Oracle ® Hosting Manager

Implementation Guide

Release 11*i*

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Oracle Hosting Manager Implementation Guide, Release 11*i*

Part No. A95107-01

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Preface

Intended Audience

This document is intended for IT professionals tasked with implementing Oracle Hosting Manager, Release 11*i*.

Related Documents

Additional information on installing and setting up dependencies is available in the following documents:

- *Release Notes, Oracle Applications Release 11i* (Part # A83528-01)
- *Oracle Applications Release 11i Concepts* (Part # A82932-01)
- *Installing Oracle Applications Release 11i* (Part # A69409-01)
- *Oracle Applications Systems Administrator's Guide* (Part # A75396-06)
- *Implementing Oracle CRM:ERP Functional Checklist* (http://MetaLink.Oracle.com)

1

Overview

This chapter provides an overview of the features and architecture of Oracle Hosting Manager.

1.1 Oracle Hosting Manager Overview

Oracle Hosting Manager (OHM) enables Oracle's eBusiness Suite to be hosting enabled so Applications Service Providers (service providers) can host Oracle Applications in the form of subscribed hosting services.

Oracle Hosting Manager offers a centralized management solution for hosting the Oracle E-Business Suite. It provides Applications Service Providers an integrated IT systems management module that installs, sets-up, and allocates manages hosting database(s) to accommodate large numbers of subscription customers. It also provides a business management module that accepts and approves subscription registrations, generates subscription contracts and offers self-service account administration for subscription customers.

Oracle Hosting Manager provides software solutions for Application Service Providers to efficiently and cost effectively host the Oracle E-Business Suite. The major advantage offered is economies of scale achieved when running and managing applications for large numbers of hosted customers. Oracle Hosting Manager uses Oracle Database's Virtual Private Database (VPD) feature to enable any service provider to host very large numbers of customers in a single instance of the Oracle E-Business Suite.

1.1.1 Features and Benefits

The following are the key features and benefits of Oracle Hosting Manager:

On-Line Registration to service provider services: Oracle Hosting Manager offers a registration module that accepts subscription registration requests from any

business over the Internet. A routing rule established via Oracle Workflow directs all registration requests to a specified approver. Once a registration is approved, a notification email gets sent to the newly approved hosting customer. Automatic allocation of new hosting customers to an active Oracle E-Business Suite account is also available upon registration approval.

On-Line Account Management for Subscription Customers: Oracle Hosting Manager offers subscription customers a module to update their business, billing, and subscription information over the Internet. The updated information is available to the subscription customers as well as to the service provider for account management purposes.

Hosting Database Management: Oracle Hosting Manager provides a central database management module for database patching, hosting database creation as well as subscription account creation. When multiple hosting databases are implemented, Oracle Hosting Manager offers set-up of database rules to determine how to allocate subscription customers to appropriate hosting database accounts. For example, subscription customers may be allocated to time zone based databases based on the geographic location of their business.Rules may also be established to load balance the distribution of accounts across hosting databases.

Scalability & Security: Oracle Hosting Master uses the VPD technology that enables several hosting customers to simultaneously a single Oracle database instance. Oracle Hosting Manager also adds VPD policies on Service Provider specified tables to enforce security per hosting customer.

Table Categorization: In the release 11i of the Oracle eBusiness suite, Oracle Applications have over 10,000 tables. Because many of these tables contain data that are shared by hosting customers (depending on what applications are hosted), it is unnecessary for each hosting customer to have individual copies of these data. Tables that contain such shared data are categorized as "Global" tables in OHM. In conjunction, tables that contain data that are specific to each hosting customer (i.e. transactional data) are categorized as "Local" tables in OHM. In 11.5.6, OHM provides the "Global" and "Local" categorization for all applications tables.

2

Oracle Hosting Master Technology & Architecture

This chapter provides an architectural overview of Oracle Hosting Manager.

2.1 Architecture & Technology Stack

Oracle Hosting Master conforms to the technology stack for Oracle eBusiness Suite release 11.5.6.

·- Data Tier - The data tier includes Oracle ERP and CRM tables. These are driven by the Oracle 8i database. Most CRM application PL/SQL business logic is also in the data tier.

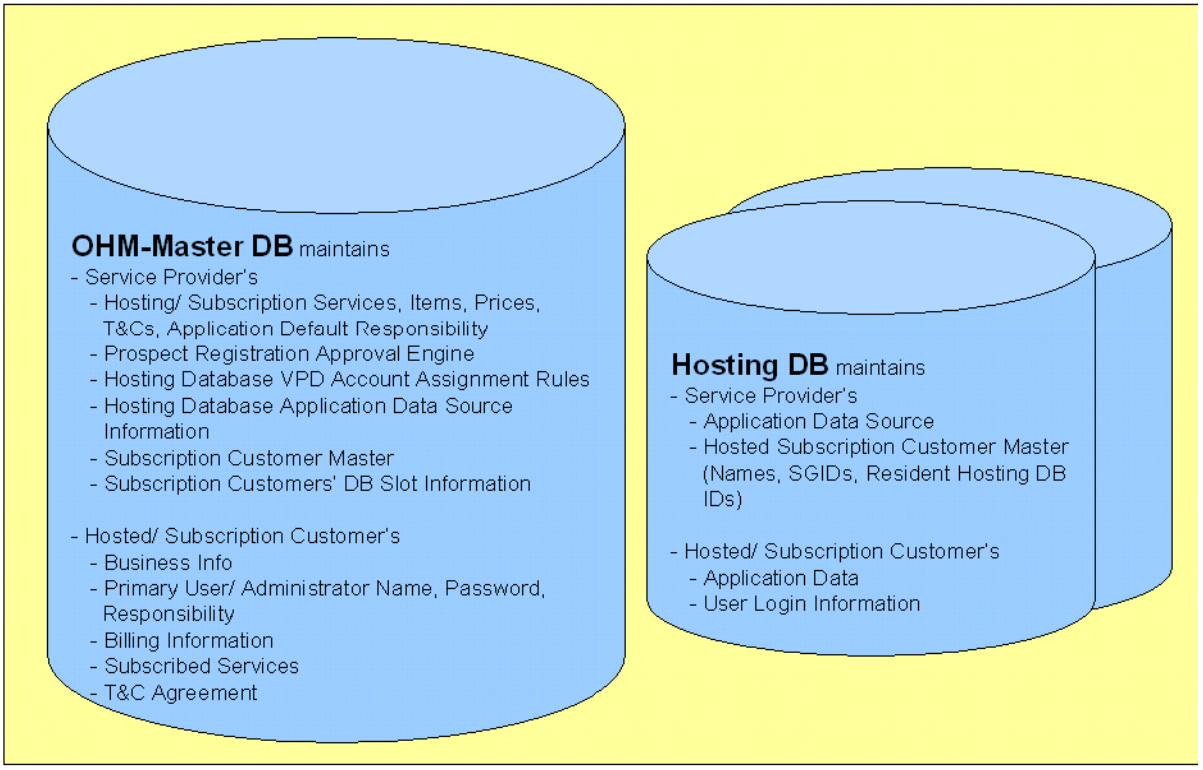
·- Application Tier - The application tier includes business logic APIs, CRM Foundation services, Java Server Pages (JSP), and Java APIs. In addition, the Oracle Application Object Library (AOL) supplies technology and common libraries for the applications. The Internet Application Server (iAS) provides the web server function.

·- Presentation Tier - Includes the application generated Java code and compiled servlet code that utilizes JSP 1.0 and Servlet 2.0. Apache Server 1.3.9 is also included. The Internet Application Server (iAS) provides the web server function.

2.2 Hardware Requirements

The suggested hardware configuration for Oracle iSupport 11i is a series of web servers in the front and a high performance database server machine in the back end. With global systems, the necessity for high performance database servers is even greater.

Oracle Hosting Manager – High Level Architecture



Oracle recommends the following server requirements:

- ERP database server machine - high throughput at fast speed (CPU)
- Web servers running Apache for external customers
- One forms server for administration

You can determine the actual sizing of the machines after completing capacity planning. Specific hardware requirements depend on the particular installation that

you perform. The hardware requirements listed in the following table are guidelines only, and assume a single-node Vision demo environment.

Hardware	Requirement
CPU	2 CPUs minimum, 4 or more highly recommended
Memory	1 GB minimum

2.3 Oracle Hosting Manager - Architecture

The OHM-Master database is an instance that provides the central console to hosting enable one to many Oracle Applications Databases. All the eBusiness modules that Oracle Hosting Manager has dependencies on like Oracle AR, Oracle Inventory etc. should be setup in this instance. The following chapter gives details on these dependencies. The OHM-Master database provides the following features:

-- Customer Account Generation in one to many Hosting Databases

-- Patch & Upgrade Management for one to many Hosting Databases

-- Catalog of Application Hosting Service offerings

-- Storage of connection information for all the Application Hosting Databases

-- Internet enabled Hosting Customer Registration

-- Hosting Customer Registration Approval

-- Hosting Database Assignment Rules

-- Self-Service Account Management for Hosting Customers

The hosting databases are the databases where the customer accounts are created. The hosting databases provide the following features:

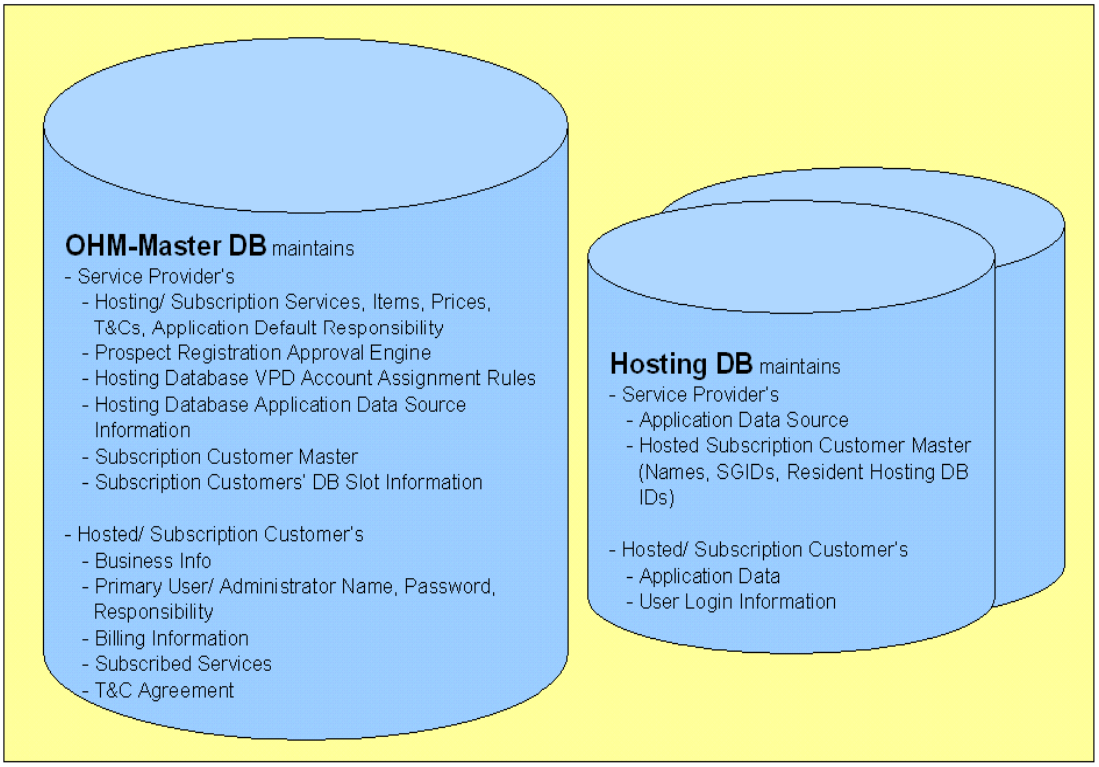
-- Hosting enabled Oracle Applications Databases that allow several hosting customers to coexist in a single Oracle Applications instance

-- Applications seed data "blueprints" that are used to initially generate hosting customer accounts

-- Unique Hosting Customer Identification Numbers across all Hosting Databases

The following diagram shows the architecture of Oracle Hosting Manager:

Oracle Hosting Manager – High Level Architecture



The data that is seeded and other setup data is stored in the OHM-Master database. Some of the data, is also replicated from the OHM-Master database and the hosting databases. Data as the slot allocation information and the SECURITY_GROUP_ID of all the customers are replicated by Oracle Hosting Manager from the OHM-Master database to all the hosting databases.

