</i> Oracle E-Business Suite instances.

#### **Group Membership for Cloning**

Successful cloning using a shared stage location requires that group membership be established such that the target system user(s) has group membership in the same group(s) used to create the stage or cloning image on the shared disk resource.

For example, say the source system has a user "applmgr1" with a primary group of "appldba1". There also exists a user "oracle1" with a primary group of "oradba1". In this case "applmgr1:appldba1" owns the \$APPL TOP and you have user "oracle1:oradba1" who owns the database file system on the source system.

On the source system, the EM Agent user is "agent1" with a primary group of "agentgrp1".

On the target system, you wish to have a user "applmgr2" with primary group of "applmgr2" owning the \$APPL TOP. You wish to have user "oracle2" with primary group "oradba2" owns the target database file system.

On the target system EM agent is "agent2" with a primary group of "agentgrp2".

For cloning to be successful using a shared stage area in this above scenario, the user groups will require the following memberships:

#### Source:

- applmgr1:appldba1--> no additional groups required in this scenario.
- oracle1:oradba1--> no additional groups required in this scenario.
- agent1:agentgrp1--> must add secondary memberships in groups "appldba1" and "oradba1" (if not already present). See: OS User/Group Requirement, Oracle Application Management Pack for Oracle E-Business Suite Installation Guide.

#### Target:

- applmgr2:appldba2--> must add secondary membership in group appldba1 (if not already present).
- oracle2:oradba2-->must add secondary membership in group oradba1 (if not already present).
- agent2:agentgrp2--> must add secondary memberships in groups "appldba2" and "oradba2" (if not already present). See: OS User/Group Requirement, Oracle Application Management Pack for Oracle E-Business Suite Installation Guide.

In the above example, only the target requires group membership for inclusion of those groups that created the source area on the shared stage. Without these permissions, reading of files from the shared stage will fail.

Additional cloning limitations are detailed in Known Product Limitations, page B-1.

#### **Additional Setup Steps**

- Cloning via Oracle Application Management Pack for Oracle E-Business suite requires Perl 5.005 or higher on the Oracle Enterprise Manager agent. The user who starts the agent processes must set the PERL5LIB environment variable pointing to Perl 5.005 (or higher) libraries. Also, the Perl executable 5.005 must be used.
- While upgrading the database from 9*i* to 10*g* (or 11*g*) with and Oracle E-Business Suite Release 11*i* instance, you need to ensure that the source instance perl.exe is pointed to the database 10*g* (11*g*) ORACLE\_HOME of the Oracle E-Business Suite.
- All the virtual internet protocol (VIP) addresses configured in the Oracle Cluster Ready Services (CRS) of the targets nodes identified for the created RAC instance must be up and running.
- With Release 11i, for a clone job from Single Node Single User to Single Node Multiple User, ensure that you have write permissions for user IDs to the target base directory. Give 770 permissions to the directories from/to the target base directory with the following command:

```
$ chmod -R 770 <target base directory>
```

- If for a cloning process the target is multi-node and the database node domain and the applications node domain are different, perform the following step:
  - 1. Include the target database node server name in the /etc/hosts file of the target applications node so that the applications node will be able to resolve the database node without the domain name. The modification should be like the following (this entry is for Linux x86; change as appropriate for your platform):

```
<ip-address> <Machine name with domain name> <Machine Name>
For example:
```

```
140.87.205.217 adc60002demo.us.oracle.com adc60002demo
```

**2.** For Release 12 only: In addition to the above entry in the /etc/hosts file, the applications node context file needs to be changed.

Change the s\_dbdomain entry in the <STAGE\_LOC>/appsTier/context/apps/<SID>\_<SERVER\_NAME>.xml file to the correct domain name of the database tier.

For example, if the database node domain name is idc.oracle.com, and the applications node domain name is us.oracle.com, then the context file

```
/d1/QA/stage/PMS29/080522035852/PMS29_adc60010demo.xml
```

#### should be changed to

```
<domain oa_var="s_dbdomain">idc.oracle.com</domain>
```

On the HP-PA platform with an Oracle E-Business Suite instance on a 10.2.0.x database: For a Source-to-Image or a Source-to-Target clone procedure, remove the symbolic link present inside the 10.2.0.x database ORACLE\_HOME on HP-PA:

<DB OH>/jdk/jre/lib/PA RISC/hotspot

and replace it with absolute files.

Rapid Clone does not support cloning with symbolic links.

## The Cloning Pages

Cloning can be accessed from the following pages:

- Oracle Application System Page from the Cloning link under "Related Links".
- Oracle Applications System Administration Maintenance Page from the icons corresponding to Cloning tasks in the "Maintain" column.

### **Cloning Types**

Different types of clone jobs can be performed. Click on Clone Status in the Oracle Application Maintenance page and then on the Cloning Procedures subtab to see these types.

- Clone Source to Target: In Source to Target clone job, the source system data is extracted and applied on to a target system. On completion of the clone process, the source and target systems will have the same data and patch set level. The benefit of this procedure is that it creates identical copy of production system.
- Clone Source to Image: The second category is Source to Image where the source system data is extracted and stored. The image extracted can be applied to any number of target systems. The benefit of this procedure is that it facilitates periodic backing up of the source system.
- Deploy Image to Target: The third category is Image to Target where an image is deployed on to a target system. The benefit of this procedure is that it allows for rapid deployment of standard pre-configured target systems.
- Hot Mode Clone Source to Target This procedure is similar to Clone Source to Target, above, except that the source system does not need to be shut down.
- Hot Mode Clone Source to Image This procedure is similar to Clone Source to Image, above, except that the source system does not need to be shut down.
- Hot Mode Clone Image to Target This procedure is similar to Deploy Image to Target, above.

**Note:** Customizations of the seeded cloning procedures are not supported. However, existing cloning procedures may be copied and those copies then edited. See "Custom Clone Procedure" below.

In addition to the above options, the Smart Clone procedures described in a later chapter can be used to a database target cloned using an external solution as an input.

Note: Smart Clone is supported with Release 11i Oracle E-Business Suite instances only.

#### Considerations for Hot Mode Clone Flows

In Hot Mode Clone interview flows, only archive log-enabled Release 12 instances are displayed in the List of Values (LOV) as possible sources. If an instance is discovered in OMS when its archive log is not enabled and at a later stage its archive log is enabled, that instance will not be displayed in the LOV of hot mode clone flows until this change is reflected in the OMS.

**Note:** After you turn on the archive log in OMS, you need to wait for OMS to update the configuration or you should rediscover the database component for the Oracle E-Business Suite target (only the database).

In the Deploy Image to Target flow, only "hot" images are shown in a hot mode flow and only "cold" images are shown in a cold flow. If the cloning procedure is launched from the Clone Images tab in the Cloning home page, based on the type of the image (Hot/Cold), then the Hot Mode Deploy Image to Target or Deploy Image to Target would be launched.

#### Clone Status Page

The Clone Status page can be accessed from the Oracle Applications System page or from the Oracle Applications Maintenance page.

The Clone Status page provides an enterprise-wide view of the statuses of clone jobs. This page is divided into the following sections:

- In Progress In this section you can view all the clone jobs that are currently in progress. Even though this section provides a summarized status, you can drill down to find the exact stage of progress of the clone job.
- Scheduled Clone jobs scheduled for a later point in time can be viewed here. You can create a copy of a scheduled clone job here as well.
- Saved Clone job interviews saved midway are listed in this section. You can come

back later and complete the interview process in order to start the clone job. You can also create a copy of the clone job.

**Note:** To delete a saved clone job: Click on Deployment tab. Click on Procedure Completion Status under Deployment Procedure Manager section. Select the clone operation that you wanted to delete. Run it and then click **Stop** (if not already stopped or succeeded). Select the run and click the **Delete** button.

Completed - Clone jobs that have been completed successfully or with errors are listed in this section. You can create a copy of a completed clone job to kick start a new clone.

In all the above sections, you can click Add in the "Notes" column to add comments to a specific clone job.

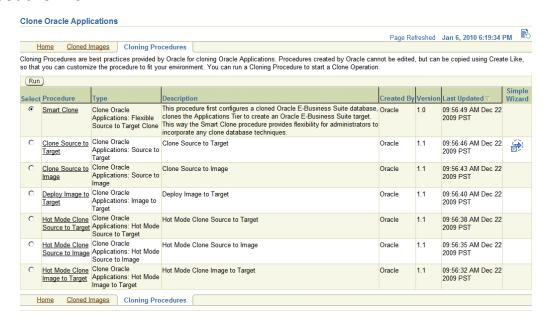
Click on Refresh icon to refresh the data. You may need to click on this icon several times to refresh the data.

#### Clone Image View



The Image View lists all the images that were created from a source system. From this page you can either deploy the images or create a new image for a source system.

#### **Clone Procedure View**



Clone Procedures are best practices provided by Oracle for cloning Oracle Applications. Clone Procedures provide a step-by-step interview process for initiating a clone job. For more information on concepts mentioned here, including configuring a Software Library and Target Systems, see the Enterprise Manager online help.

The Oracle Application Management Pack for Oracle E-Business Suite ships with the following clone procedures:

- Clone Source to Target
  - Advanced Clone: Advanced Clone is a detailed step-by-step interview process
    that allows users to configure each and every parameter in the clone process.
    Advanced Clone procedures are covered in a later section.
  - Simple Clone: Simple clone process skips the long steps provided in Advanced
    Clone by setting some defaults for some values. This allows you to create a
    clone job quickly. The Simple Clone option is available only for Source to Target
    procedure. Simple Clone procedures are covered in a later section.
- Clone Source to Image
- Deploy Image to Target
- Hot Mode Clone Source to Target
- Hot Mode Clone Source to Image

Hot Mode Image to Target

**Important:** You cannot delete or modify the default procedures. However, you can create a custom copy of the default procedure.

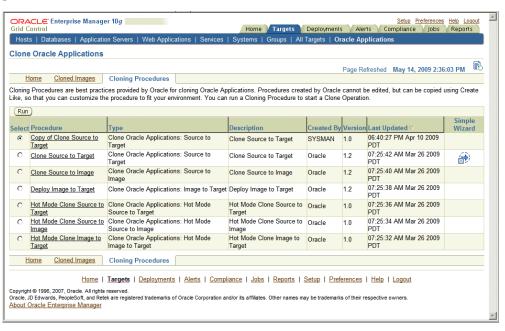
**Important:** Before starting cloning procedures for Release 12 instances ensure that "s\_base" Database Context variable is not null and its related path also exists in the "s\_db\_oh" Database Context variable.

If the s\_base value is not in the source context file or not part of the s\_db\_oh value, then these should be modified in the context file and AutoConfig should be run on the database tier so that the new value will be updated in the database.

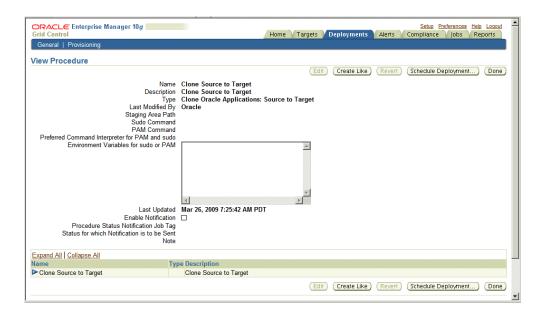
#### **Custom Clone Procedure**

To create a custom clone procedure, follow these steps:

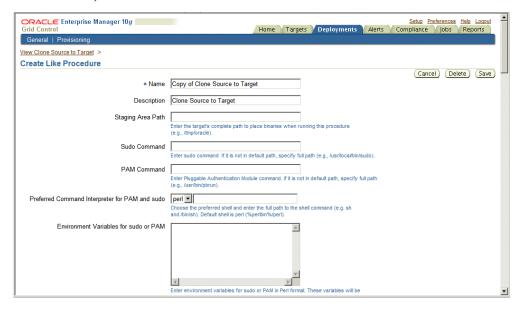
Select a default procedure from the Clone Procedure view by clicking on the procedure name.



Click on the Create Like button.



Enter a unique name and fill in the relevant details. Click Save to create a new custom clone job.



The details that need to be entered are:

- Name Enter a unique name to identify this custom clone job. (Required)
- Description Enter a short description about the clone job.
- Staging Area Path Enter the path where the binaries would be placed for running the procedure.

- Sudo Command Enter the sudo command. (For UNIX platforms only. See the Enterprise Manager online help or the UNIX sudo man page for more information.)
- PAM Command Enter the PAM command. (For UNIX platforms only. See the Enterprise Manager online help for more information.)
- Environment Variables for sudo or PAM
- Enable Notification Check this box if you want to be notified about the status of the clone job.
- Procedure Status Notification Job Tag Enter a job tag that will be pre-pended to the notification job name that would be created for this clone job.
- Status for which Notification is to be sent Choose the status for which you need to be notified.

The table at the bottom of the page lists the possible tasks to be performed by clone job in chronological order. You can:

- Enable a step
- Disable a step
- Insert a custom step
- Delete a step
- Edit a step

For each step you can specify the Run Privilege and the Error Handling Mode. Click Save and the custom clone procedure is created. You can then access this new custom clone job from the Clone Procedure view.

### Clone Source to Target - Advanced Cloning

In a Source to Target clone job, the source system data is extracted and applied on to a target system. Upon completion of the clone process, the source and target systems will have the same data and patchset level. The benefit of this procedure is that it creates an identical copy of production system.

The advanced clone can be initiated from the following pages:

- Clone Status Page, by selecting "Clone Source to Target" from the "Start a Clone" list.
- Clone Procedure View, by selecting "Clone Source to Target" line in the Procedure

view.

#### To perform an advanced clone procedure:

Enter general clone information.



Enter the name of the clone run and a brief description, along with the job priority. Only the Clone Name is required.



2.

Select source and target systems.

Select a source system, enter the target system details, and choose the target port pool. Note that the source database must be running at this point. You have a choice to clone either the entire system, the database tier, or the application tier.