The next chapter discusses the steps that the service provider should perform before they can perform setups for Oracle Hosting Manager

3

OHM Dependency Overview

This chapter provides an overview of the dependencies that OHM has on other modules in the Oracle eBusiness Suite. The mentioned setup should be completed for mandatory dependencies. For a detailed description of the navigation and field level information, please refer to the User's Guide of the respective module.

3.1 Mandatory Dependencies:

Modules mentioned in this section must be set up for OHM 11i to function properly.

1. Oracle Applications Object Library (AOL) - AOL is a required dependency of all Oracle Applications modules. OHM uses AOL to manage responsibilities, profile options, messages, etc.

2. CRM Foundation (eTF) - eTF is the CRM foundation provides the necessary framework components like Property Manager, used by OHM 11i.

3.Oracle General Ledger (GL) - GL provides business unit information to Oracle OHM 11i.

4. Oracle Human Resources (HR) - HR stores information related to your organizations, such as permitted bill-to, ship-to countries, etc.

5. Oracle Inventory (INV) - The following information is set up in Oracle Inventory

-- Oracle Inventory itself requires at least one inventory organization (usually, the master) to be set up and at least one business unit (organization) to be. In addition, it requires at least one product Catalog group to be set up, even though it may not use it. The following types of items, used in OHM, are set in Oracle Inventory:

-- Subscription Items

·-- Service Items

6. Oracle Pricing (QP) - QP provides the prices of Subscriptions sold through OHM 11i. All items to offerred as hosting services should have prices defined for them in Price-Lists in the QP module.

7. Oracle Receivables (AR) - AR is the central data repository for customer information that uses the trading community architecture (TCA) model. The Service provider uses are for module tax calculation, invoices generation, collections etc.

3.1.1 Setting Up the Mandatory Dependencies

The following steps are the suggested task sequence for setting up Oracle Hosting Manager 11i's mandatory dependencies.

1. Setup AOL

2. Set up Oracle General Ledger.

3. Set up Oracle Inventory.

4. Setup Oracle Pricing

5. Set up Oracle Receivables.

6. Set up Oracle Human Resources.

3.1.1.1 Setting Up AOL

The following are the various Profile Options that should be setup in Oracle Hosting Manager, 11i.

	Profile Name	Details	Mandatory	Profile Level	Comments
1.	AHM_CONTRACT_CREATION :	Profile option which can be set by the ASP to turn on/off contract creation	N	Application	AHM_CONTRACT_CREATION ='Y or N '
2.	AHM_PRICE_DISPLAY :	Profile Option for Price Display, which can be set by the ASP to turn on/off price display at the time of registration	Y	Application	AHM_PRICE_DISPLAY ='Y or N '
3.	AHM_GENERIC_TERMS_CONDITIONS :	Profile Option to indicate whether generic terms and conditions are being used.	Y	Application	AHM_GENERIC_TERMS_CONDITIONS='Y or N'
4.	AHM_PAYMENT_METHOD :	Profile Option for Payment Method (PO/CC) which can be set by the ASP to turn on/off either CC/PO payment methods	Y	Application	AHM_PAYMENT_METHOD ='CC , PO or CCPO '
5.	AHM_BOM_DISPLAY :	Profile Option for BOM Display, which can be set by the ASP to turn on/off display of BOM explosion details at the time of registration	N	Application	AHM_BOM_DISPLAY='Y or N'
6.	AHM_BILLING :	Profile Option for Billing which can be set by the ASP to turn on/off Billing for the customers when the ASP does not want to bill a customer who has chosen billable subscriptions	Y	Application	AHM_BILLING='Y or N'
7.	AHM_DEFAULT_LOGON_APPLICATION :	Profile Option to enable the ASP to define a Default Logon Application for his subscribers	Y	Application	AHM_DEFAULT_LOGON_APPLICATION = Valid 'APPLICATION_ID' from AHM_HOSTED_SVCS
8.	AHM_DEFAULT_LOGON_RESPONSIBILITY :	Profile Option to enable the ASP to define a Default Logon Responsibility for his subscribers	Y	Application	AHM_DEFAULT_LOGON_RESPONSIBILITY =Valid responsibility from FND_RESPONSIBILITY
9.	AHM_PRICE_LIST	Default Price List	Y	Application	AHM_PRICE_LIST = Valid price-list defined in QP.
10.	AHM_GENERIC_ARTICLE_SET_NAME	Profile Option to specify the Generic Article name, if Contract Articles are being used.	N	Application	AHM_GENERIC_ARTICLE_SET_NAME
11.	AHM_TC_TEMPLATE_NAME	Profile Option to specify the Generic Template name being used to display the Generic T&Cs when Contracts are not being used.	Y	Application	AHM_TC_TEMPLATE_NAME = 'Template Name'.

The following are the various Lookups that should be setup in Oracle Hosting Manager, 11i.

	Lookup Type	Details	Lookup Codes & Meaning	User/System
1.	AHM_INDUSTRY_SEGMENT	Used to define the Line of Business/Industry Segment of the Company	• RET - RETAIL • SW - SOFTWARE • HW - HARDWARE • MFG - MANUFACTURING •	User
2.	AHM_ITEM_TYPE	Used to determine whether the item being mapped to an Online Service is of type - Subscription Item or Service (for Support Coverage).	• SVC - SERVICE • SI - SUBS_ITEM	System
3.	AHM_HOSTED_SVC_STATUS	Used to define the status of the Hosted/online Service	• A - ACTIVE • I - INACTIVE	System
4.	AHM_SUBSCRIBED_SVC_STATUS	Used to define the status of the Subscribed Service	• S - SUBSCRIBED • A - ACTIVE • I - INACTIVE • T - TERMINATED • H - HOLD • R - REACTIVATE	System
5.	AHM_SUBSCRIBED_ITEM_STATUS	Used to define the status of the Subscribed Item	• S - SUBSCRIBED • A - ACTIVE • I - INACTIVE • T - TERMINATED • H - HOLD • R - REACTIVATE	System
6.				

3.1.1.2 Setting Up Oracle General Ledger

Oracle Inventory and Oracle Contracts require at least one organization (in the Multi- Org paradigm) and associated set of books to be set. The service provider should create at least one business unit in Oracle General Ledger. Please refer to the Oracle Applications Concepts for more information on business units and multi-org. Please refer to the Oracle General Ledger User Guide for information on setting up business units. The service provider should also perform the following tasks when setting up Oracle General Ledger:

-- Define a chart of accounts in Oracle General Ledger, with a value set, an Accounting Flexfield Structure, and segments and segment values.

-- Define a calendar.

-- Define and enable currencies.

-- Define a set of books.

Refer to the Oracle General Ledger User Guide for information on performing these tasks.

3.1.1.3 Setting Up Items in Oracle Inventory

Oracle Inventory serves as the repository of Subscription items and Service items (also referred to as Support Coverages) that can be sold through Oracle Hosting Manager 11i. Please refer to the Oracle Inventory forms to create new Subscription and Service items. Before the service provider can create items in the Oracle Inventory system, they should set and define the structure around it.

A Subscription Item is an item of item type "Subscription Item" in Oracle Inventory. Subscription Items that the service provider wants to offer should be defined in the item master in Oracle Inventory. Subscription Item attributes are as follows:

-- Serviceable product flat = 'Y'

-- Subscription Item flag = 'Y'

-- Installed Base = 'Y'

Support Coverage refers to type of Support Coverage chosen for the Subscription Item. A support coverage is a Service Item in Oracle Inventory and should be defined in the items master. The service item attributes are as follows:

-- Service Item Flag = 'Y'

Refer to Oracle Inventory User's Guide for details of inventory setup.

3.1.1.4 Setting Up Oracle Pricing

Setting up Oracle Pricing is required for each item that the service provider plans to offer as services in Oracle Hosting Manager 11i. The service provider must specify the price in at least one price list and make that price list available to customers.

In the current release, OHM only supports Flat-fee based pricing i.e. hosting customers will be charged a flat fee equivalent to the price of the subscription item used.

In the current release, Oracle Hosting Manager picks a default price list to show the price of items on the Service Selection (service provider's Online Services catalog) page. The default price list to be used is specified in the Oracle Hosting Manager Price-List profile (see Oracle Hosting Manager Setup for more details). Refer to the Oracle Pricing User's Guide for information on how to define Price-Lists and price the required items therein.

3.1.1.5 Setting Up Oracle Receivables

Oracle Hosting Manager 11i uses the Oracle Receivables module to record customer information and tell customers about their invoices and payments made. Please refer to the Oracle Receivables User's Guide for information on setting up Oracle Receivables.

Customer registration information is maintained in the TCA / Oracle Receivables

schema. At a minimum, the service provider should set up the following:

1. Address and territory flexfields

2. Address validation

3. Tax codes and the default tax code

4. Tax locations and rates

5. Tax groups

6. Tax exceptions

3.1.1.6 Setting Up Oracle Human Resources

The service provider should perform the following tasks when setting up Oracle Human Resources:

1. Set the profile option HR: User Type at the application and Global HRMS Manager responsiblity levels. This profile option is required for accessing the work structures.

2. Define a Business Group.

3. Define locations.

4. Define a legal entity and operating unit.

5. Define employees.

6. Defining a user for Registration

Refer to the Oracle HRMS Implementation Guide- The Fundamentals for information on how to perform these tasks. Installation and setup of Oracle Human Resources is also a prerequisite to the Oracle Hosting Manager 11i functionality

3.1.1.7 Setting Oracle Workflow Notifications

Oracle Hosting Manager uses the built-in notifications feature that is available in Oracle Workflow version 2.5. Workflow will be installed during rapid install.

Please refer to the Oracle Workflow User's Guide for clarications on setup steps for Oracle Workflow. The Oracle Workflow User's Guide also has instructions on setting up notifications and starting the concurrent manager processes that sends out notifications.