- Database Node Choose this option to clone the complete database node; that is, the database and the database technology stack.
  - Technology Stack: You can choose this option to clone the database technology stack only.
  - Database: You can choose this option to clone the database (data tops) only. The database component, in particular, has a dependency on the database technology stack, so it should not be applied without an existing database technology stack on the target.
- Application Node You can choose this option to clone the complete Application Node, that is, the APPL\_TOP and the application technology stack.
  - Technology Stack: Choose this option to clone the application technology stack only.
  - APPL\_TOP: Choose this option to clone the APPL\_TOP (appl tops) only. Like the database clone above, cloning only the APPL\_TOP requires that an applications technology stack already be in place on the target.

**Note:** In the Components Selection section for hot clone mode flows (for non-RAC source instances), you can select only the following components

- **Application System**
- Database Node
- **Application Node**

The subcomponents selection is disabled.

For cloning the application node only (or application technology stack or \$APPL TOP), you must ensure that whichever database node is to be referenced as the database to be used for the new \$APPL\_TOP/Application Node is specified during the Clone Automation UI interview process for the application node (or application technology stack or APPL\_TOP). This database node must also be up and running at the time of the clone flow submission.

**Note:** For RAC source instances, the Target Applications System name (Global or Service name) must have 7 or fewer characters. The node number will be appended to this name for the SIDs of the individual nodes that will be displayed in the Specify Database Node Details Page. The character limitation is due to the fact that

the SID string must not be more than 8 characters.

For example, for a 3-node RAC system:

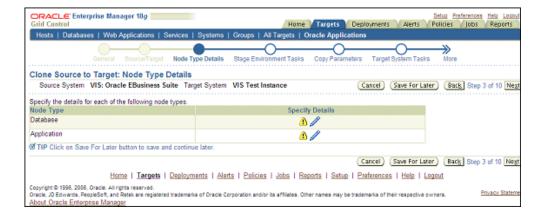
```
Target Applications System Name - GLBNAME
SID for Node1 - GLBNAME1
SID for Node2 - GLBNAME2
SID for Node3 - GLBNAME3
```

**Note:** If the source instance has a RAC database, only the entire application system should be selected. Selecting other options and proceeding will result in a validation error.

3. Specify node type details.

During this step you will specify the details for the target database and application nodes.

**Note:** For RAC instances, you can select any of the source nodes listed in the Source System Nodes list and that node name will be displayed in the "Source Node" column of the Target System Nodes.



Specify database node details. Note that what you have specified for your source system node determines what you can enter for the target system nodes.

> **Important:** If you are cloning a RAC instance for Release 12, you cannot scale up or down.

Specify the following information for the target database.

Target host name

- Port The port value defaults in. You can change this value, but the port value for all target nodes must be the same.
- SID This value defaults in and cannot be changed.

**Note:** For an individual node for a RAC instance, the SID is the Target Application System name with the node number appended to it.

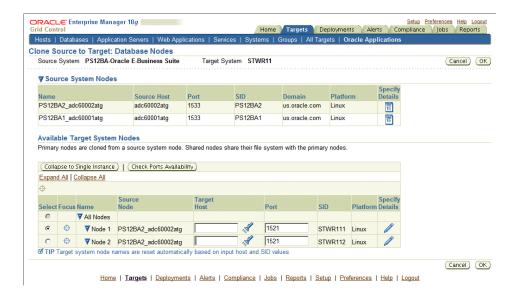
You have the option to specify further details as well.

Also in this page you have the option to add nodes in addition to the primary one.

You can use the **Collapse to Single Instance** button to clone a RAC instance to a non-RAC instance.

> **Note:** You can clone a 2-node RAC source instance to a single non-RAC instance. You cannot clone a 2-node RAC instance to a single-node RAC instance.

**Note:** If you choose Collapse to Single Instance, the page shows the same fields as for a non-RAC target system. The SID for the target system node is the Target Application System name entered earlier.



**Note:** For RAC target system nodes, ensure that you enter the Cluster InterConnects and Virtual host names correctly.

Specify target database node details such as the mount points for the data files.

Note that in the case where the source application system's database files reside in multiple mount points/directories, it is important that they be mapped to the clone target as well. You can refer to the Database Context file variables " s\_dbhome" (1-4) in order to synchronize the target database file mount point configuration with the source.

For example, consider this structure in the Database context file:

```
<db sysfiles
oa_var="s_dbhome1">/d10/oracle/VIS/db/apps_st/data_sys</db_sysfil
es>
<db logfiles
oa var="s dbhome2">/d10/oracle/VIS/db/apps st/data log</db logfil
<db datfiles
oa var="s dbhome3">/d10/oracle/VIS/db/apps st/data dat</db datfil
es>
<db ndxfiles
oa_var="s_dbhome4">/d10/oracle/VIS/db/apps_st/data_ndx</db_ndxfil
```

The Database Files Mount Point(s) inputs would be as follows:

#### APPL TOP Mount Point(s)

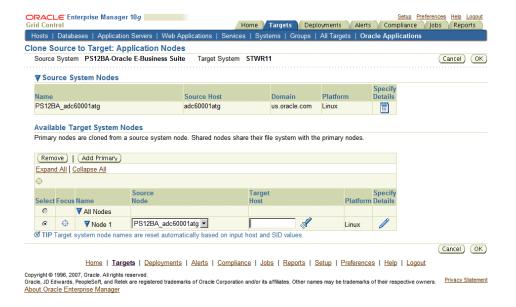
Mount Point	Value
APPL_TOP mount point	/d10/oracle/VIS/apps/apps_st/data_sys
Auxiliary mount point 2	/d10/oracle/VIS/apps/apps_st/data_log
Auxiliary mount point 3	/d10/oracle/VIS/apps/apps_st/data_dat
Auxiliary mount point 4	/d10/oracle/VIS/apps/apps_st/data_ndx

**Important:** For RAC target systems, the Port value should be the same for all the database nodes.

#### 2. Specify application node details.



Specify the target system node details for the application node. In this page you have options to add nodes in addition to the primary one.



Note: This type of cloning flow does not support multi-node applications tier cloning.

Click the icon corresponding to each application tier node to enter the details. You can specify target application node details such as the COMMON\_TOP locations and other details.

Scroll down the page to enter information in the Ports section.

#### **Ports** Select the port pool number to populate the ports that you want to use on the target system. Port Pool 0 T Check Availability Port Values In most cases, the Active Web Port will be the same as the Web Port ■ Data Port 9100 ■ Java AJP Port Range for the Forms Oracle Container 22000-22004 ■ Java AJP F ■ Java AJP Port Range for the OaCore Oracle Container 21500-21504 ■ Java AJP P ■ Java JMS Port Range for the Forms Oracle Container ■ Java JMS F 23500-23504 ■ Java JMS Port Range for the OaCore Oracle Container 23000-23004 Java JMS P ■ Java Object Cache Port 12345 ■ Java RMI P ■ Java RMI Port Range for the Home Oracle Container ■ Java RMI Po 21000-21004 ■ Java RMI Port Range for the OAFM Oracle Container 25500-25504 ■ Metrics Server Request Port l9200 ■ MSCA Server Port Number 10200-10200 ■ ONS Remote Port 6200 ■ RPC Port I1626 ■ Web SSL Port 4443 ■ Forms Port 9000 ■ Java AJP Port Range for the Home Oracle Container 22500-22504 ■ Java AJP Port Range for the OAFM Oracle Container 25000-25004 ■ Java JMS Port Range for the Home Oracle Container 24000-24004 ■ Java JMS Port Range for the OAFM Oracle Container 24500-24504 ■ Java RMI Port Range for the Forms Oracle Container 20500-20504 ■ Java RMI Port Range for the OaCore Oracle Container 20000-20004 JTF Fulfillment Server Port |9300 MSCA Dispatcher Port Number |10800 ■ ONS Local Port 6100

**Note:** With Release 11*i* instances, the default Port Pool value shown is '0' and is dependent on the value of "s\_port\_pool" in

■ ONS Request Port

■ Web Port

6500

18000

the source applications context file. To change the value shown by default, change the value of "s\_port\_pool" in the source applications context file.

**Note:** Clarification: The Data Port listed in the Port Values section is not the same as the database listener port which was specified earlier in the Database Node Details. Instead, this "Data Port" refers to the Forms Metrics Server Data Port. This ambiguity is resolved in Oracle E-Business Suite Release 12.0.4.

#### Configure data scrambling (Optional).

Configuring data scrambling is an optional step. In this step you can specify the data scrambling options required to remove sensitive data from the source system. Also, you can specify where the interim stage environment should be for scrambling. If data scrambling is not enabled, this step will be skipped.

See Data Scrambling, page 9-2 for more information.

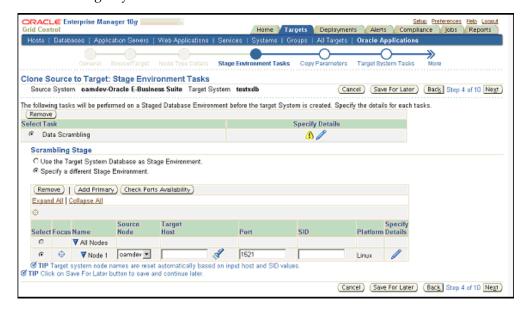
**Note:** Data scrambling is not supported for RAC systems.



Click the "Specify Details" icon corresponding to Data Scrambling to select the Policy Set and other details. Click **OK** to save the details and go to the previous page.



Under "Scrambling Stage", select the "Use the Target System Database as Stage Environment" option if you want the target system database to be used as the interim database where scrambling should be performed. Additionally, if you would like to specify a separate stage environment you can choose the "Specify a Different Stage Environment" option. This option will create a separate interim database where scrambling is performed. The interim database is then cloned to create the target system database.



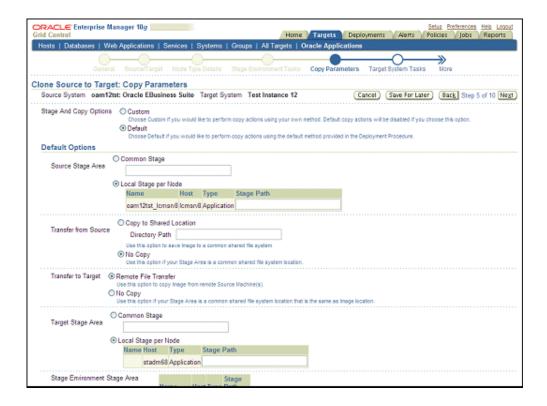
Specify clone staging options (Copy Parameters).

Cloning using the Oracle Application Management Pack for Oracle E-Business Suite requires that the source environment be prepared for the cloning process into a stage area. This step allows you to specify the details for the stage, such as its location and method of transfer to the target system.

**Note:** The stage directory must be outside the

\$COMMON\_TOP/clone (for source Applications node) or \$RDBMS\_ORACLE\_HOME/appsutil/clone (for source Database node).

**Note:** For hot mode cloning, the file mounting options for the stage directory must comply with RMAN recommendations for a Source or Target that has a RAC database on NFS storage.



The following are some definitions for terms used.

- Source Stage Area or Target Stage Area
  - Common Stage: Both Database and Application Nodes are staged in the specified location.
  - Local Stage per Node: Database and Application Nodes each have separate staging areas.
- Transfer from Source
  - Copy to Shared Location: Allows you to copy the stage area at the location specified in "Source Stage Area" to a shared directory location, specified in

"Directory Path" (for example, an NFS mounted location visible across both source and target nodes). Using this option allows the process of creating the stage itself, which is file I/O intensive due to heavy use of zip compression, to occur on a local file system for better performance. Once the I/O intensive operations are complete, the stage area is then copied to the shared file system.

No Copy: Must be selected if the stage location is not shared.

#### Transfer to Target

- Remote File Transfer: Must be specified when the stage area is not shared between source and destination systems.
- No Copy: This option is used when the staging area is either shared or when the source and target Oracle E-Business Suite systems are on the same machine.

Some example scenarios are given below. For each scenario specified, the options selected are in this order: Source Stage Area > Transfer from Source > Transfer to Target > Target Stage Area.

1. User chooses to create a local stage and then copy it to a shared location which is an NFS mounted location visible across both source and target nodes.

Common Stage  $\rightarrow$  Copy to Shared Location  $\rightarrow$  No Copy  $\rightarrow$  Common Stage OR

Local Stage per Node  $\rightarrow$  Copy to Shared Location  $\rightarrow$  No Copy  $\rightarrow$  Local Stage per Node

For best use of this option, User can set target stage location, specified in " Common stage"or "Local Stage per Node", to the location same as that of "Copy to Shared Location", which is an NFS-mounted location visible across both source and target nodes.

2. User chooses to create the stage at an NFS-mounted location, which is visible across both source and target nodes.

Common Stage → No Copy → No Copy → Common Stage OR

Local Stage per Node → No Copy → No Copy → Local Stage per Node Stage location must be an NFS mounted location, which is visible across both

source and target nodes, for both "Common Stage" and "Local Stage per Node" options.

3. User chooses to have the stage created in a location, which is not visible to

target nodes. This stage is then transferred over the network via secure agent communications to the target node.

Common Stage → No Copy → Remote File Transfer → Common Stage OR

Local Stage per Node  $\rightarrow$  No Copy  $\rightarrow$  Remote File Transfer  $\rightarrow$  Local Stage per Node

4. User chooses to save an image copy to a shared location after having selected the "Clone Source to Target" cloning flow. (Just to store an image backup on the shared location.)

Common Stage  $\rightarrow$  Copy to Shared Location  $\rightarrow$  Remote File Transfer  $\rightarrow$ Common Stage

OR

Local Stage per Node  $\rightarrow$  Copy to Shared Location  $\rightarrow$  Remote File Transfer  $\rightarrow$ Local Stage per Node

> **Note:** The extra copy operation in this flow will affect the performance for this flow.

Specify final system tasks.

Choose the finishing tasks that need to be performed on the target system after the image has been deployed. The selected Product Setup programs are run automatically as part of the clone operation. The Data Purge programs can be scheduled at the end of the clone operation. Similarly, the diagnostic tests for the selected products under the Check List can be executed at the end of the clone operation. (Refer to Monitoring a Clone Operation/Manual Finishing Tasks, page 6-45 for the detailed steps).

7. Enter Custom Properties (Optional).

If you have any custom jobs, then you can enter the custom parameters for these jobs.

**8**. Specify source and target authentication information.

Specify the credentials for the clone process to access the source system and to set the credentials for the target system.

> **Note:** The APPS schema password on the target system must be set the same as that on the source system. There is currently no way of changing the APPS schema password on the target during the clone procedure.

Schedule the clone job.

The clone job can either be run immediately after the final review and submission or it may be deferred to some later time.

10. Review the clone job details.

Review the clone job details and ensure the information is correct. Submit the clone job by clicking **Finish**.

### Clone Source to Target - Simple Cloning

Simple cloning (also referred to as simple clone) is a three-step process (unlike the ten-step process of advanced cloning) to create an exact clone of the source system. Simple clone is very beneficial while creating mirror copies of the source system for high availability.

The simple clone can be initiated from:

- Clone Status Page By selecting "Simple Clone Source to Target" from the "Start a Clone" list.
- Clone Procedure View By clicking the icon under the Simple Wizard column corresponding to "Clone Source to Target" row in the Procedure view.

The following are required in order to perform a Simple Source to Target clone operation.

A shared common stage directory that is accessible from the source and target system machines.

> **Note:** This stage directory must be outside the \$COMMON\_TOP/clone (for the source applications node) or \$RDBMS ORACLE HOME/appsutil/clone (for the source database node).

- For Release 11i, the source system should have at least one Applications node that supports all of Administration, Concurrent Processing, Forms and Web.
- The OS username and group for the database and applications node must be the same on the target system as on the source system.

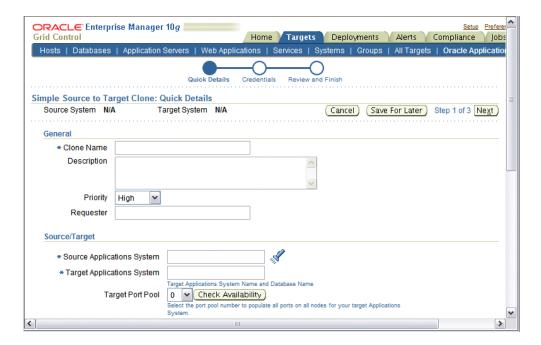
Follow these steps to perform the Simple Source to Target clone operation

- 1. Specify these details:
  - Clone name and details.

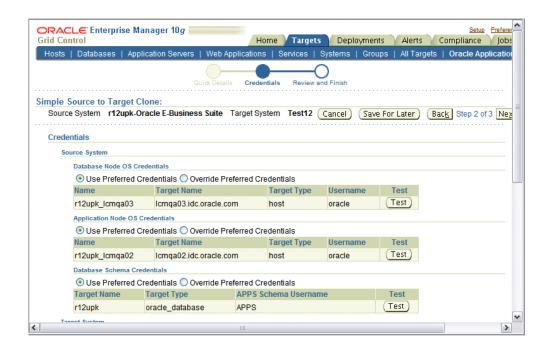
- Source and target details.
- Node (database and application) information.
- Stage directory (this must be a shared directory accessible from the source and target system machines).

**Note:** This stage directory must be outside the \$COMMON\_TOP/clone (for the source applications node) or \$RDBMS\_ORACLE\_HOME/appsutil/clone (for the source database node).

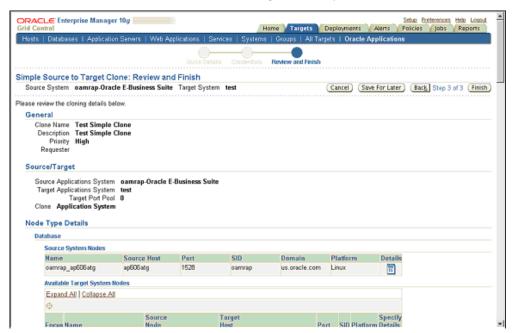
Schedule.



Specify the credentials needed for clone job to access the source system. Also to be specified are the target system credentials. A test button is available for testing these credentials.



Review the details entered before submitting the clone job.



### Clone Source to Image

Clone Source to Image can be used to create an image or backup of a source Oracle Applications system. The image is registered with Enterprise Manager and can be later used to create a target system using the Deploy Image to Target flow (See: Deploy

Image to Target, page 6-38).

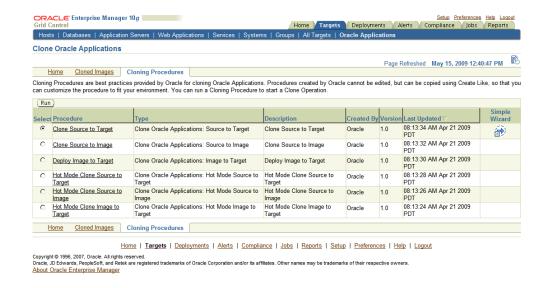
**Note:** When performing a Source to Image clone operation on a source system with multiple applications nodes that share the file system, select only a single application node to be included in the image.

A Clone Source to Image operation can be invoked from the following places:

From the Clone Oracle Applications home page, select "Clone Source to Image" from the "Start a Clone" list.



From the Cloning Procedures tab, select "Clone Source to Image" and click the Run button.



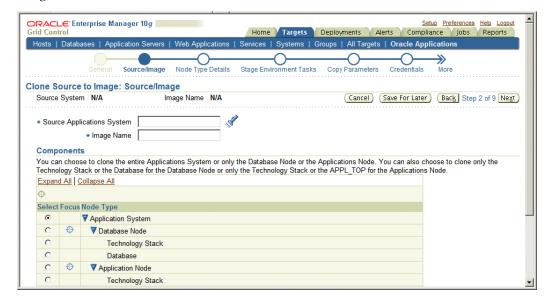
From the "Cloned Images" tab, click the **Clone Source to Image** button.



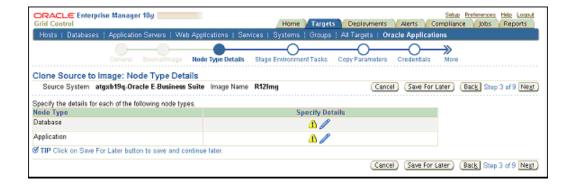
After launching the wizard, specify the clone operation details in the "General" step.



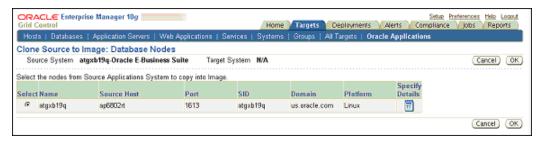
In the "Source/Image" step, select the source Oracle Applications system. Also specify a name for the image and select the component that you would like to be included in the image.



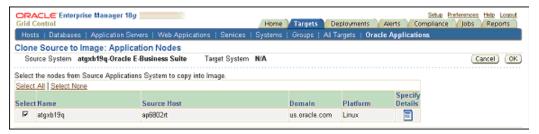
From the "Node Type Details" step, select the nodes to be included in the image for database and application node types.



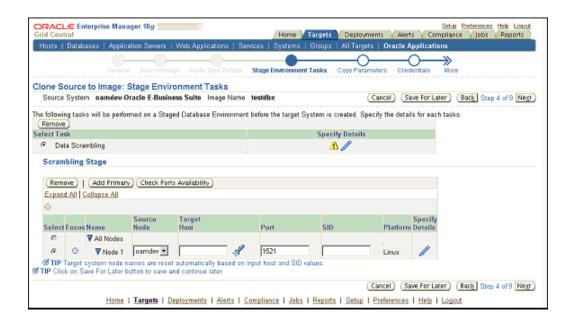
For the database node type, select the database node to be included in the image.



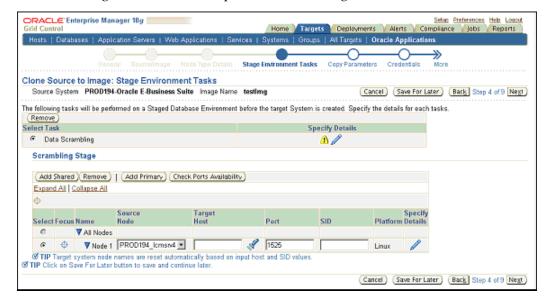
Similarly, for the application node type, select the application nodes to be included in the image.



In the "Stage Environment Tasks" step, specify data scrambling-related information, if required. If data scrambling is not enabled, this step will be skipped (Refer to Data Scrambling, page 9-2 on how to enable data scrambling). Click on the "Specify Details" icon for the "Data Scrambling" task in order to specify the related details such as the policy set to be used for scrambling.



If you choose to run data scrambling during a Source to Image operation, you must also specify details for a stage environment database where scrambling will be executed. An interim database will be cloned from the source to the specified stage environment and scrambling executed on this database. Upon completion of scrambling, the interim database is staged and included as part of the final image.



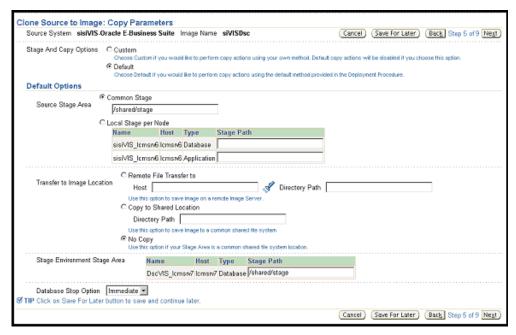
In the "Copy Parameters" step, specify the stage area location and file transfer options for creating the image.

**Note:** The stage directory must be outside the \$COMMON\_TOP/clone (for source Applications node) or

\$RDBMS\_ORACLE\_HOME/appsutil/clone (for the source database node).

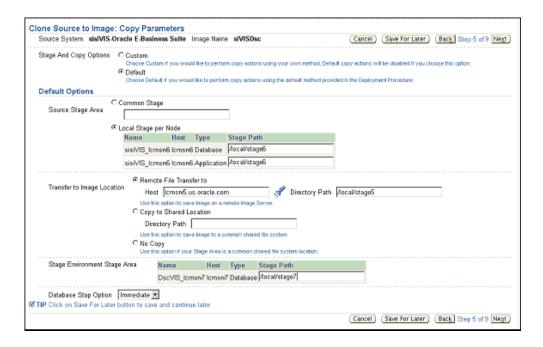
If you would like the image to be staged directly to a shared file system image directory (the image directory must be accessible from the source system nodes and also from the stage environment if scrambling is enabled), you can specify the shared image directory location in the Common Stage location field, and select "No Copy" for "Transfer to Image Location".

Also, if you have enabled scrambling, specify the same shared image directory location in the "Stage Path" field for the Stage Environment Stage Area.

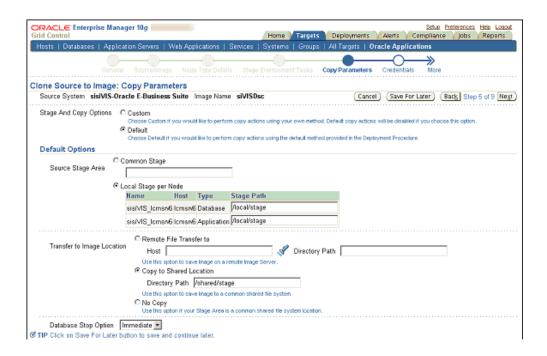


If the image storage file system is not accessible from the source system nodes, you can specify local stage directories for each source system node and select "Remote file transfer to" option for "Transfer to Image Location". Specify a host with access to the image storage file system and the directory path where the image should be stored.

If scrambling is enabled, also specify a Stage Path for the Stage Environment Stage Area.

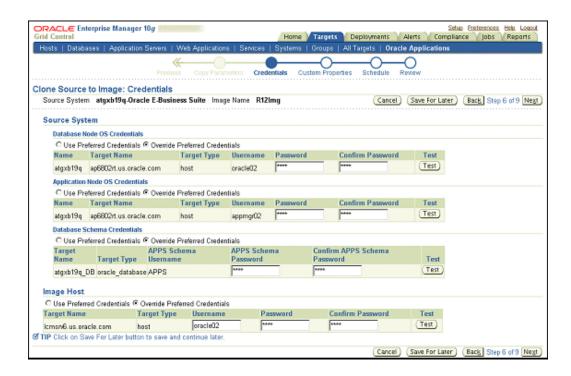


If you are not using data scrambling, you can specify local stage directories per node and copy to a shared location to store the image (all source system nodes must have access to the shared location) by choosing the "Copy to Shared Location" option for "Transfer to Image Location".

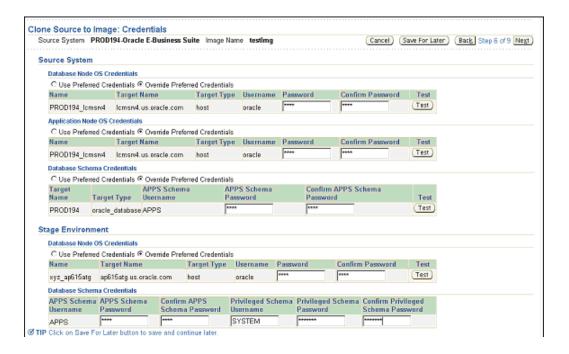


**Note:** For instances where the source or target has a RAC database on NFS storage, you should ensured that the file mounting options for the stage directory comply with by RMAN recommendations.

In the "Credentials" step, specify the OS and APPS schema credentials for the source system. Additionally, you may also need to specify OS credentials for the image host. Click the **Test** button for each credential to ensure that it is valid.