3.1.1.8 Setup Steps for the Registration User:

1. A user with the responsibility (primary user) to access the registration pages should to be created. The primary user is the person who registers a hosting customer with the service providers using the Registration pages. The primary user logs into OHM as the Registration User userid that is created in this process. The User Definition form should be used to define the userid for the Regisration User. The OHM Business Prospect responsibility should to be tied to this userid.

2. After the user has been created, the Userid and Password should be noted, as these will be required for setting up two profile options. The Userid and password should to be tied to the profiles AHM_REG_USER, and the AHM_REG_USER_ PASSWD respectively.

3. The newly created registration user should to log in through jtflogin. When logging in for the first time, the user is asked to set the default responsibility to OHM Business Prospect, after which he/she should log out. When he/she accesses the registration pages, the menu structure corresponding to the OHM Business Prospect responsibility will be rendered.

3.1.1.9 Flexfield Support in Oracle Hosting Manager

In order to capture additional information currently in OHM product, flexfield support is provided in following pages:

-- Business Administrator Registration Page (ahmRegAdmin.jsp) - Customer Information(HZ_PARTIES)

-- Business Registration Page (ahmRegBusiness.jsp) - Customer Information(HZ_ PARTIES)

Prerequisities:

The flexfield "Customer Information" should be frozen. In order to render the flexfield in JSP, the flexfield name has been hard coded. If the flexfield is not frozen and user tries to load the JSP mentioned above it may result in JSP error.

Troubleshooting :

Once the flexfield structure is frozen, the service provider should bounce the JVM port in order to reflect the changes.

3.2 Optional Dependencies:

In addition to mandatory dependencies, Oracle Hosting Manager 11i also depends upon the following modules to provide additional functionality:

1. Oracle BOM - for Subscription Items with BOM-like structure, Oracle Bill of Materials shuold be setup. (Not supported in Release 11.5.6)

2. Oracle Contracts - for Subscription-based billing and Contract Integration. (Not supported in Release 11.5.6)

3. Oracle Installed Base - for Usage-based billing, the Counters defined for all the Subscription Items, which are slated for Usage based billing, are updated here. (Not supported in Release 11.5.6)

5. Oracle Service - for defining counters used in Usage-based billing. (Not supported in Release 11.5.6)

3.3 Setting Up Online Services

Prerequisites

1. Setup Subscription and Service (Support Coverages) Items in Oracle Inventory.

2.Set up price lists, List prices and currencies in Oracle Pricing

3.4 Implementation Planning:

Every implementation of Oracle Hosting Manager involves a planning phase where in key issues on the various parameters that are going to define the implementation will be decided. Since this is a one-time process and many of the steps involved are irreversible, the steps in the planning process should be taken up with utmost care.

The ASP administrator has to plan on several aspects of how he/she is going to implement Oracle Hosting Manager. The following are the decisions that go into

1. How many services is the ASP going to host for its subscription customers?

2. What are all the Support Coverages (Service Level Agreement) that the ASP will offer its subscription customers?

3. What way to rank the OHM-seeded rules i.e. among, Geographical location, SLA selection and the number of users that which is the rule the ASP should rank, if at all, and what rank to grant. The rank that the ASP administrator grants the rules will decide how the Rules engine functions and what recommendations for target databases the Rules Engine makes to new prospective subscription customers.

4. What will be the default responsibility for the various hosted services to be granted to the primary user (superuser) of the subscription customer?

5. How many hosting databases to have for hosting applications? Also, what all services to host on which database?

6. What Databases on what hardware should have which online services setup?

7. How many subscription customers to have on each of the hosting databases?

8. How many industry verticals (applications customized to specific industry like automobile, legal services etc.) will the ASP support?

9. What all tables in application modules being hosted should be local (striped) as against global?

10. How should the seeded rules that OHM provides, Geographical location, SLA selection and the number of users of the subscription customers, be ranked?

The service provider administrator/s have to get input from all levels of their management and technical staff in coming up with decisions on each of the above-mentioned issues. Once these decisions are made, the service provider administrator can proceed to the next step in the implementation of OHM.

This compeltes the planning phase of the Oracle Hosting Manager implementation. This next chapter describes the business flows for eBusiness suite setup of modules that Oracle Hosting Master has dependencies on.

4

eBusiness Setup for Oracle Hosting Manager

This chapter describes the business flows for eBusiness suite installation and setup of appropriate modules on the OHM-Master database and on the Hosting Database.

Oracle Hosting Manager implementation flow can be broken into two parts. The first is the generic installation of the eBusiness Suite (which also installs Oracle Hosting Manager) and setup of modules that Oracle Hosting Manager has dependencies on. The second is the setup of Oracle Hosting Manager itself done in Oracle Hosting Manager screens. This chapter covers the first part.

The service provider will be required to use the decisions made during the planning phase (as was outlined in chapter 3) for the implementation processes of this phase.

4.1 Generic eBusiness Suite Installation & Setup

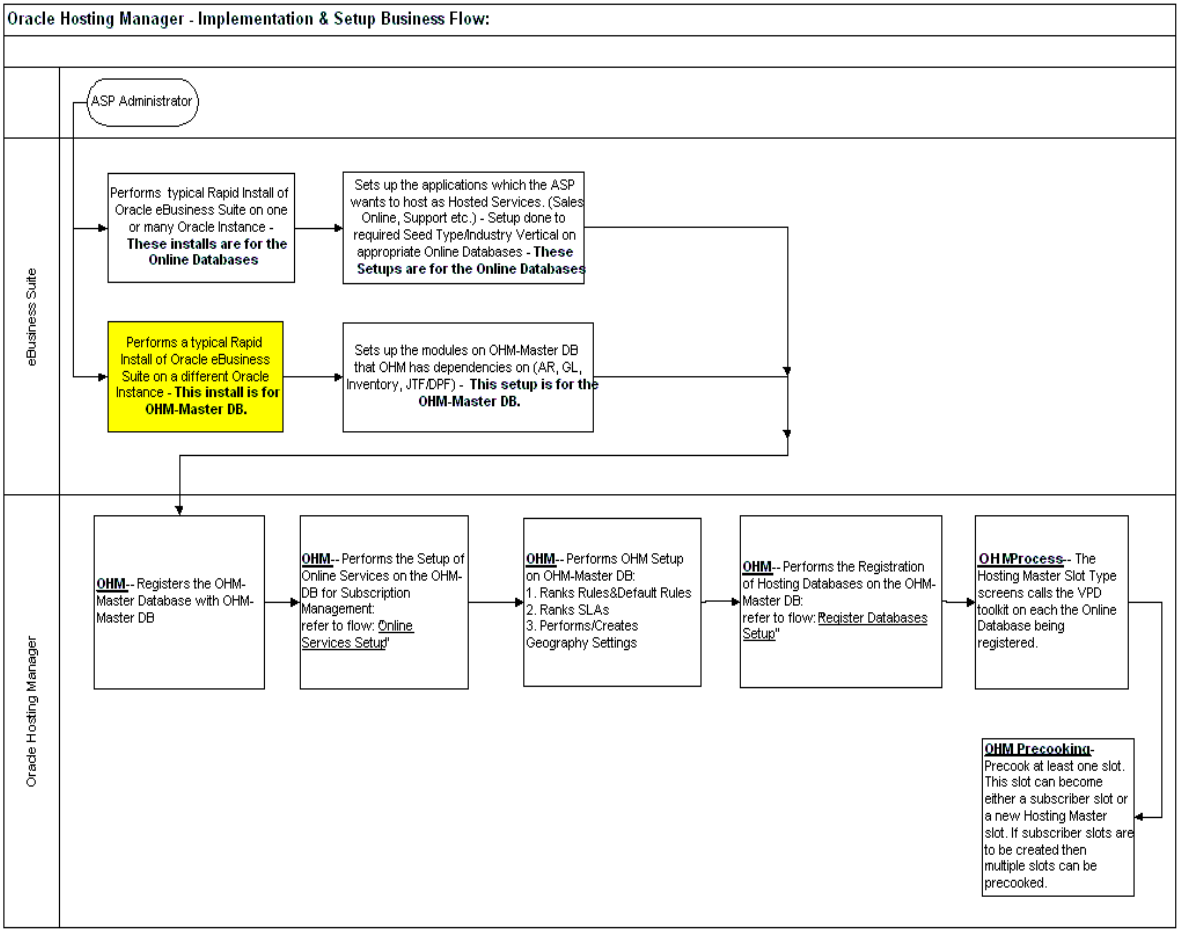
The service provider has to perform rapid installs and setups for both, the OHM-Master database and the Hosting databases. The installation and setup on the OHM-Master database and on all the hosting master databases can happen in parallel as these activities are non-intrusive. This is also the reason why these activities are shown in parallel even int he Implementation Flow diagram.

The business-flow diagram below shows the OHM Implementation & Setup Business flow processes. At each step, the process in the flow being discussed will be highlighted.

4.1.1 eBusiness Suite Rapid Install on the OHM-Master Database

The service provider performs a typical rapid install of the eBusiness suite on the OHM-Master database.

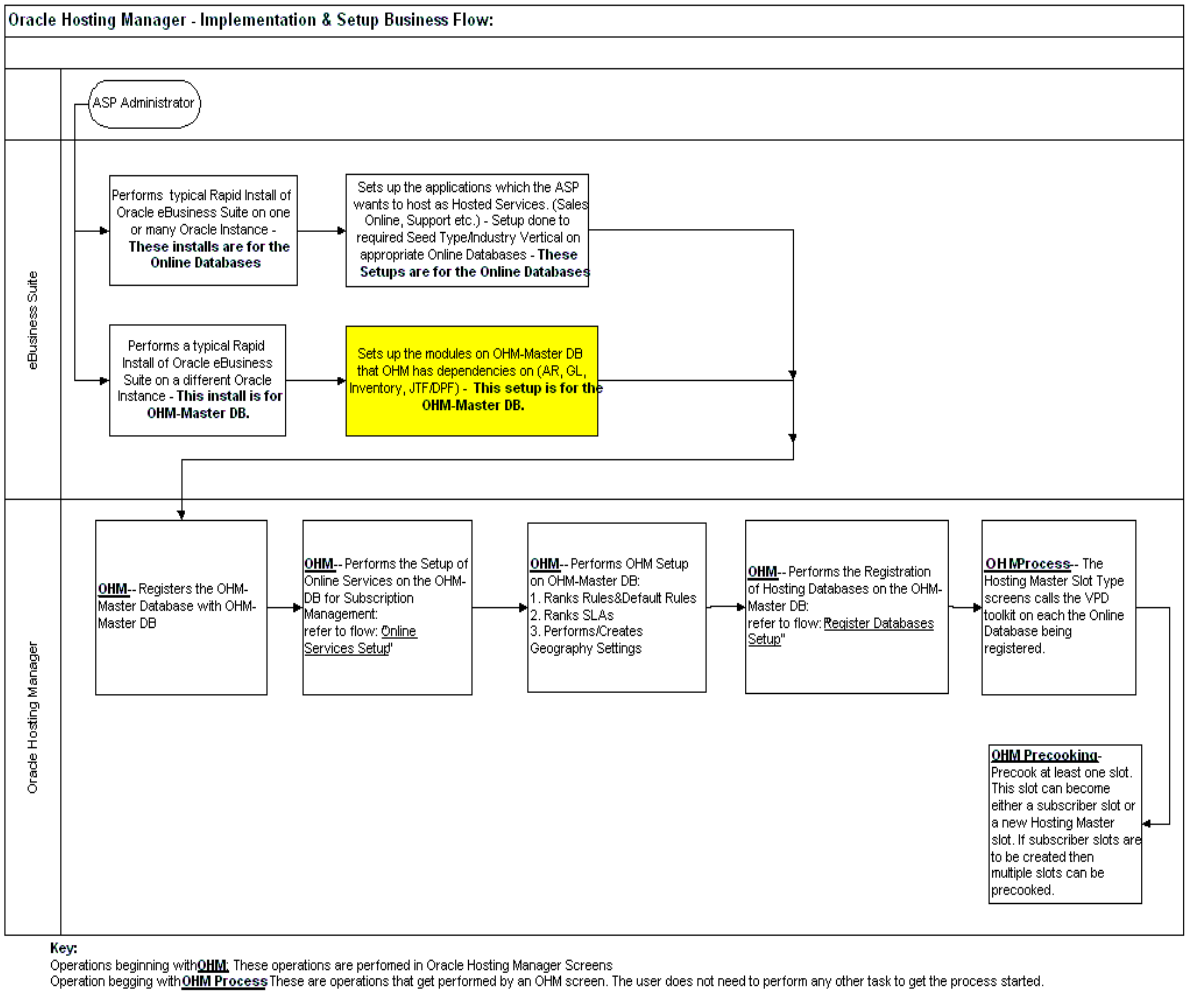
This process has been highlighted in the OHM Implementation Flow diagram.



4.1.2 Setup of OHM dependent modules on the OHM-Master Database

The modules in the Oracle eBusiness suite that the OHM has dependencies on are setup on the OHM-Master database. These dependencies have been outlined in the chapter 3,"Before You Begin" of this Implementation Guide. This is the step where all the dependencies and their setup mentioned in chapter 3 should be performed on the OHM-Master database.

This process has been highlighted in the OHM Implementation Flow diagram.

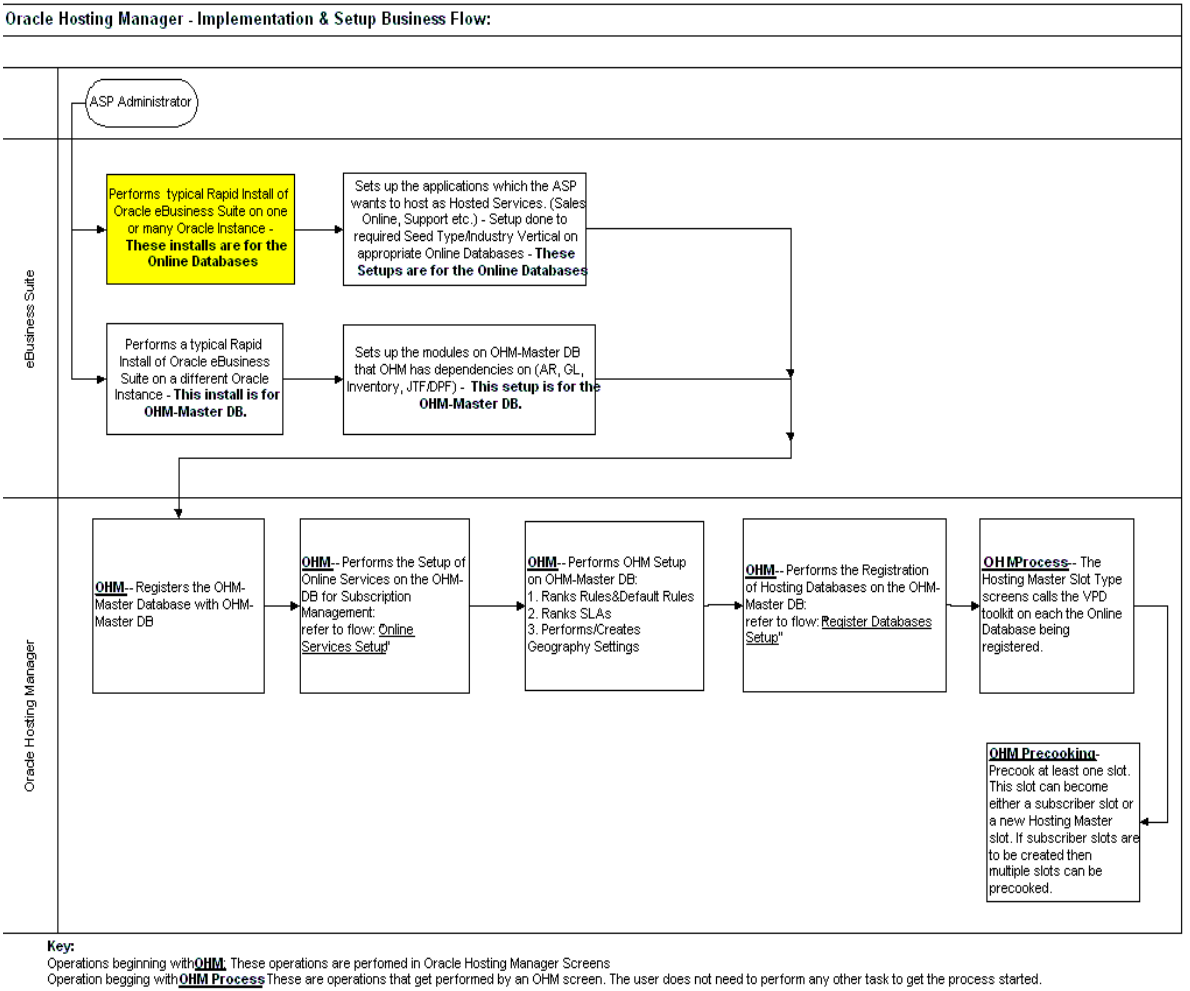


Key:
Operations beginning with **OHM:** These operations are performed in Oracle Hosting Manager Screens
Operation begging with **OHM Process** These are operations that get performed by an OHM screen. The user does not need to perform any other task to get the process started.

4.1.3 eBusiness Suite Rapid Install on Each of the Hosting Database Instances

Before initiating this phase, the service provider should have already decided on the number of Oracle 8i/9i database instances that will be needed as hosting databases. Similar as in the step 4.2.1, the service provider performs a typical eBusiness suite install for each of the hosting databases

This process has been highlighted in the OHM Implementation Flow diagram.

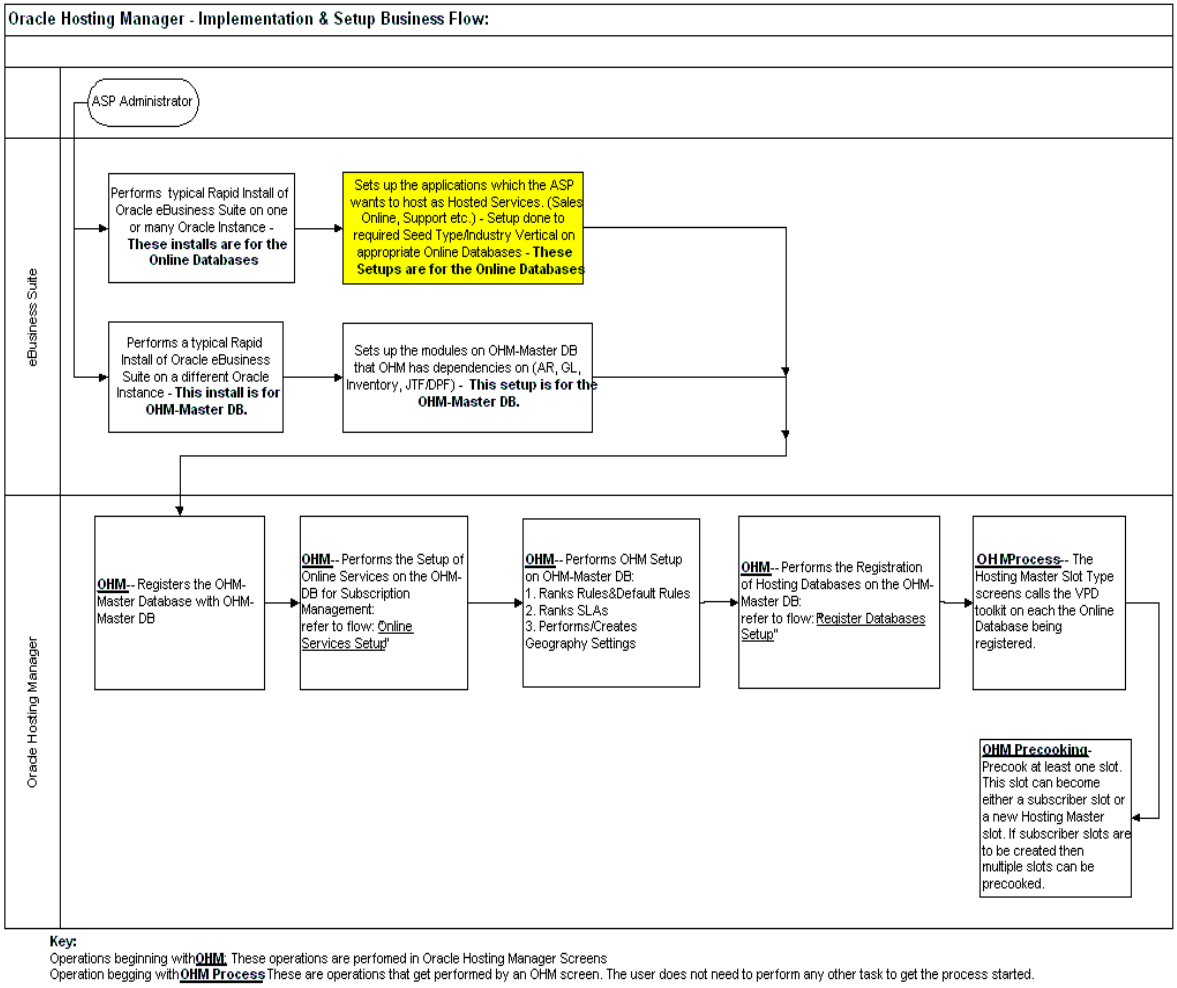


4.1.4 Setup of eBusiness Applications on the Hosting Databases

The Service Provide hasto setup all the modules in the eBusiness Suite that are to be offered as hosting services on the hosting databases. For example, the service provider may decide to host SalesOnline on each of the hosting databases, but SuportOnline only on 3 specific databases. In this case, the service provider should

setup SalesOnline on all the hosting databases and SupportOnline only on the 3 specified databases.

This process has been highlighted in the OHM Implementation Flow diagram.