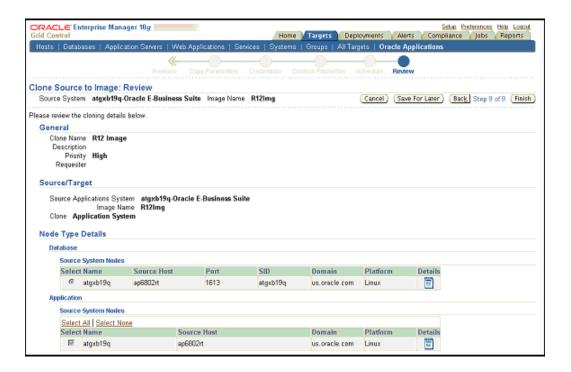


If you are using data scrambling, you need to specify the OS, APPS schema, and the privileged schema credentials for the stage environment database. The privileged schema should have a "RESTRICTED ACCESS" privilege. You can also use the SYSTEM schema as the privileged schema for scrambling.



In the "Schedule" step, specify if you would like the clone operation to execute immediately or at a later time.

Finally, review the cloning details information and click Finish to submit the clone operation. Alternatively, click the Save For Later button to save the information and submit the operation later.



## **Deploy Image to Target**

Deploy Image to Target can be used to create a cloned Oracle Applications system from an image created by a Clone Source to Image operation.

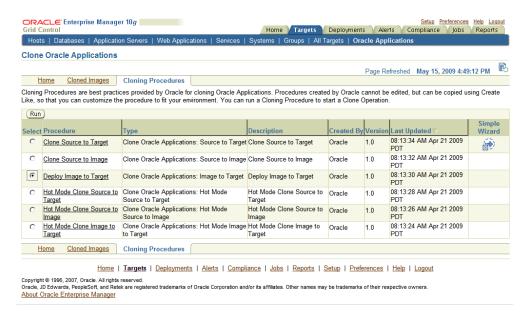
Please read Group Membership for Cloning, page 6-3 for important information on group membership.

A Deploy Image to Target operation can be invoked from the following:

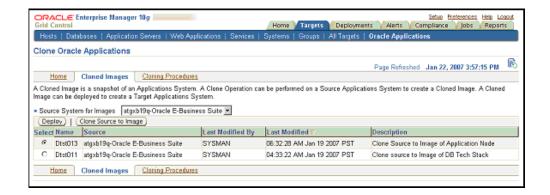
• From the "Clone Oracle Applications" home page, select "Deploy Image to Target" from the "Start a Clone" list.



From the "Cloning Procedures" view, select "Deploy Image to Target" and click the Run button.

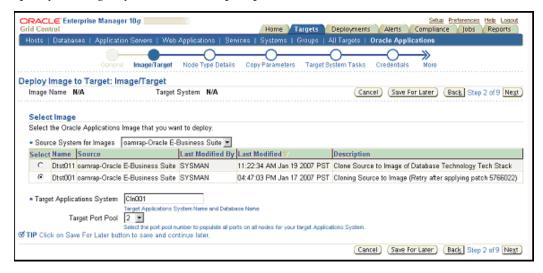


From the "Cloned Image" view, select an image and click the **Deploy** button.



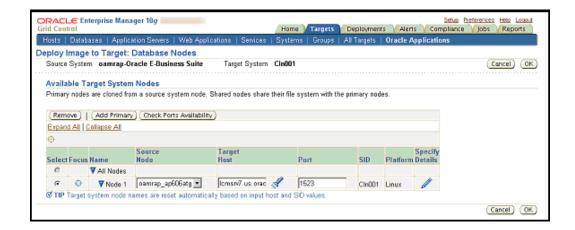
After launching the wizard, specify the clone operation details in the "General" step.

In the "Image/Target" step, select the Image from which you would like to clone. Also specify the target system name and port pool value.

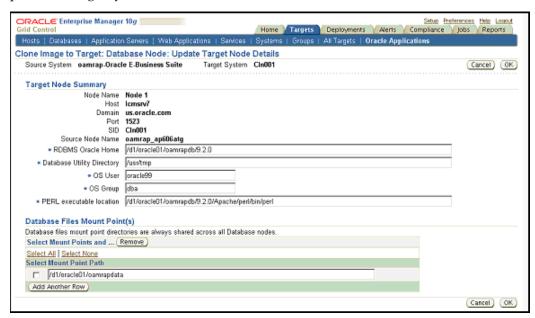


On the "Node Type Details" page, specify the target system details for Database and Application node types.

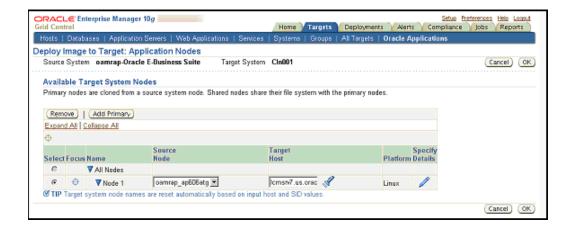
For the database node type, specify the target system database host.



Click on the "Specify Details" icon to provide and review additional details about a particular target system database node.

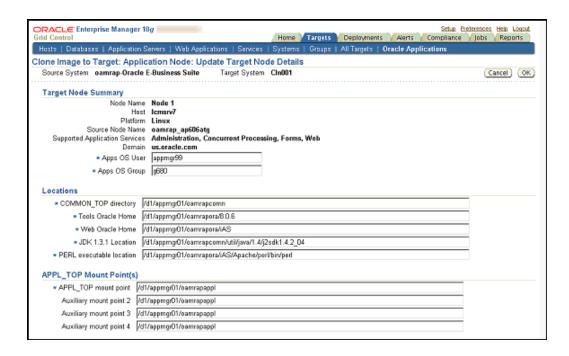


Note: The Add Primary and Add Shared buttons are reserved for future use.



For each application node, click on the "Specify Details" icon to update the node details such as the OS user and group, directory locations, APPL\_TOP mount points, services, and ports.

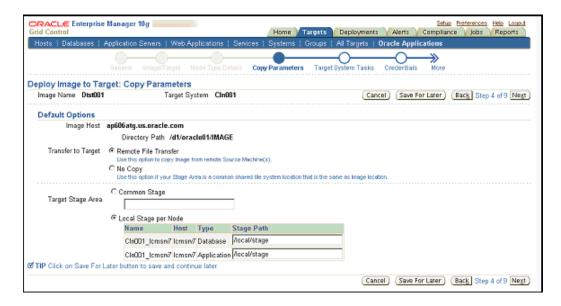
**Note:** Ensure that you enter the correct OS User name for the Applications tier before submitting your clone request.



In the "Copy Parameters" step, specify the file transfer mechanism and stage directory for the target system.

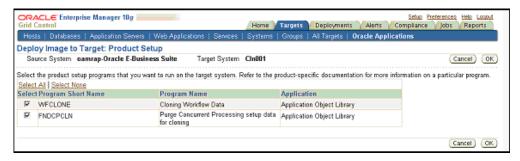
- Choose "Remote File Transfer" if the image location is not accessible from the target system nodes.
- If the image location is accessible from all the target system nodes, select "No Copy"

for "Transfer to Target" and specify the "Common Stage" directory as the directory path of the image.

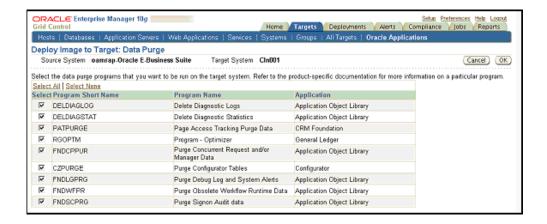


In the Target System Tasks step, select the tasks to be performed on the target system. For each task, specify the details.

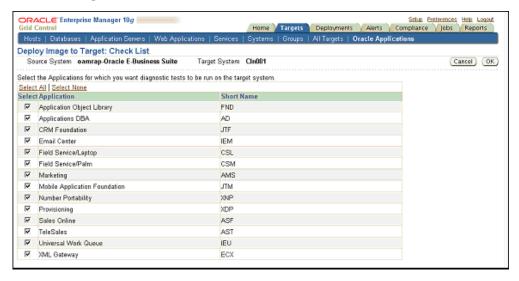
For the Product Setup task, select the product setup programs to be run during the clone operation.



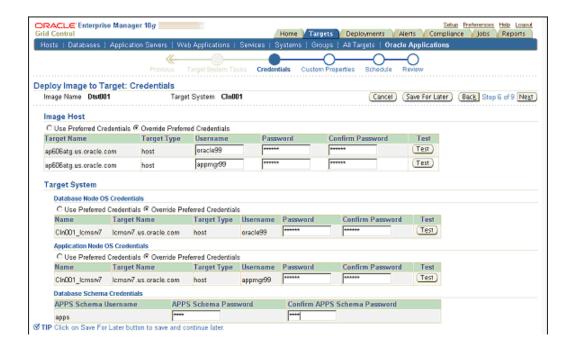
For the Data Purge task, select the purge programs to be scheduled upon completion of the clone operation.



For the check list, select products for which to run diagnostic tests upon completion
of the clone operation.

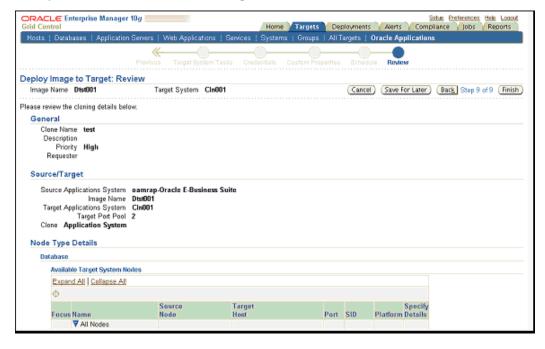


In the "Credentials" step, specify the OS and APPS schema credentials for the target system. You may also need to specify credentials for the machine from which image needs to be transferred. Use the **Test** button to test the credentials to make sure they are valid.



In the "Schedule" step, specify if you want to execute the clone operation immediately or at a later time.

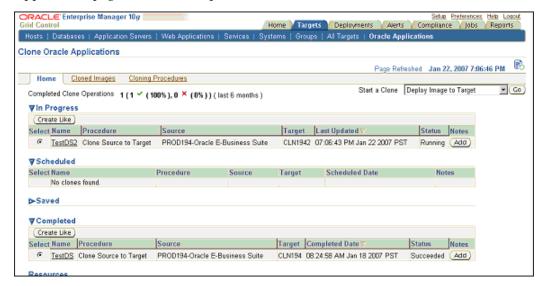
Finally, review and submit the clone operation.



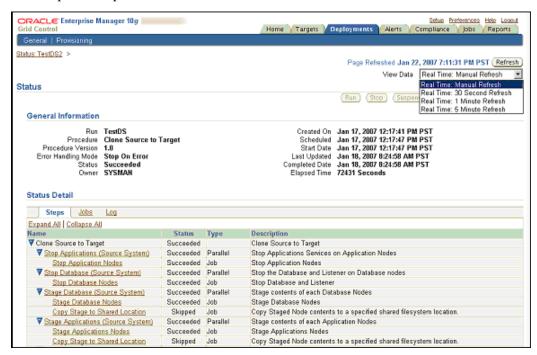
### Monitoring a Clone Operation / Manual Finishing Tasks

After submitting a clone operation, you will see the operation on the Clone Oracle

Applications page. Click on the operation name to view the status details.



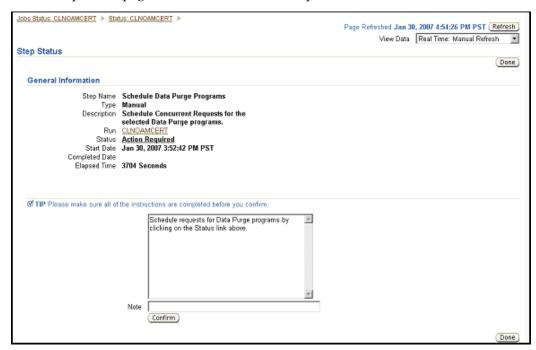
On the Status Details page select the view option to monitor the status of the clone operation. You can also switch to the Jobs view to drill into the status and output of each step of the operation.



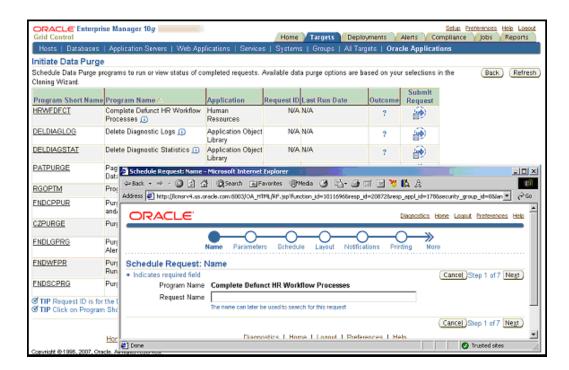
To perform the "Schedule Data Purge Programs" manual task at the end of the clone operation, click on the step name for the manual task.



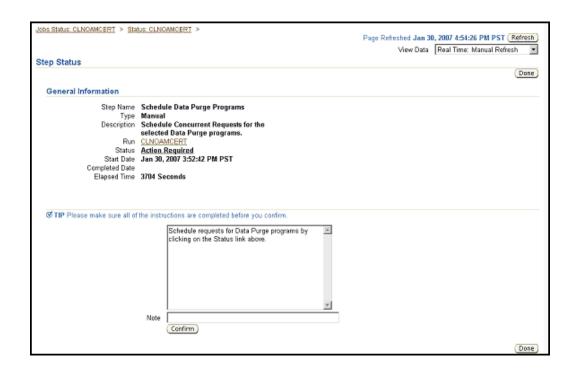
On the Step Status page, select the "Status" link to perform the manual task.