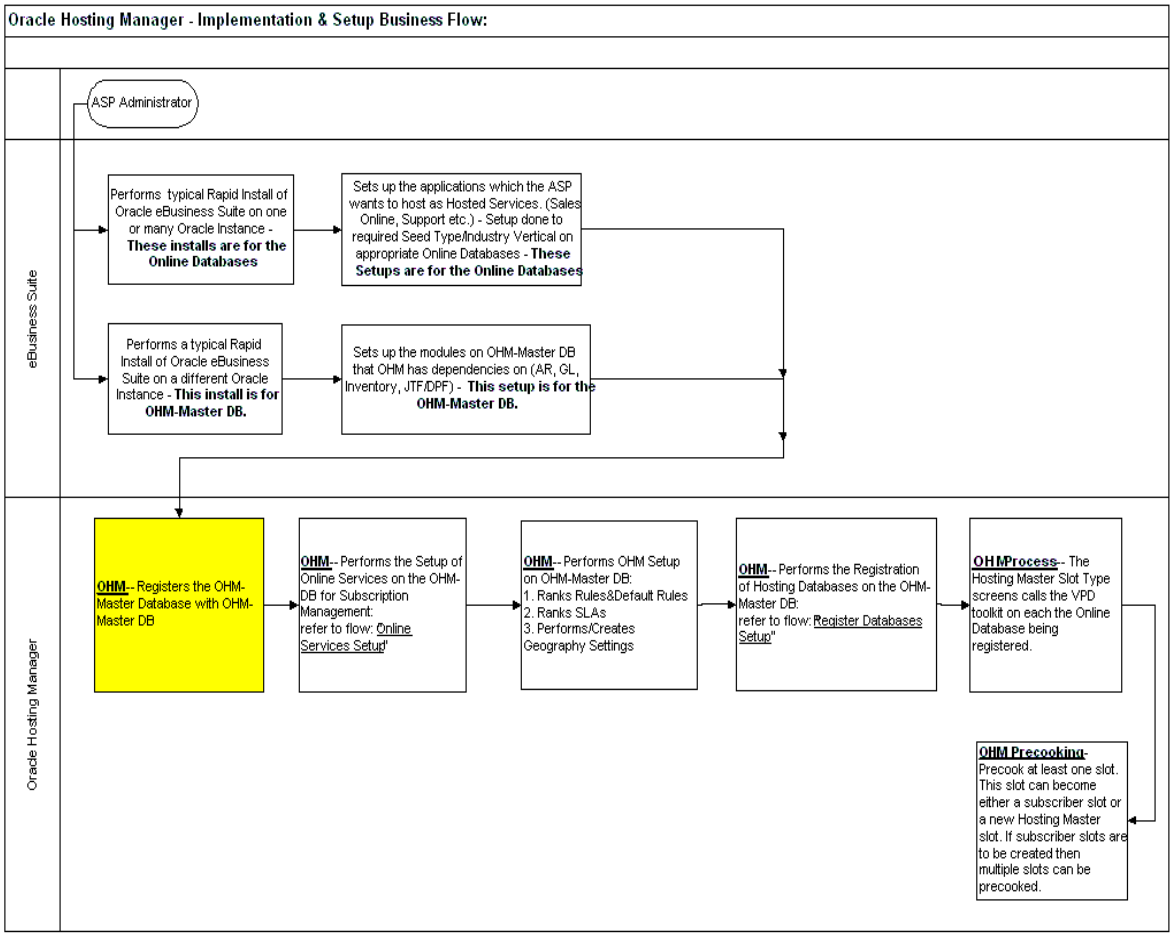
This completes the setup for the eBusiness Suite required by Oracle Hosting Manager Implementation business flow. The next chapter will delve into details of OHM-Master database registration.

5

OHM-Master Database Registration

The chapter describes the OHM-Master database registration setup processes. All the setup done for Oracle Hosting Master from here onwards is performed by physically logging into the OHM-Master database.

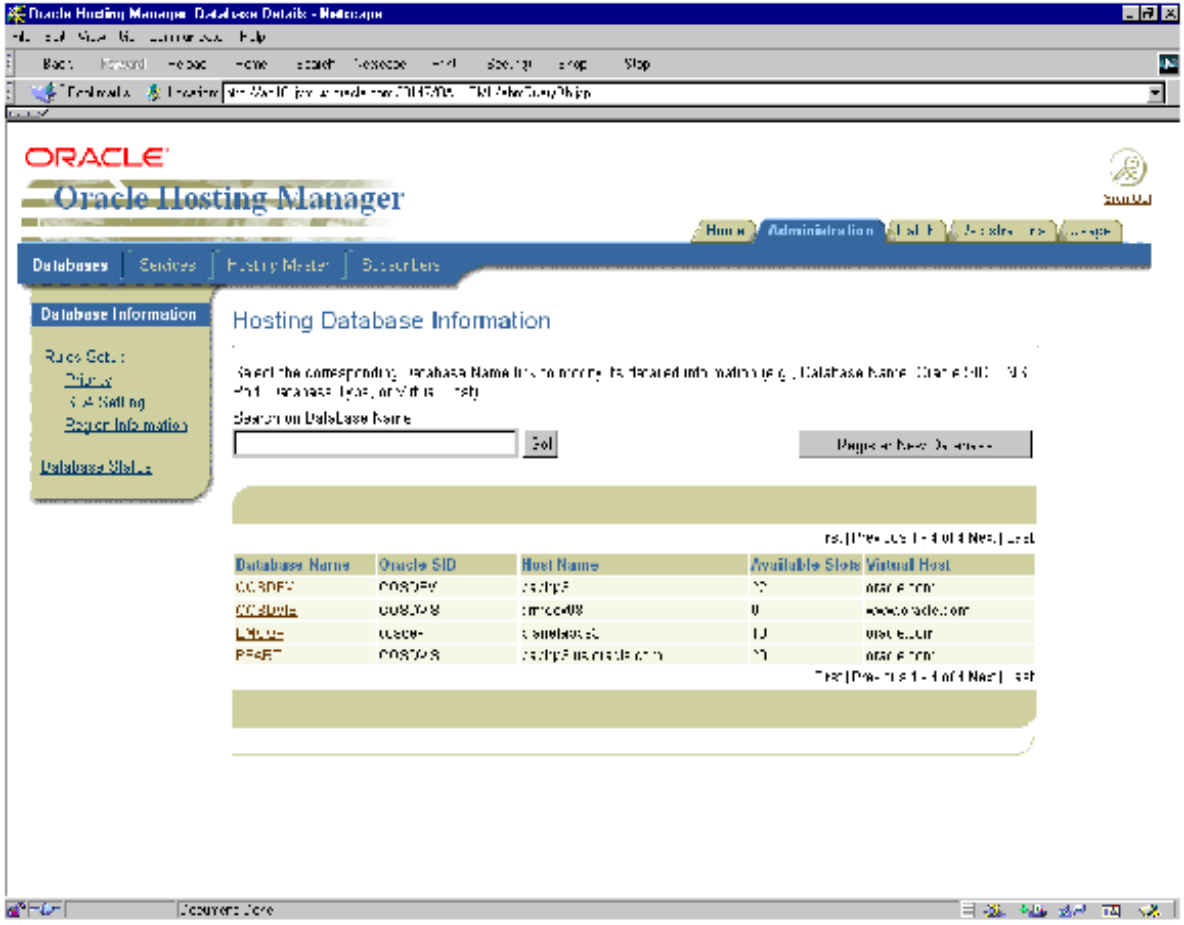
The OHM-Master database keeps a registry of all the database - the hosting databases and also the OHM-Master database. The registration of the OHM-Master database with OHM is discussed in this chapter. The process of registering the hosting databases will be discussed in the chapter 8 of this implementation guide. This process has been highlighted in the OHM Implementation Flow diagram.



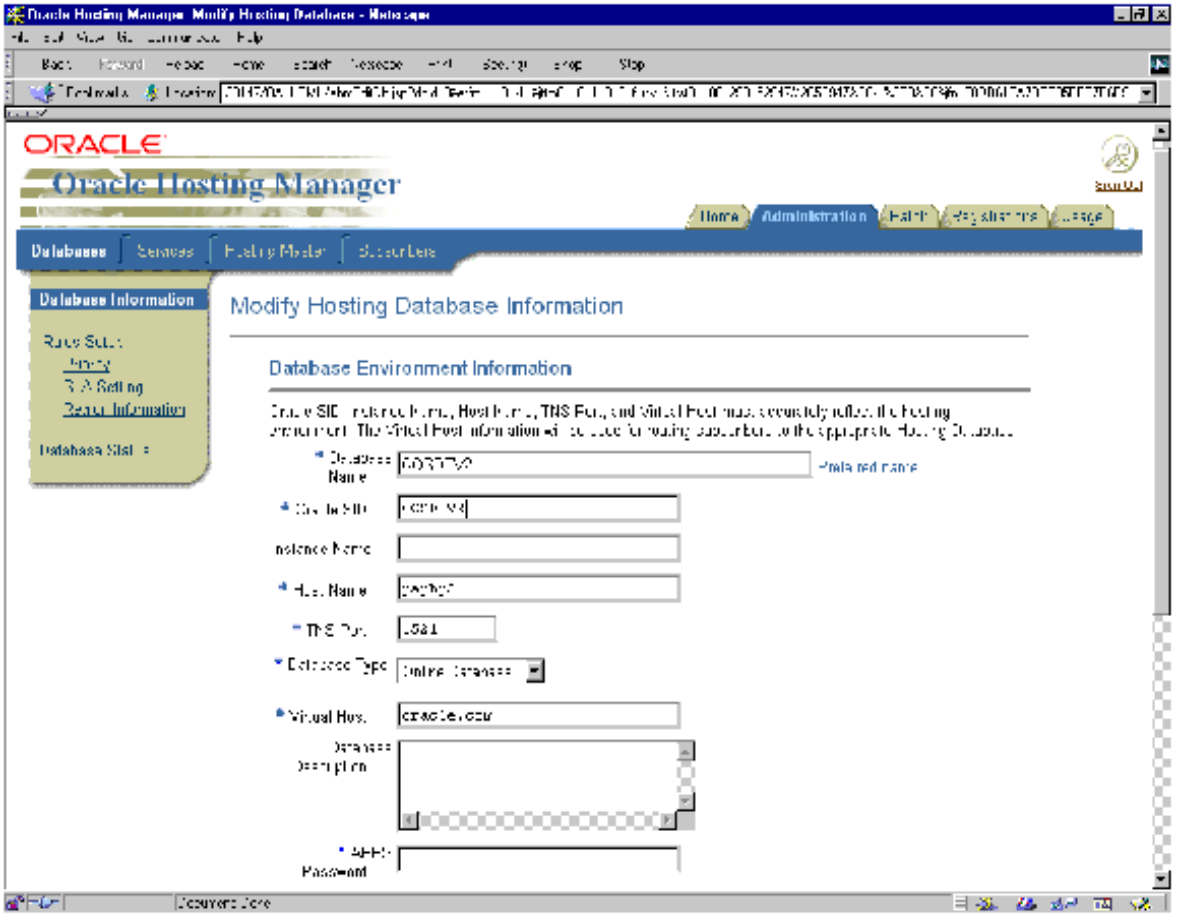
5.1 Hosting Databases Summary

To begin with the registration process, the service provider should start with the Hosting Databases Information screen. To access the Databases Information screen, navigate to the following path in the IT Administrator responsibility in OHM:

Administration --> Databases --> Database Information tab



This screen gives the service provider a summary of the all the databases that have been priviously registered with OHM. However, since the OHM-Master database registration is the very first step in the OHM setup, this screen will not show any records no databases have been registered with OHM as yet. To register a new database, the service provider should click on the "Register New databases button". This takes the user to the "Register New Databases" screen. To change the information on any of the databases already registered with OHM, the service provider should select the name of the databases that appear as hyperlink. This hyperlink takes the user to the "Modify Hosting Database Information" that is very similar to the "Register new Database" screen.