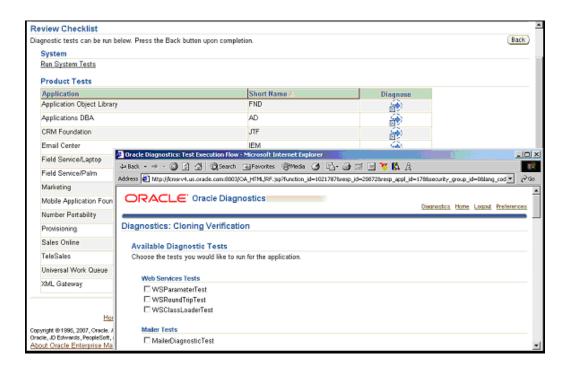
On the Initiate Data Purge page, click the "Submit Request" icon to schedule a request for each of the selected data purge concurrent programs.



After completion of this task, click the Back button to go back to the Step Status page. Click the Confirm button to indicate that the "Schedule Data Purge Programs" step has been completed and to move to the next step. Click **Done** to go back to the Status page.



Follow similar steps to those above to navigate to the Review Checklist page in order to perform the "Run Diagnostics Tests" task. Select the "Diagnose" icon to run diagnostic tests for the selected products.

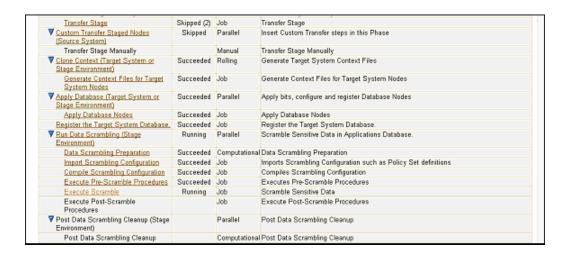


After completion of this task, click the **Back** button to go back to the Step Status page and click on the **Confirm** button to indicate that the "Run Diagnostics Tests" task is completed. At this point your clone operation should be complete.

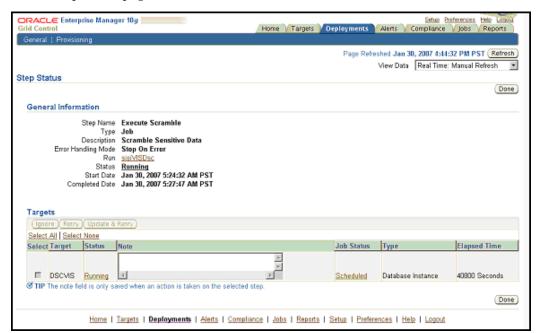
#### **Monitoring Data Scrambling**

If you have enabled data scrambling for a Source to Target or Source to Image clone operation, you can also monitor its progress during the scrambling execution. On the Clone Oracle Applications page, click on the running clone operation.

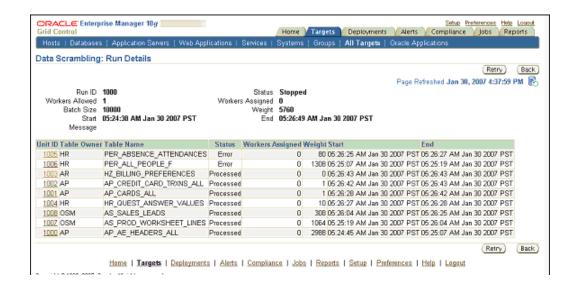
On the Status page, click on the "Execute Scrambling" step once it has started running.



On the Step Status page, click on the Status link.



On the Data Scrambling: Run Details page, review the scrambling status details. Click on the Unit ID link to view the details of work completed for each unit. You can also click on **Retry** to retry a stopped scrambling execution process.



Review the unit details and click on the **Back** button to go to the previous page.



# **Using Smart Clone**

#### **Overview of Smart Clone**

Smart Clone allows you to use the database target cloned using external third-party solutions as an input to the AMP's Smart Clone deployment procedures. AMP's Smart Clone procedures would take this input to configure a database target and then clone the applications tier of the source instance and then apply that to the target Oracle E-Business Suite system.

Smart Clone is supported for Release 11i instances only. With Release 11i instances the following is supported:

- Configure the single instance database
- Configure the RAC database
- Clone a single-node applications tier to a single-node applications tier
- Scale-down cloning of a multi-tier applications tier with a shared file system node to a single-node applications tier
- Scale-down cloning of a multi-tier applications tier without a shared file system node to a single-node applications tier

### Cloning a Single-node Applications Tier to a Single-node Applications Tier using Smart Clone

This section describes the Smart Clone procedure to clone a source Oracle E-Business Suite instance having a single-node applications tier to a target Oracle E-Business Suite instance having a single-node applications tier.

Navigate to the Cloning home page. Select Smart Clone from the list and click **Go**.

Note that there is an assumption here that you have already cloned the source database to a target database using EM DB Provisioning or another technology.



Oracle Applications   Hosts   Datab	bases   Middleware	Web Applications   S	ervices   System	s   Groups   All T	argets				
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Job Details									
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Target Database Details  * Select Target Database		A							
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System Schema Password		7							
■ TNS admin directory									
	alidate Database	a directory where your targ	et database listener o	onfigurations are picker	1 from				
Components									
The following components of the applic	ation node will be clor	ned.							
Node Type									
▼ Application Node									
Technology Stack APPL TOP									
7412_101									

In the General page, enter the following under Job Details:

- Clone Name The Clone Transaction name.
- Source Application System Use the LOV to pick the source Oracle E-Business Suite instance. Note that because Smart Clone supports cloning with Release 11i instances only, only Release 11*i* instances are listed in the LOV.

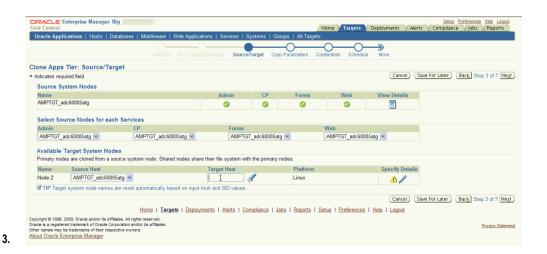
Under Target Database Details, enter the following:

2.

- Select Target Database Pick the target database that is already cloned using the external tools and now needs to be configured as an Oracle E-Business Suite database.
- Apps Schema Username
- Apps Schema Password
- System Schema Password The target database system password.
- TNS admin directory Enter the TNS admin directory that is currently used by the Target Database Listener. This input text box will appear only if the database is of the type Single Database.

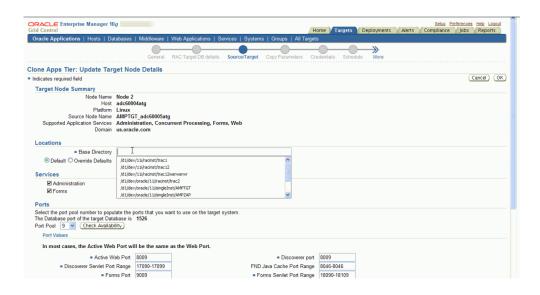
Use the **Validate Database** button to validate the target database.

**Note:** If the input Target Database is created having the TNS admin directory at <RDBMS\_ORACLE\_HOME>/network/admin/<DIRECTORY\_NAM</pre> E> (where <DIRECTORY\_NAME> is an arbitrary name, and not <CONTEXT\_NAME>) then the execution of the Smart Clone Deployment procedure might fail at the Step "Stop Target Database Listener". This error can safely be ignored and you can move forward to the next step.



In the Source/Target page, use the LOV to define the host where the applications tier needs to be deployed.

Click on the Specify Details icon to enter in other details about the target system.



In the Update Target Node Details page, enter the following under Locations:

- Base Directory Enter the base directory for the applications tier.
- Override Defaults (Optional) Use this option to override the default directories if you wish. Ensure the correct names for the directories are listed.

Under Services, all services are enabled and read-only by default for the Smart Clone flow.

Under Ports, the target database port is listed. Based on this port, you can choose the required port pool for the applications tier and check the availability of the same on the target host. Based on the port pool selected, the other port pool will be incremented accordingly from the default values.

**5.** In the Copy Parameters page, define the Copy parameters for the source to target procedure.

For Stage and Copy Options, choose one of the following:

No Copy - Choose No Copy if your source and destination stage directories are
one and the same and on a disk which is shared by both the source and target
hosts.



Copy - Choose Copy if your source and destination stage directories are different (or) on different hosts.

If you choose "Copy", you are prompted for Copy Options.



Specify your Source Stage Path and Target Stage Path.



Enter Credentials in the Credentials page.

If you choose the option "Use Preferred Credentials" for the Source System application node, the preferred credentials for the "Oracle E-Business Suite Infrastructure" target type should be set for the "APPL\_TOP Context" context.

For the Target System, if you choose "Use Preferred Credentials", then the preferred credentials for the target host should be set for "Normal Username" and "Normal Password".

You can of course override the preferred credentials and enter them in this page. Use the **Test** buttons to test your entries.



On the Schedule page, specify if you want the clone procedure to run immediately or later.



8.

On the Review page, review the procedure you have entered. You can click Save for Later to save the procedure, or click Finish if you want to submit it immediately.

# Cloning a RAC Instance to a Target RAC Instance using Smart Clone

This section describes the Smart Clone procedure to clone a source RAC Oracle E-Business Suite instance to a RAC target Oracle E-Business Suite instance.

1. Navigate to the Cloning home page. Select Smart Clone from the list and click **Go**. Note that there is an assumption here that you have already cloned the source database to a target database using EM DB Provisioning or another technology.



In the General page, enter the following under Job Details:

- Clone Name The Clone Transaction name.
- Source Application System Use the LOV to pick the source Oracle E-Business Suite instance. Note that because Smart Clone supports cloning with Release 11*i* instances only, only Release 11*i* instances are listed in the LOV.

Under Target Database Details, enter the following:

- Select Target Database Pick the target Oracle E-Business Suite database. This database must be of type RAC.
- Apps Schema Username
- Apps Schema Password
- System Schema Password The target database system password.

Use the **Validate Database** button to validate the target database. This validation will catch any errors in the user-entered fields of this target database.

	Home	Targets Deployments	Setup S Alerts Compliano	
are   Web Applications   Services   Sy	rstems   Groups   All Targets			
neral RAC Target DB details Source/	Target Copy Parameters Credentia	Is Schedule More		
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		Ca	ncel Save For Later	Back Step 2 of 7 Next
Targets   Deployments   Alerts   Con	npliance   Jobs   Reports   Setup	Preferences   Help   Log	out	
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	RAC Target DB details Source/	TNS admin directory  Listener Name  TNS admin directory  Targets   Deployments   Alerts   Compliance   Jobs   Reports   Setup    Targets   Deployments   Alerts   Compliance   Jobs   Reports   Setup	Web Applications   Services   Systems   Groups   All Targets  Paral RAC Target DB details   Source/Target   Copy Parameters   Credentials   Schedule   More    Listener Name   TNS admin directory    Listener Name	Home Targets   Deployments   Alerts   Compliance   Web Applications   Sentces   Systems   Groups   All Targets      RAC Target DB details   Source/Target   Copy Parameters   Credentials   Schedule   More

The RAC Target DB Details page is enabled only for RAC target flows. Here you enter the virtual host name, listener name, and the TNS admin directory for each node of the RAC.

Under RAC Target DB Node Specific Details is a table with a row for each node present in the RAC. For each row, enter the following:

- Virtual Host Name
- Listener Name

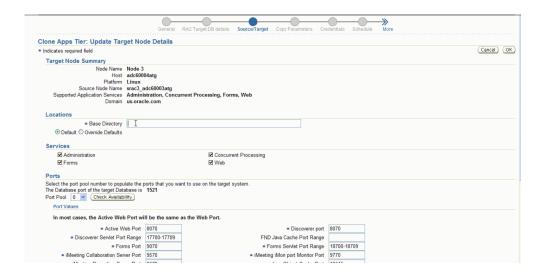
3.

TNS admin directory - Enter the TNS admin directory that is currently used by the Target Database Listener."



In the Source/Target page, use the LOV to define the host where the applications tier needs to be deployed.

Click on the Specify Details icon to enter in other details about the target system.



In the Update Target Node Details page, enter the following under Locations:

- Base Directory Enter the base directory for the applications tier.
- Choose one of the following:
  - Default If this option is chosen, other directory structures will be derived based on the base directory entered.
  - Override Defaults Use this option to override the default directories if you wish. You can then individually override the default values.

Under Services, all services are enabled and read-only by default for the Smart Clone flow.

Under Ports, the target database port is listed. Based on this port, you can choose the required port pool for the applications tier and check the availability of the same on the target host. Based on the port pool selected, the other port pool will be incremented accordingly from the default values.

Oracle Applications   Ho	sts   Databases   Mid	deware   Web Applicat	tions   Services   Systems	Groups   All Targ	ets				
		General RAC Target	DB details Source/Target	Copy Parameters	Credentials	Schedule	→> More		
Clone Apps Tier: Copy	/ Parameters								
■ Indicates required field							Cancel	Save For Later	Back Step 4 of 7 Next
Stage And Copy Options	ОСору	-	ge directories are one and the sam		shared by both So	ource and Targe	et hosts		
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Name Ho	ost Stage Path								
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Target Stage				R					
Name	Host Stage Pat	h							
TRAC21_adc60004atg	adc60004atg /d0/11i/sta	ges/stg_nov_16							
							Cancel	Save For Later	Back Step 4 of 7 Next
	Hom	e   Targets   Deployn	ments   Alerts   Compliano	e   Jobs   Reports	Setup   Pre	eferences	Help   Logout		
Copyright © 1996, 2009, Oracle and Oracle is a registered trademark of Other names may be trademarks of About Oracle Enterprise Mans	Oracle Corporation and/or its their respective owners.								Privacy Statement

In the Copy Parameters page, define the Copy parameters for the source to target procedure.

For Stage and Copy Options, choose one of the following:

6.

- No Copy Choose No Copy if your source and destination stage directories are one and the same and on a disk which is shared by both the source and target hosts.
- Copy Choose Copy if your source and destination stage directories are different (or) on different hosts.

If you choose "Copy", you are prompted for Copy Options.

Specify your Source Stage Path and Target Stage Path.



Enter Credentials in the Credentials page.

If you choose the option "Use Preferred Credentials" for the Source System application node, the preferred credentials for the "Oracle E-Business Suite Infrastructure" target type should be set for the "APPL\_TOP Context" context.

For the Target System, if you choose "Use Preferred Credentials", then the preferred credentials for the target host should be set for "Normal Username" and "Normal

#### Password".

You can of course override the preferred credentials and enter them manually in this page. Use the **Test** buttons to test your entries.

Note that for the Target System credentials, the Database Node OS Credentials table shows all the nodes of the database.



On the Schedule page, specify if you want the clone procedure to run immediately or later.



On the Review page, review the procedure you have entered. You can click **Save** for Later to save the procedure, or click Finish if you want to submit it immediately.

#### **What's Next**

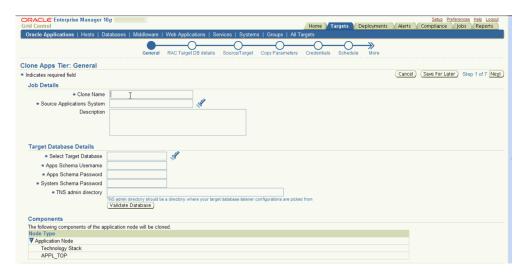
With Smart Clone, if the target Oracle E-Business Suite instance database is of type "RAC" and if you want to configure Parallel Concurrent Processing after the clone is completed, then it is recommended that you follow the steps described in My Oracle Support Knowledge Document 388577.1 (see Step 3.12.2, Set Up Parallel Concurrent

Processing).

# Scale-Down Cloning of a Multi-node Applications Tier Source Instance With a Shared File System using Smart Clone

This section describes the Smart Clone procedure to clone a multi-node Oracle E-Business Suite source instance with a Shared File System to a target Oracle E-Business Suite instance having a single-node applications tier.

Navigate to the Cloning home page. Select Smart Clone from the list and click **Go**. Note that there is an assumption here that you have already cloned the source database to a target database using EM DB Provisioning or another technology.



2.

In the General page, enter the following under Job Details:

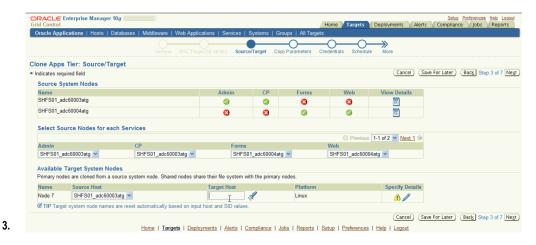
- Clone Name The Clone Transaction name.
- Source Application System Use the LOV to pick the source Oracle E-Business Suite instance. Note that because Smart Clone supports cloning with Release 11i instances only, only Release 11i instances are listed in the LOV.

Under Target Database Details, enter the following:

- Select Target Database Pick the target database that is already cloned using the external tools and now needs to be configured as an Oracle E-Business Suite database.
- Apps Schema Username
- Apps Schema Password

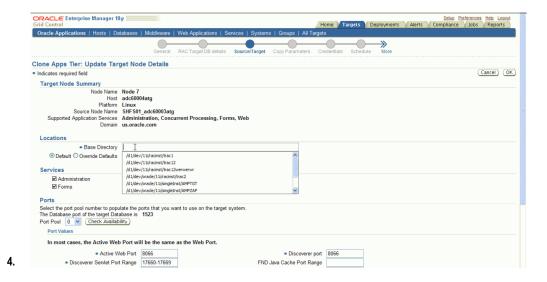
- System Schema Password The target database system password.
- TNS admin directory Enter the TNS admin directory that is currently used by the Target Database Listener. This input text box will appear only if the database is of the type Single Database.

Use the **Validate Database** button to validate the target database.



Enter Source and Target information on the Source/Target page.

- Source System Nodes This table has details on which applications tier has which service (Admin, Concurrent Processing, Forms, or Web). Use the icon under View Details to see more information for each node.
- Select Source Nodes for each Service In this table, map the node for each individual service. If you have more than one node for the same service, then you have to pick one that references the applications tier node.
- Available Target System Nodes You can pick any of the source nodes as a reference node for the Source Host field. Select the target host for the applications tier using the LOV.
  - Click on the icon under Specify Details to add more information on the target instance applications tier. If you do not specify details and click the Next button to proceed onward, you will get an error message.



Enter in additional details about the target instance applications tier.

In the Update Target Node Details page, enter the following under Locations:

- Base Directory Enter the base directory for the applications tier.
- Override Defaults (Optional) Use this option to override the default directories if you wish. Ensure the correct names for the directories are listed.

Under Services, all services are enabled and read-only by default for the Smart Clone flow.

Under Ports, the target database port is listed. Based on this port, you can choose the required port pool for the applications tier and check the availability of the same on the target host. Based on the port pool selected, the other port pool will be incremented accordingly from the default values.



In the Copy Parameters page, define the Copy parameters for the source to target procedure.

For Stage and Copy Options, choose one of the following:

- No Copy Choose No Copy if your source and destination stage directories are one and the same and on a disk which is shared by both the source and target hosts.
- Copy Choose Copy if your source and destination stage directories are different (or) on different hosts.

If you choose "Copy", you are prompted for Copy Options.

Specify your Source Stage Path. In the case of a Shared File System, because the APPL\_TOP is shared across all the applications tier nodes of the source Oracle E-Business Suite instance, any one stage location should be usable here.

Specify your Target Stage Path.



6.

Enter Credentials in the Credentials page.

If you choose the option "Use Preferred Credentials" for the Source System application node, the preferred credentials for the "Oracle E-Business Suite Infrastructure" target type should be set for the "APPL\_TOP Context" context.

For the Target System, if you choose "Use Preferred Credentials", then the preferred credentials for the target host should be set for "Normal Username" and "Normal Password".

You can of course override the preferred credentials and enter them manually in this page. Use the **Test** buttons to test your entries.



7.

On the Schedule page, specify if you want the clone procedure to run immediately or later.

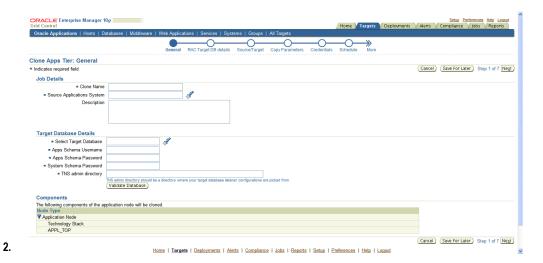


On the Review page, review the procedure you have entered. You can click **Save** for Later to save the procedure, or click Finish if you want to submit it immediately.

# Scale-Down Cloning of a Multi-node Applications Tier Source Instance Without a Shared File System using Smart Clone

This section describes the Smart Clone procedure to clone a multi-node Oracle E-Business Suite source instance without a Shared File System to a target Oracle E-Business Suite instance having a single-node applications tier.

Navigate to the Cloning home page. Select Smart Clone from the list and click **Go**. Note that there is an assumption here that you have already cloned the source database to a target database using EM DB Provisioning or another technology.



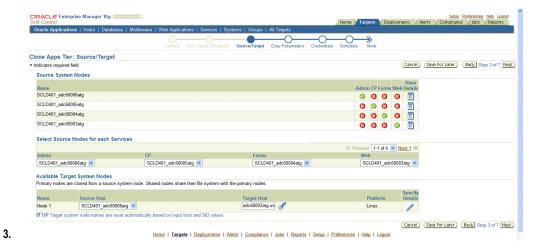
In the General page, enter the following under Job Details:

- Clone Name The Clone Transaction name.
- Source Application System Use the LOV to pick the source Oracle E-Business Suite instance. Note that because Smart Clone supports cloning with Release 11i instances only, only Release 11i instances are listed in the LOV.

Under Target Database Details, enter the following:

- Select Target Database Pick the target database that is already cloned using the external tools and now needs to be configured as an Oracle E-Business Suite database.
- Apps Schema Username
- Apps Schema Password
- System Schema Password The target database system password.
- TNS admin directory Enter the TNS admin directory that is currently used by the Target Database Listener. This input text box will appear only if the database is of the type Single Database.

Use the **Validate Database** button to validate the target database.



Enter Source and Target information on the Source/Target page.

- Source System Nodes This table has details on which applications tier has which service (Admin, Concurrent Processing, Forms, or Web). Use the icon under View Details to see more information for each node.
- Select Source Nodes for each Service In this table, map the node for each individual service.

**Important:** You must run the "Update Snapshot" utility of the adadmin tool on at least the chosen nodes for each of the services before submitting this Smart Clone deployment procedure.

Available Target System Nodes - You can pick any of the source nodes as a reference node for the Source Host field. Select the target host for the applications tier using the LOV.

Click on the icon under Specify Details to add more information on the target instance applications tier. If you do not specify details and click the Next button to proceed onward, you will get an error message.

DRACL€ Enterprise Manager 10 Grid Control	g						Home	Targets	Deployments	Alerts	Setup E Compliance		Reports
Oracle Applications   Hosts   Dat	tabases   Middleware	Web Applicatio	ns   Services   Sy	stems   Groups	All Targets								
			AC Target DB details		Copy Parameters		Schedule						
Clone Apps Tier: Update Targ	get Node Details												
Indicates required field												(	ancel OK
Target Node Summary													
Platform Source Node Name Supported Application Services	adc60003atg Linux SCLD401_adc60006atg	rrent Processi	ıg, Forms, Web										
Locations													
■ Base Directory	4												
<ul> <li>Default Override Defaults</li> </ul>	/d1/QA/NSS												
Services	/d1/dev/oracle/11i/racinst/ /d1/dev/oracle/11i/racinst/												
☑ Administration ☑ Forms	/d2/ut/r12/utenvr21 /tmp												
Ports													
Select the port pool number to popu The Database port of the target Dat Port Pool 0 Check Availab	abase is 1523	nt to use on the	target system.										
In most cases, the Active Web	Port will be the same	as the Web Po	rt.										
* Active W	eb Port 8033				■ Discoverer por	8033							
Discoverer Servlet Port				FND Ja	wa Cache Port Range		_						
	ns Port 9033				ns Servlet Port Range	_	9						
	_						_						

Enter in additional details about the target instance applications tier.

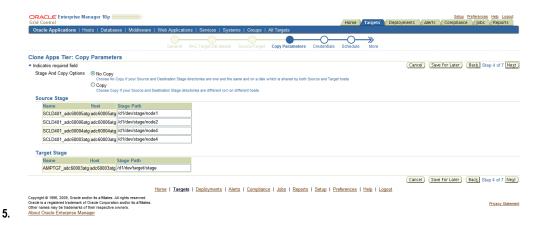
4.

In the Update Target Node Details page, enter the following under Locations:

- Base Directory Enter the base directory for the applications tier.
- Override Defaults (Optional) Use this option to override the default directories if you wish. Ensure the correct names for the directories are listed.

Under Services, all services are enabled and read-only by default for the Smart Clone flow.

Under Ports, the target database port is listed. Based on this port, you can choose the required port pool for the applications tier and check the availability of the same on the target host. Based on the port pool selected, the other port pool will be incremented accordingly from the default values.



In the Copy Parameters page, define the Copy parameters for the source to target procedure.

For Stage and Copy Options, choose one of the following:

- No Copy Choose No Copy if your source and destination stage directories are one and the same and on a disk which is shared by both the source and target hosts.
- Copy Choose Copy if your source and destination stage directories are different (or) on different hosts.

If you choose "Copy", you are prompted for Copy Options.

Specify your Source Stage Paths. In the case of a multi-node applications tier without a shared file system of the source Oracle E-Business Suite instance, you must provide the stage directory for each of the nodes.

Specify your Target Stage Path.



Enter Credentials in the Credentials page.

If you choose the option "Use Preferred Credentials" for the Source System application node, the preferred credentials for the "Oracle E-Business Suite Infrastructure" target type should be set for the "APPL\_TOP Context" context.

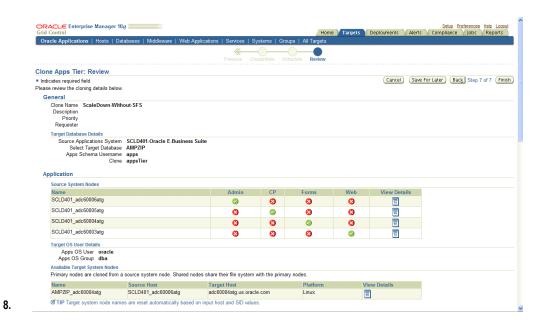
For the Target System, if you choose "Use Preferred Credentials", then the preferred credentials for the target host should be set for "Normal Username" and "Normal Password".

You can of course override the preferred credentials and enter them manually in this page. Use the **Test** buttons to test your entries.

> **Note:** The table for Source Database Schema appears only for scale-down cloning of a multi-node source instance without a Shared File System. It does not appear for other types of Smart Clone flows.



On the Schedule page, specify if you want the clone procedure to run immediately or later.



On the Review page, review the procedure you have entered. You can click Save for Later to save the procedure, or click Finish if you want to submit it immediately.

# **Configuration Properties**

The following are the set of properties in the amp properties file which can be altered to configure the number of parallel jobs to be used by the Smart Clone while performing different steps in the deployment procedure.

ampCloneApplTopParallelThreads=8

This value will determine the number. of threads to be used while zipping, transferring and unzipping the files under APPL\_TOP of the Applications tier. Maximum value: 16, default: 8

ampCloneToolsParallelThreads=4

This value will determine the number of threads to be used while zipping, transferring, and unzipping the files under the Tools home of Applications tier. Maximum value: 8, default: 4

ampCloneWebParallelThreads=2

This value will determine the number of threads to be used while zipping, transferring, and unzipping the files under the Web home of Applications tier. Maximum value: 4, default: 2

ampCloneCommonTopParallelThreads=2

This value will determine the number of threads to be used while zipping, transferring, and unzipping the files under COMMON\_TOP of the Applications tier. Maximum value: 4, default: 2

# **Application Service Level Monitoring**

## Application Service Level Monitoring

With Oracle Enterprise Manager 10g Grid Control you can define one or more service models that represent the business functions or applications in your enterprise. You can define these service models by creating one or more service tests that simulate common end-user functionality. Using these service tests, you can measure the performance and availability of critical business functions, receive alerts when there is a problem, identify common issues and diagnose causes of failures. Monitoring a service helps you ensure that your operational goals and service level agreements are met. Refer to the *Oracle* Enterprise Manager Concepts for more information on the concepts of service management.