For registering the OHM-Master, the service provider has to ensure that he/she selects "OHM Master" in the database type field. The service provider should enter the connect information for the OHM-Master database like the Port, the hostname for the OHM-Master database and the password for the "apps" user. The user should then saves this information .

This completes the OHM-Master database registration processes of Oracle Hosting Manager Implementation Setup business flow. The next chapter explains the details of processes of creating online services.

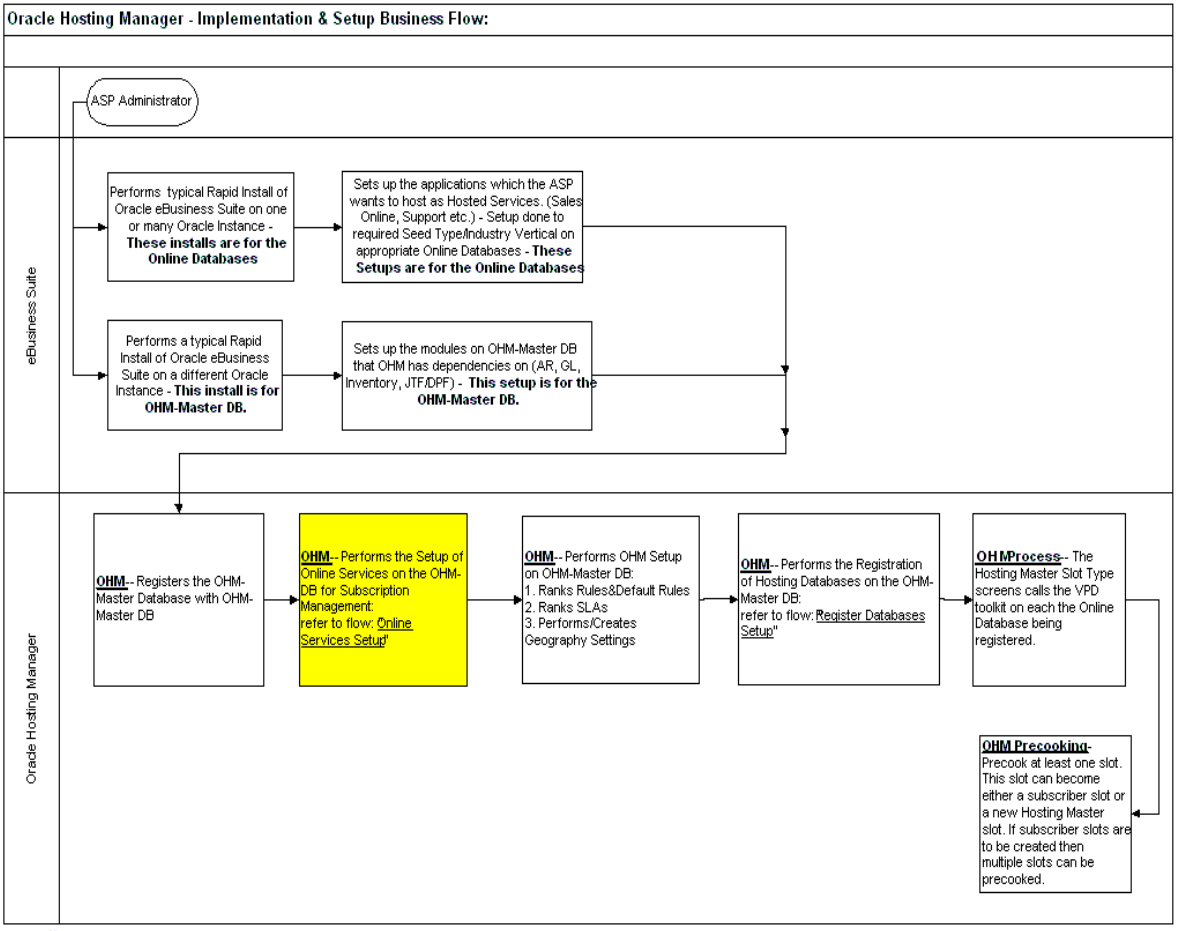
6

Subscription Services Setup

This chapter deals with the setting up of hosting services. The steps outlined in this chapter are to be performed on the OHM-Master Database in Oracle Hosting Manager setup screens.

6.1 Subscription Management Services Setup

Oracle Hosting Manager supports the definition of online or hosted Services. Services offered by an ASP (Application Service Provider) are referred to as Online or Hosted Services in Oracle Hosting Manager, 11i. The ASP Administrator can setup up the Online Services that are offered. The process of setting up subscription services has been hightled in the Oracle Hosting Manager implementation business flow:



6.2 Online Services Summary

Certain prerequisites step for setting up Online Service should be performed by the service provider. They are:

-- Setting the Subscription and Service (Support Coverage) Items that will be offered under this Online Service in Oracle Inventory.

-- Setting the price lists, List prices and currencies in Oracle Pricing for the Subscription Items and Service Items.

In order to setup Hosted Services, the ASP Administrator should log either as "AHM Business Manager" responsibility or the IT Administrator responsibility. The following menu selection should be used:

Administration --> Services --> Online Service Search :

The screen that shows up is a summary of all the services that the ASP administrator has already setup. The ASP administrator can drill down into details of each of the online services by selecting the hyperlink for each of the online services.

Oracle Hosting Manager 11i enables the ASP Administrator to search for Online Services previously created by him based on name, status, description. Previously created Online Services can be edited or new Online Services can be created.

6.3 Setting Up Online Services:

Registration of Online Services that the service provider wants to provide their customers is divided into two steps:

1. Creation / Registration of Hosting Services

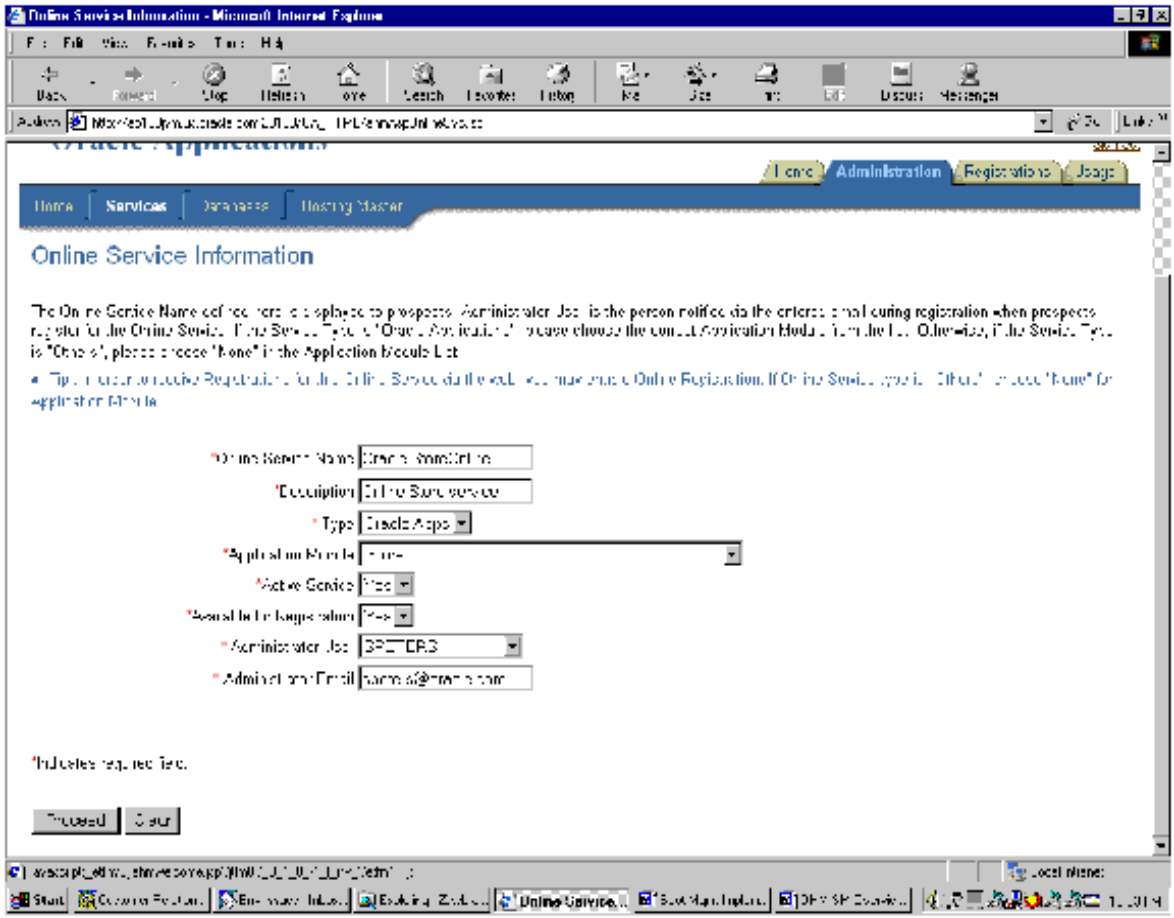
2. Online Service Item Association

3. Details on the Associated Item

Each of these steps will be discussed in the following sections.

6.3.1 Creation of Online Service :

The following screen is displayed for creating new services.



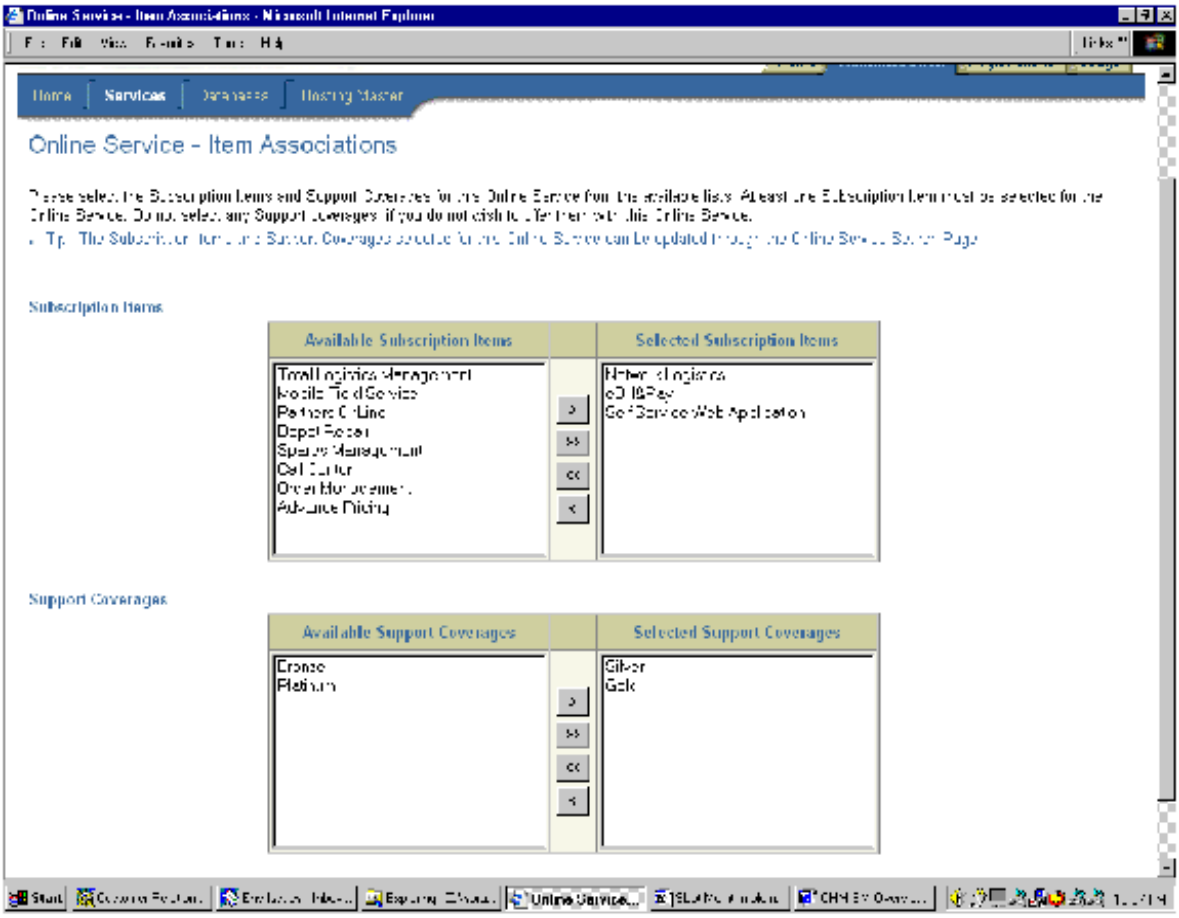
Here the service provider has to provide a name for the new online service and provide a description for it. A hosted service may map to an existing Oracle

Application module like SalesOnline, iSupport, iStore, etc, or may be non-Oracle Applications like iLearning, Oracle Mobile, etc. If the service is an Oracle eBusines sSuite module then the type for the service should be entered as "Oracle Apps". The service provider has to choose the relevant module like 'iStore', 'iSupport', etc. For services not based on Oracle eBusiness suite then the type of service should be entered as 'None'. Online Services can have either an 'Active' or 'Inactive' status depending on whether the service provider is offering these services or not. Only 'Active' Online Services are offered to Subscribers.

The service provider has to enter information on whether the online service being created is to be displayed. The Web Display field is used for this. The Web Display field determines whether the service is available to subscribers at the time of Registration or Service Selection in Account Maintenance. It applies only to Active services, as Inactive services will never be displayed. For example, when a service is being phased out, it has subscribers using it currently, but no new subscribers should be allowed to subscribe to the same. In this situation, the Service is active, but it can have web display set to 'No' and it will not be displayed to subscribers at the time of Registration or Service Selection in Account Maintenance.

Each Online service requires a designated Administrator User responsible for managing the service. All Administrator Users should to be defined as an employee of the service provider. The Administrator's email address should also be entered. The administrator will receive email notifications when Subscribers register for the service(s) being administered by him / her.

6.3.2 Online Service Item Associations



Online Services can be associated with Subscription Items. This association suggests that the Online service being defined offers the selected Subscription Items and support coverages. An Online Service shoud have atleast one Subscription Item associated with it. Support coverage are not always required to be offered by an Online service and therefore are optional.

Subscription Item is a new item type recognized in Oracle Inventory andshould be defined in the item Master. Main subscription item attributes are as follows -

-- Serviceable product flag = 'Y'

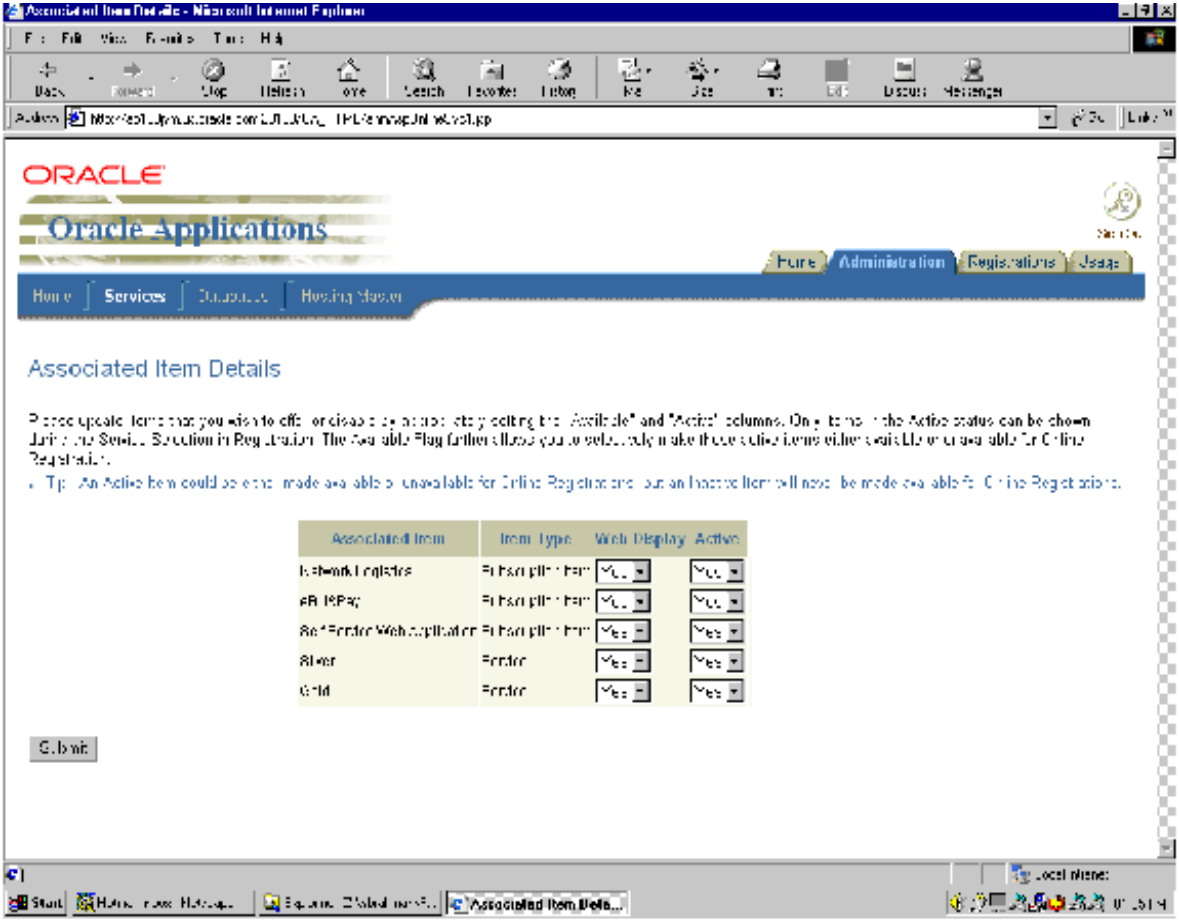
-- Subscription Item flag = 'Y'

-- Installed Base = 'Y'

The service provider has to associate Support Coverage for the online service being created. The Support Coverage (SLA) refers to the type of Support coverage chosen for the Subscription Item. For example, Platinum, Gold, Silver, Bronze etc. A support coverage is a Service Item in Oracle Inventory and should be defined in the items Master. The service Item should have the following attribute set to it:

-- Service Item flag = 'Y'

6.3.3 Associated Item Details



The Subscription Items and Support coverages associated with an Online Service can be set as "Active" or "Inactive" and can be flagged Web Displayable, either as "Yes" or "No".

Subscription Items and Support Coverages can have either an 'Active' or 'Inactive' status depending on if the service provider is offering the said Subscriptions and Support Coverages. Subscription Items and Support Coverages with status "Active" are displayed to Subscribers during registration as service offering.

As was in the case of Online services, the Web Display field determines whether a Subscription items and Support Coverage are available to subscribers at the time of Registration. It applies only to Subscription items or Support Coverages in the "Active" status, as Subscription items or Support Coverage in the "Inactive" status will never be displayed. For example, when Subscription items or Support Coverage are being phased out, it has subscribers using it currently, but no new subscribers should be allowed to subscribe to the same. In this situation, the Subscription items and Support Coverage are active, but they can have their web display attribute set to 'No' . In this case, they will not be displayed to subscribers at the time of Registration or Service Selection in Account Maintenance. This is the last step in creating an Online Service and clicking the Submit button on this screen creates the Online Service. The Online Services created in this manner, can be edited through the Online Service Search screen.

This completes the setup for the Hosting Services. The next chapter deals with OHM rules setup and assignment.