## Web Transactions Monitoring

You can define a Web application service to monitor Web transactions. A Web application target consolidates all the components of your Web application and determines the availability, performance and usage of the application.

The availability of the Web application can be defined in terms of availability of the Web transactions that are being monitored. For Web applications, Web transactions represent the service tests. A Web application is available as long as the critical functions such as generating a sales report or an online purchase can be performed. Beacons are used to monitor the Web transactions from different geographical locations. You can designate one or more beacons as the "key beacons" that will be used to run the Web transaction. The Web transaction is considered available if it can be executed successfully by any of the key beacons. A Web application can have multiple "key Web transactions" defined. One or more key Web transactions can be used to monitor the availability of the Web application.

Go through the following steps to define your own Web applications for monitoring your key Web transactions.

#### **Setup Tasks Prior to recording Web Transactions**

#### Create an Oracle E-Business Suite user for beacon monitoring and playback

In your Oracle E-Business Suite system, create an Oracle E-Business Suite user for beacon monitoring and playback from Enterprise Manager. Ensure that this user has all the responsibilities required to perform the Web transactions that you will be recording.

#### Update Fixed Key profile options

- Set profile "FND: Fixed Key Enabled" to "Yes" for the Oracle E-Business Suite user created above.
- Set profile "FND: Fixed Key" to a hexadecimal String of length 64 for the Oracle E-Business Suite user created above. Example "AAAA....A" (x64).
- Set the profiles "FND: Fixed Key Enabled" to "Yes" and "FND: Fixed Key" to the same value as set in item (2) above for the Guest user. The Guest user is determined by the profile "GUEST\_USER\_PWD" and is typically the user "GUEST".

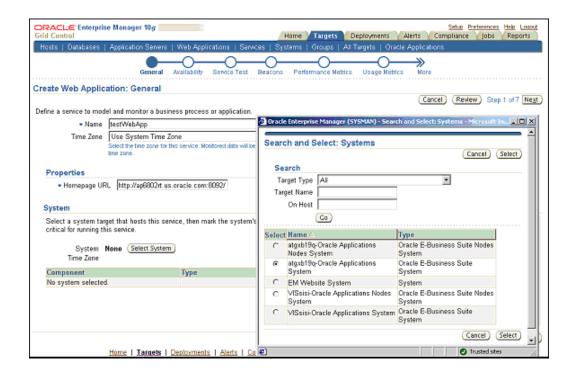
#### **Recording Web Transactions**

You can create a Web application service to record Web transactions for monitoring as follows.



Follow the steps in the Create Web Application wizard to create a Web application service and record Web transactions that represent the service tests for the Web application. At any step in the wizard, you can click on the global "Help" link to get detailed information and instructions for that step.

In the "General" step of the wizard, if you decide to select a system that hosts the Web application service, you can select the system of type "Oracle E-Business Suite System" for your Oracle E-Business Suite system.

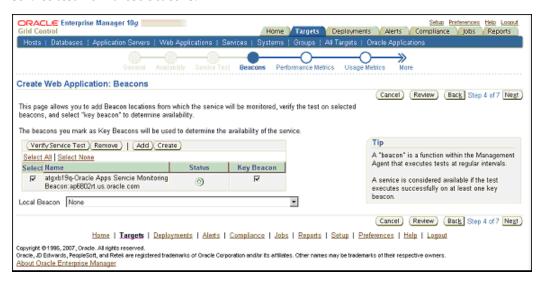


In the "Availability" step of the wizard, choose "Service Test" to determine the availability of the Web application service based on the key Web transactions.

In the "Service Test" step of the wizard, you can record a Web transaction by following the instructions on the page. When recording the transaction, log in to the Oracle E-Business Suite system as the Oracle E-Business Suite user and navigate to the related pages in order to perform the Web transaction. After recording, click on the **Verify** button to playback the recorded transaction in the browser.



In the "Beacons" step of the wizard, add or create beacons that will monitor and playback the Web transaction. You can also select one or more beacons and verify the service test from those beacons.

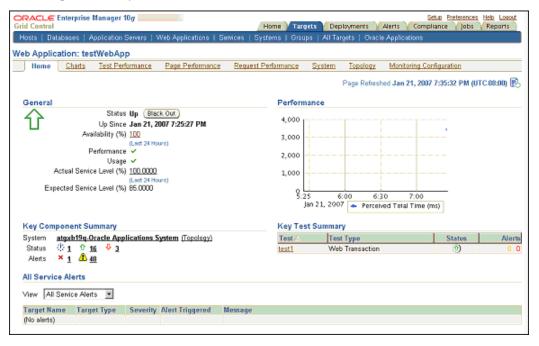


### **Monitoring Web Transactions**

You can monitor your recorded Web transactions by clicking on the Web applications service.



If you selected "Service Test" for determining availability of the Web application, the status of the Web application service will be based on the status of the Web transactions that comprise the key tests for that service.



You can also navigate to the "Test Performance" subtab to view the performance of each key test as measured from each of the key beacons.



#### **Example Web Transaction**

The Application Management Pack provides an "Order Management - Order Information Portal" service with an example Web transaction. In order to enable this service, you can follow these steps.

1. Create an Oracle E-Business Suite user for beacon monitoring and playback.

In your Oracle E-Business Suite system create an Oracle E-Business Suite user for beacon monitoring and playback from Enterprise Manager. Assign the "OAM EM Service Monitor" responsibility to this user.

**2.** Update Fixed Key profile options.

Update the Fixed Key profile options described above for the user you just created. Set the profile "FND: Fixed Key" to a hexadecimal String "AAAA....A" (of length 64).

**Note:** You must set the "FND: Fixed Key" profile to this specific key value in order to enable the out-of-box example.

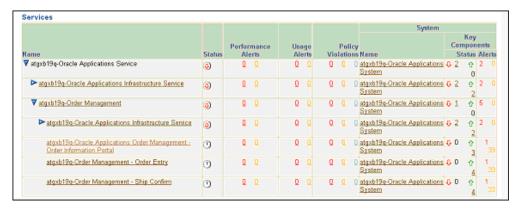
3. Discover the Oracle E-Business Suite system.

Register your Oracle E-Business Suite System with Enterprise Manager as described in the chapter Discovering Oracle E-Business Suite Systems with Grid Control, page 2-1. After choosing the relevant database, in addition to the Monitoring Schema and

Monitoring Schema Password, specify values for the Monitoring Applications Username and Monitoring Applications User Password. The Monitoring Applications Username and Monitoring Applications User Password fields should contain the credentials for the Applications user created in the step above.

Enable the example Web transaction.

After registering the Oracle E-Business Suite system, from the Oracle Applications target home page, select the Order Management - Order Information Portal target.



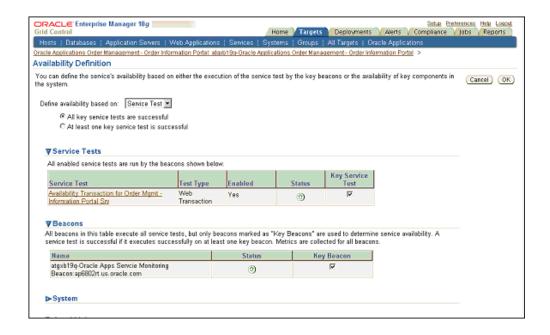
Enable the service tests under Monitoring Configuration page of the service.





Define the availability of the Order Information Portal service by selecting the key test and key beacons. To do this, follow this navigation path: Oracle Applications Order Management - Order Information Portal page > Monitoring Configuration tab > Availability Definition link.





# **Data Scrambling**

## **Introduction to Data Scrambling**

Data scrambling is the process to obfuscate or remove sensitive data. This process is irreversible so that the original data cannot be derived from the scrambled data. Data scrambling can be utilized only during the cloning process.

The data scrambling feature is facilitated through the data scrambling framework that is available with Oracle E-Business Suite Release 11i and Release 12. The framework provides a user interface to enter database columns to obfuscate or truncate data. This user interface is available from within Oracle Applications Manager. After collecting this pre-configured information, you select a user-configured or pre-seeded configuration for use by the data scrambling engine during cloning.

The following table lists some data scrambling terms used in this document.

Term	Meaning
Attribute	Group of columns in one or more tables representing a single, logical Oracle E-Business Suite-wide value such as customer name.
Tables to Purge	Tables selected to be purged for rows matching user-defined criteria. This table selection allows the removal of sensitive data such as transaction histories before allowing applications to access to the system.

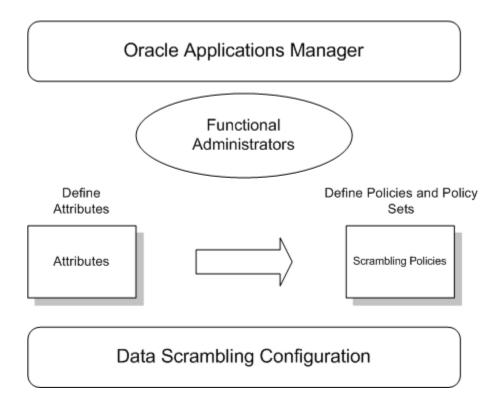
Term	Meaning
Policy	Functional groupings of Attributes and Tables to Purge related to one or more applications in the Oracle E-Business Suite. For example: an Oracle General Ledger policy or an Oracle Receivables policy.
Policy Set	Policy sets are groups of policies. Multiple policy sets contains overlapping policies.  Example: Financial policy set

In order to use the data scrambling feature you must first enable it. To enable data scrambling, update the site-level profile option OAM: Data Scrambling Enabled to "Yes".

> **Note:** As part of the cloning process, an interim environment stage is created for data scrambling. After the data scrambling is finished, the database and stage path remain, even though the stage path is copied to the target system. You can remove the interim database, if desired, by shutting it down and manually removing the software and the .dbf files from the file system.

# **Configuring Data Scrambling**

Data scrambling is configured through the Oracle Applications Manager.



The configuration process begins with the functional administrators defining the attributes and mapping them to database columns. Then they collect attributes together to define policies and policy sets. All these steps are part of the data scrambling configuration and are performed within Oracle Applications Manager.

To configure data scrambling, use Oracle Applications Manager, and navigate to the following: Sitemap > Maintenance tab > Cloning Data Scrambling Configuration.

Clicking the Configuration link takes you to the Data Scrambling Configuration main page. Here you can define attributes, define tables to purge, define policies, and define policy sets.

#### Task 1: Define Attributes

The first task in configuring data scrambling is to define the attributes to be scrambled. Click the Task icon corresponding to "Task 1: Define Attributes".

Defining data scrambling attributes involves three steps.

- Provide an attribute name and description. Select the default data scrambling algorithm.
- 2. Click **Next** to proceed to the second step. In this step, you can specify the table name, column name, the where clause and a specific data algorithm to be used for this column. (A specified data algorithm here overrides the default one from the previous step).

3. Click **Next** to proceed to the final step, in which you can review the details entered before defining the attribute.

#### Task 2: Define Tables to Purge

The second task is to define tables to purge. When cloning production systems, it is important that you purge transactional or workflow tables to avoid further processing of the same in the test or development system.

For example, to avoid having your test systems (after the data was cloned from your production) in sending out workflow notifications as part of the workflow process, it's advisable to purge the workflow tables.

Click the Task icon corresponding to "Task 2: Define Tables to Purge".

Then define which tables to purge and click **OK** to save your work.

#### Task 3: Define Policies

The third task is to define your data scrambling policies.

Click the Task icon corresponding to "Task 3: Define Policies".

Defining a new policy is done in three steps.

- 1. Define the policy name and select the attributes to be part of this policy.
- 2. Choose the tables to be purged as part of this policy. This is an optional step.
- 3. In the final step, review the details entered before defining the policy.

#### **Task 4: Defining Policy Set**

The next task in the configuration process is to define the policy set. Please note that during the cloning process, you can only choose from policy sets for scrambling the target system data.

- 1. Click the Task icon corresponding to "Task 4: Define Policy Sets".
- 2. Create policy sets by grouping policies that have been created previously.

## **Data Scrambling Execution**

The configuration set through Oracle Applications Manager for data scrambling can be utilized by the cloning process during system runtime of Oracle Enterprise Manager Grid Control.

The Database Administrator specifies the policy sets to scramble the source data, and initiates and monitors the data scrambling.

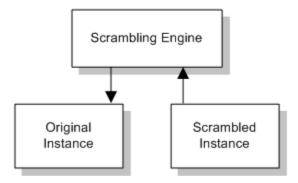
The source data from the original instance is sent through the data scrambling engine, which then provides the scrambled data as output.

Oracle Enterprise Manager Grid Control

# System Runtime

Database Administrators

Pick policy set, initiate and monitor scrambling



# **Command Line Discovery for Oracle E-Business Suite Systems**

## **Command Line Discovery for Oracle E-Business Suite Systems**

**Note:** Command line discovery is currently not certified on MS Windows platforms.

The Oracle Application Management Pack for Oracle E-Business Suite provides a command line interface for the batch discovery of multiple Oracle E-Business Suite systems. Command line discovery is executed using the script ebsdiscovery.sh which is located under the Oracle Management Server (OMS) ORACLE HOME:

\$ORACLE HOME/sysman/admin/scripts/ebs/cli/amp/disc/ebsdiscovery.sh

### **Prerequisites**

The operating system user who runs Command Line Discovery must have the full permissions on the OMS ORACLE\_HOME. Before running Command Line Discovery, set the following environment variables:

- ORACLE\_HOME: This environment variable must be set to OMS Home.
- JAVA\_HOME: This variable must be set to a valid JDK 1.4.x directory. The OMS ORACLE\_HOME ships with one under \$ORACLE\_HOME/jdk. Once the OMS ORACLE\_HOME is set, JAVA\_HOME may be set simply by reference to the ORACLE\_HOME variable:

```
export JAVA HOME=$ORACLE HOME/jdk
```

Before running discovery for multiple instances, it is highly recommended that you first try discovering a single Oracle E-Business Suite system.

### Creating the Credentials File

The ebsdiscovery.sh needs to authenticate itself to the OMS throughout the discovery process. To automate this process, a credentials file must be created which contains encrypted credentials the script will use for the authentications.

The ebsdiscovery.sh script is used to create the OMS Credentials file by running the following command:

```
ebsdiscovery.sh createcredentials <outfile>
```

This command takes input from the command line and creates the OMS Credentials file <outfile> containing the encrypted SYSMAN username and password.

Requested input includes:

- Hostname
- Database port
- **Database SID**
- EMREP username [SYSMAN user]
- EMREP password

#### Creating the OMS Credentials file (omscred.conf) and its resulting output

```
[oraem@lcmdev01 cli]$ export ORACLE_HOME=/u01/emgc01/oms10g
[oraem@lcmdev01 cli]$ export_JAVA_HOME=$ORACLE_HOME/jdk
[oraem@lcmdev01 cli]$ ./ebsdiscovery.sh createcredentials omscred.conf
 ***************
* Command Line Discovery for Oracle E-Biz Suite *
Starting...Time=Thu Sep 27 16:09:46 IST 2007
Enter Credentials to connect to OMS Repository
Enter hostname:lcmdev01.idc.oracle.com
Enter Database port:1521
Enter Database SID:1cmdev01
Enter EMREP Username :sysman
Enter EMREP password
Created OMS Credential file: omscred.conf
[oraem@lcmdev01 cli]$ cat omscred.conf
EMREP_JDBC_URL => jdbc:oracle:thin:@lcmdev01.idc.oracle.com:1521:lcmdev01;
EMREP_UID => sysman;
EMREP_ENCRYPTED_PMD => V88KNRaJKUvikSgVsuhK4A==;
[oraem@lcmdev01_cli]$
```

### **Discovery**

The ebsdiscovery.sh script can be run with the following parameters:

inputfile=<ebslist>

This option, when passed to the ebsdiscovery.sh script, will allow for the use of an input file which may contain details for the discovery of several Release 11i or Release 12 Oracle E-Business Suite systems (Oracle Applications environments). See: The ebsList.txt file, page A-4 for more information.

How this option works: Information will be taken from the file specified as <ebslist> and submitted as separate Enterprise Manager jobs for discovering each Oracle E-Business Suite system described in the file. If this "inputfile" option is not provided, then the default value is ebsList.txt. Please see ebsList.txt under \$OMS\_HOME/sysman/admin/scripts/ebs/cli/amp/disc/ for a sample input file.

omscred=<oms credentials file>

OMS Credentials will be taken from this file. This file is machine-generated and should not be edited. If this file does not exist, the ebsdiscovery.sh script will create it. If this "omscred" option is not provided, then the default value is omscred.conf.

logdir=<log directory>

This option determines the location where the log files will be written.

An example of running the command is:

./ebsdiscovery.sh inputfile=ebsList.txt omscred=omscred.conf logdir=/tmp

#### Running Command Line Discovery

```
[oraem@lcmdev01 cli]$ export ORACLE_HOME=/u01/emgc01/oms10g
[oraem@lcmdev01 cli]$ export JAVA_HOME=$0RACLE_HOME/jdk
[oraem@lcmdev01 cli]$ ./ebsdiscovery.sh inputfile=ebsList.txt omscred=omscred.conf
logdir=/tmp
**************
* Command Line Discovery for Oracle E-Biz Suite *
Starting...Time=Thu Sep 27 17:13:27 IST 2007
ebsListFile=ebsList.txt
omsCredFile=omscred.conf
outputDir=/tmp
Reading OMS Credentials from file:omscred.conf
Creating EBS list from file:ebsList.txt
Clearing Existing parameters for :R12VISO4
Updating parameters for :R12VISO4
Creating job: Discover_Gracle_App_oracle_database_1190893408919 for instance: R12V
IS04
Successfully submitted Job for Discovering :R12VISO4 at Thu Sep 27 17:13:29 IST 20
Please go to EM console to view the status of discovery job(s)
[oraem@lcmdev01 cli]$
```

After the discovery job is started, you can view its status on the Oracle Management Server. From the Oracle Enterprise Manager console, navigate to Jobs (tab) > Job Activity. The status of the job is shown in the Status field. Click on the job name link to drill down to details on the discovered Oracle E-Business Suite instance.

#### The ebsList.txt file

The ebsList.txt file contains parameters and values for the discovery process.

#### The ebsList.txt file

```
[oraem@lcmdev01 cli]$ cat ebsList.txt
DEFAULT=> [[
    DISCOVER_FORMS=> Y;
DISCOVER_FORMS_SERVICE=> Y;
    DISCOVER WORKFLOW=> Y;
    DISCOVER_WORKFLOW_SERVICE=> Y;
    DISCOVER SSA=> Y;
    DISCOVER_MWA=> N;
DISCOVER_JFF=> N;
    DISCOVER CUSTOM OBJECTS=> Y;
    DISCOVER PATCHING=> Y;
    ADD CUSTOMER GROUP=> Y;
    CUSTOMER INST GRP NAME=> IDC;
    CUSTOMER GRP_NAME=> IDCR12VIS04;
    APPS_USER=> apps;
    APPS PASSWD=> apps;
    APPS MONITORING USER=> apps;
    APPS MONITORING PASSWORD=> apps;
 We can write ne thing here
R12VISO4=> [[
        DB TARGET=> R12VIS04;
        11
[oraem@lcmdev01 cli]$
```

The format for the ebsList.txt file is:

```
DBTARGET=>[[
          DBTARGET=><DBTARGET>;
          DBTYPE=><oracle database | rac database>;
          APPS USER=><apps db user>;
          APPS PASSWORD=><apps password>;
```

Extra parameters can be provided as <key>=><value> pairs delimited by a semi-colon (;).

For ENCRYPTED\_PASSWORD=><encrypted apps password>, the encrypted password will be used to decrypt the password on successive usage of the ebsList.txt file. To override the old password, change the input and add APPS\_PASSWORD key value pair again with the new, changed password.

### ebsList.txt Parameters

The following table describes the ebsList.txt parameters and their valid values.

KEY	SUPPORTED RELEASE	VALID VALUES	DESCRIPTION	DEFAULT
DB_TARGET	All	DB Target Name	Database Target name of the Apps you want to discover	N/A
DB_TYPE	All	oracle_database or rac_database	Database type	oracle_database
APPS_USER	All	Apps username		apps
APPS_PASSWD	All	Apps password	This will be replaced by ENCRYPTED_A PPS_PASSWD	apps
APPS_MONITO RING_USER	12.0 or higher	Apps Monitoring username	This is used for out-of-box service monitoring	
APPS_MONITO RING_PASSWO RD	12.0 or higher	Apps Monitoring password	This will be replaced by ENCRYPTED_A PPS_MONITORI NG_PASSWOR D	
DISCOVER_WO RKFLOW	All	Y or N	Whether to Discover Workflow targets	Y

KEY	SUPPORTED RELEASE	VALID VALUES	DESCRIPTION	DEFAULT
DISCOVER_WO RKFLOW_SERV ICE	12.0 or higher	Y or N	Whether to Discover Workflow Service if DISCOVER_WO RKFLOW is Y	Y
DISCOVER_FOR MS	12.0 or higher	Y or N	Whether to Discover Forms or not	Υ
DISCOVER_FOR MS_SERVICE	12.0 or higher	Y or N	Whether to Discover Forms Service if DISCOVER_FOR M is Y	Y
DISCOVER_SSA	12.0 or higher	Y or N	Whether to discover SSA Service or not	Y
DISCOVER_CUS TOM_OBJECTS	12.0 or higher	Y or N	Whether to Discover Custom Objects or not	Y
DISCOVER_PAT CHING	12.0 or higher	Y or N	Whether to discover Patching Configuration target	Y
PROTOCOL	11 <i>i</i>	http or https	Whether to have http or https	http

KEY	SUPPORTED RELEASE	VALID VALUES	DESCRIPTION	DEFAULT
SRVLT_URL_FR OM_CTXFILE	11 <i>i</i>	Y or N.	Whether to take Servlet URL from Context file or Not. If this value is N, Value for Servlet url will be "/servlet/oracle.f orms.servlet.List enerServlet"	Y
ADD_CUSTOM ER_GROUP	12.0 or higher	Y or N	Shall Add Customer Group	N
CUSTOMER_IN ST_GRP_NAME	12.0 or higher	Text	Customer Instance Group Name	N/A
CUSTOMER_GR P_NAME	12.0 or higher	Text	Customer Group Name	N/A
DELETE_REMO VED_TARGETS	All	Y or N	Whether or not to delete removed targets. Default is N	N
DISCOVER_DIS COVERER	11 <i>i</i>	Y or N	Whether or not discover discoverer	Υ
FORMS_SRVLT_ PROTOCOL	11 <i>i</i>	http or https	Whether to have http or https for forms servlet mode	http
DISCOVER_JVM _USAGE	12.0 or higher	Y or N	Whether or not to discover JVM usage target	Y

## **Customer Groups Created by Discovery**

Groups are an optional feature in Enterprise Manager that allows the logical organization of targets in accordance to user preference. Command line discovery

allows the definition of target groups and placement of Oracle E-Business Suite systems in these groups at time of discovery. This is not available to the normal discovery process available in the management console, although groups can always be created after discovery.

To view these groups, navigate within the Enterprise Manager to Targets (tab) > Groups.

## **Known Product Limitations**

## **Known Product Limitations**

Use of the native Oracle Enterprise Manager (EM) patch mechanism to apply core technology patches (Developer Forms, Application Server, Database or other standalone technologies) against Oracle E-Business Suite managed targets should NOT be done under any circumstances.

While EM can be used to apply such patches to standalone installations of Developer Forms, Application Server and the RDBMS products, when these components are part of an Oracle E-Business Suite environment (installed at the same time via the Rapid Install Wizard), they must not be patched via Oracle Enterprise Manager.

Failure to acknowledge this caveat could result in unrecoverable system status.

Start and Stop features present in some of the Enterprise Manager UI pages should NOT be used against individual Oracle E-Business Suite sub-targets. One example is starting and stopping the Oracle E-Business Suite database. While Oracle Enterprise Manager has no problems starting and stopping individual standalone product services, doing the same with Oracle E-Business Suite components will produce unexpected and inconsistent results.

The Oracle E-Business Suite start and stop scripts are documented in the Oracle E-Business Suite System Administrator's Guide Documentation Set and only those scripts as provided within the Oracle E-Business Suite environment should be used. There are certain services that may be controlled from within the Oracle Application Manager UI (which is tightly bundled with the Oracle E-Business Suite).

At this time, Shared Agent Configurations are limited to Discovery and Monitoring of Oracle E-Business Suite systems. Cloning using the Oracle Application Management Pack for Oracle E-Business Suite in a Shared Agent environment is currently not certified. Shared Agent configurations are currently not supported

- with the Applications Management Pack on Windows platforms.
- The Oracle Enterprise Manager native Database Cloning feature should NOT be used against an Oracle E-Business Suite Database sub-target. The only mechanism for cloning an Oracle E-Business Suite system from within the Oracle Enterprise Manager UI is to do so from the provided cloning flows as discussed within the Cloning chapter of this guide, or alternatively as described in the following Oracle E-Business Suite cloning documents on My Oracle Support: Knowledge Document 230672.1 for Release 11i and Knowledge Document 406982.1 for Release 12.
- 5. Cloning of Oracle E-Business Suite systems which use a shared APPL\_TOP is not yet certified, with the exception of cloning using the Smart Clone deployment procedure. Cloning of systems using a shared APPL\_TOP is supported with Smart Clone.
- 6. Customizations of the seeded cloning procedures are not supported. However, existing cloning procedures may be copied and those copies then edited.
- 7. When upgrading from Oracle Application Management Pack for Oracle E-Business Suite Release 2.0 to 3.0, copies of the seeded cloning procedures from 2.0 will not be supported in 3.0. However, transactions using the "Create Like" functionality using the seeded cloning procedures are supported.
- 8. In cloning, data files without the ".dbf" extension are currently not supported. Ensure that the data files on the source system database have the ".dbf" extension.
- 9. For hot mode cloning, the option to select only dbtechstack files has been disabled and is not supported.
- 10. When performing a Source to Image clone operation on a Source system with multiple Applications nodes that share the file system, only a single Application node can be included in the image.
- 11. Rapid Clone does not support cloning with symbolic links. Therefore, on the HP-PA platform with an Oracle E-Business Suite instance on any 10.2.0.x database: for a Source-to-Image or a Source-to-Target clone procedure, remove the symbolic link present inside the 10.2.0.x database ORACLE\_HOME on HP-PA:

```
<DB OH>/jdk/jre/lib/PA RISC/hotspot
and replace it with absolute files.
```

- 12. Recording and playback for Oracle Forms-based beacon tests is not certified with Oracle E-Business Suite (Releases 11i and 12).
- 13. In discovery and monitoring, Oracle Application Management Pack for Oracle E-Business Suite does not support multiple Oracle E-Business Suite instances with the same name across different hosts on a given Oracle Management Server; that is,

- instances are differentiated only by the Oracle System Identifier (SID) and not the CONTEXT\_NAME values.
- **14.** In the Configured Components page, the Oracle Workflow Background Engine's status, if shown, will show as Up if the background engine's status is Pending or Up.

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