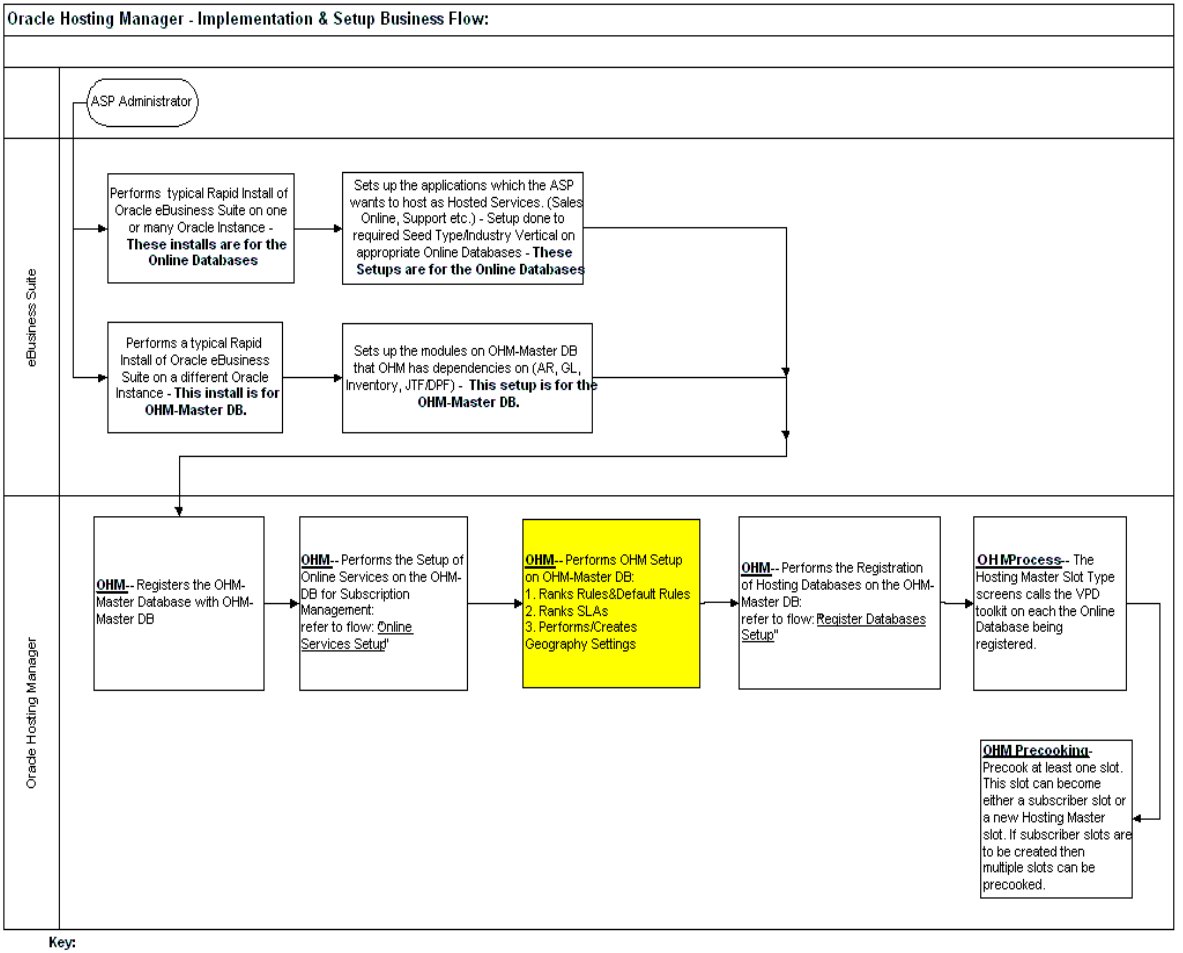
7

Oracle Hosting Manager Rules Setup

This chapter describes the steps for Oracle Hosting Manager Rules setup. All the setup steps explained in this chapter are performed on the OHM-Master database and are done in Oracle Hosting Manager setup screens.

7.1 Setup done in OHM screens on the OHM-Master Database

This process has been highlighted in the OHM Implementation Flow diagram.



The Service Provider administrator can get recommendations for the most optimal Database for a new customer to be allocated a slot on. The recommendations are based on the ranks set to the 3 rules which OHM provides. The 3 rules are:

-- Service Level Agreement (SLA) selected by the customer,

-- the location of the customer and

-- the number of users that customer has.

This step of the implementation can be subdivided into three activities. The three activities and the order in which they are to be performed are:

1. Ranking of Rules

2. SLA (Service Coverage) Settings

3. Regions Settings

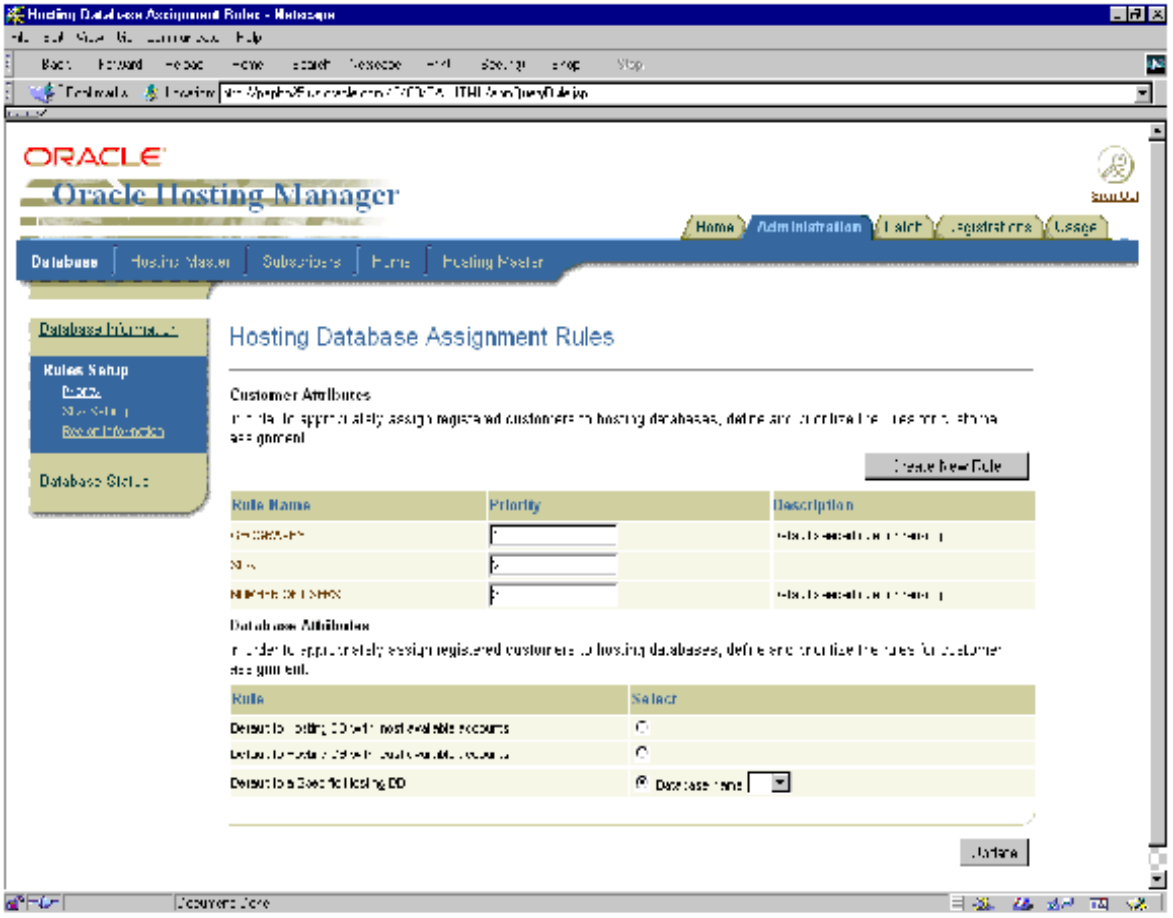
The folowing sections will go through the details of each of these setups.

7.1.1 Rank Rules:

The first step is to rank the three rules in Oracle Hosting Manager. Based on the ranking of the three assignment rules, OHM provides recommendations for the best target hosting database for prospective customers. The Service Provider administrator may or may not rank all the seeded rules. The service provider should also select a default rule. The default rule is used as a tiebreaker, in case a single target hosting database cannot be recommended.

To access this screen, navigate to the following path when logged in as the IT Administrator responsibility in OHM:

Administration --> Databases --> Rules Setup (Priority)



As an example, in the above screen, the Service Provider has setup the ranks in the following manner. The Service Provider has attributed the Geography rule the rank of 1 (the highest and hence the most important). The Service Coverage (SLA rule) has been given the rank of 2 (moderately important) and finally, the number of users rule a rank of 3 (the least important criteria).

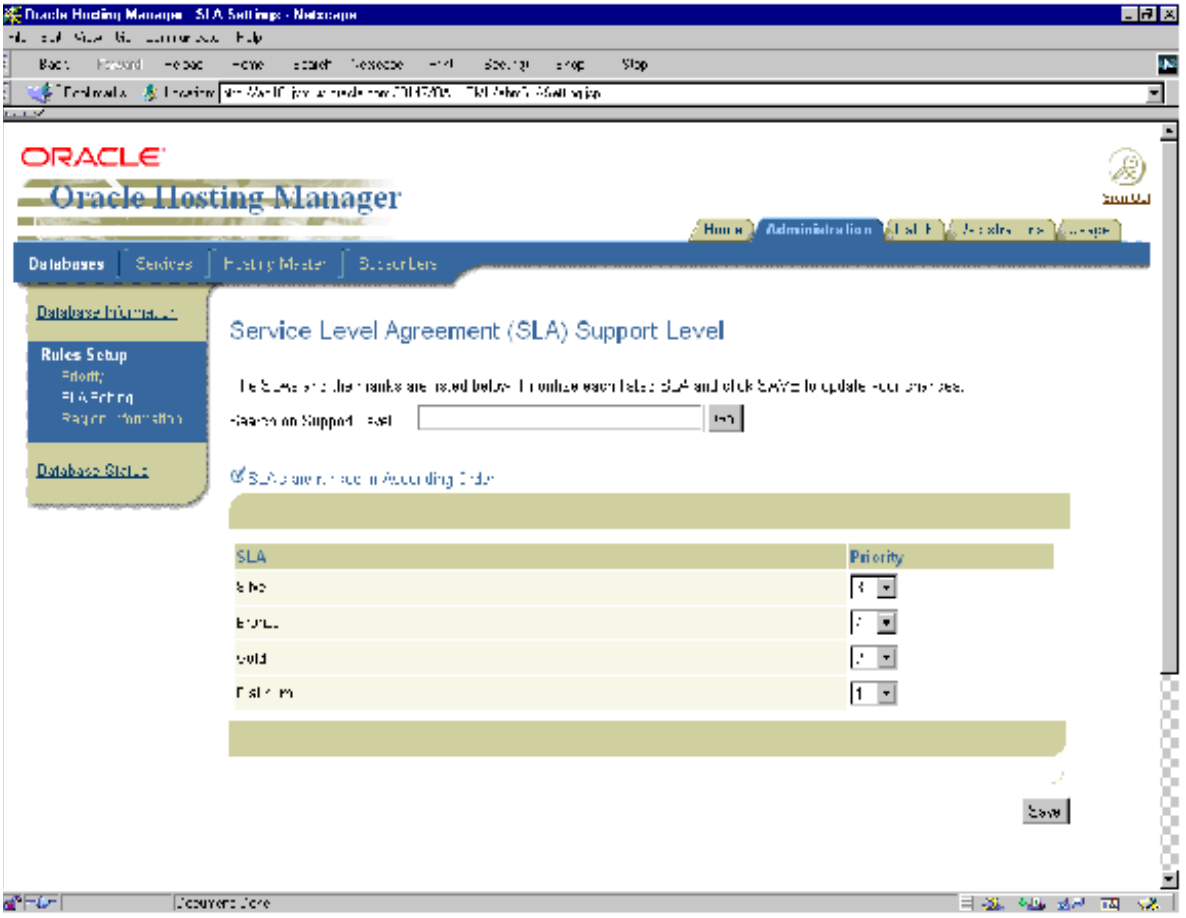
The Service Provider administrator has also selected the Default rule to default to the hosting database with least number of remaining accounts. With this default rule setup, the database with the least number of available accouints will be recommended from narrowed list of target databases based on the 3 ranked rules.

7.1.2 SLA Settings:

Service Coverage (SLAs) are defined in Oracle Inventory as a part of Oracle Hosting Manager Implementation. Setting up of SLAs has been explained in chapter 3. The service provider is free to define as many SLAs as they want. Once the SLAs have been created, the service provider has to rank the SLAs in terms of their support levels. SLAs with the highest support level requirement should be ranked the highest.

To access this screen, navigate to the following path in the IT Administrator responsibility in OHM:

Administration --> Databases --> Rules Setup (SLA Setting)



By ranking the SLAs in the way as shown above, the Service Provider administrator is specifying that the Platinum SLA is the most important SLA and that it demands the highest level of service. Therefore, the customers that selects the Platinum SLA should receive the highest level of service from the service provider. The Bronze SLA is the least important in terms of allocating databases. Therefore, the customer that selects the Bronze SLA coverage may receive the lowest level (lower than for Gold & Silver) of service.

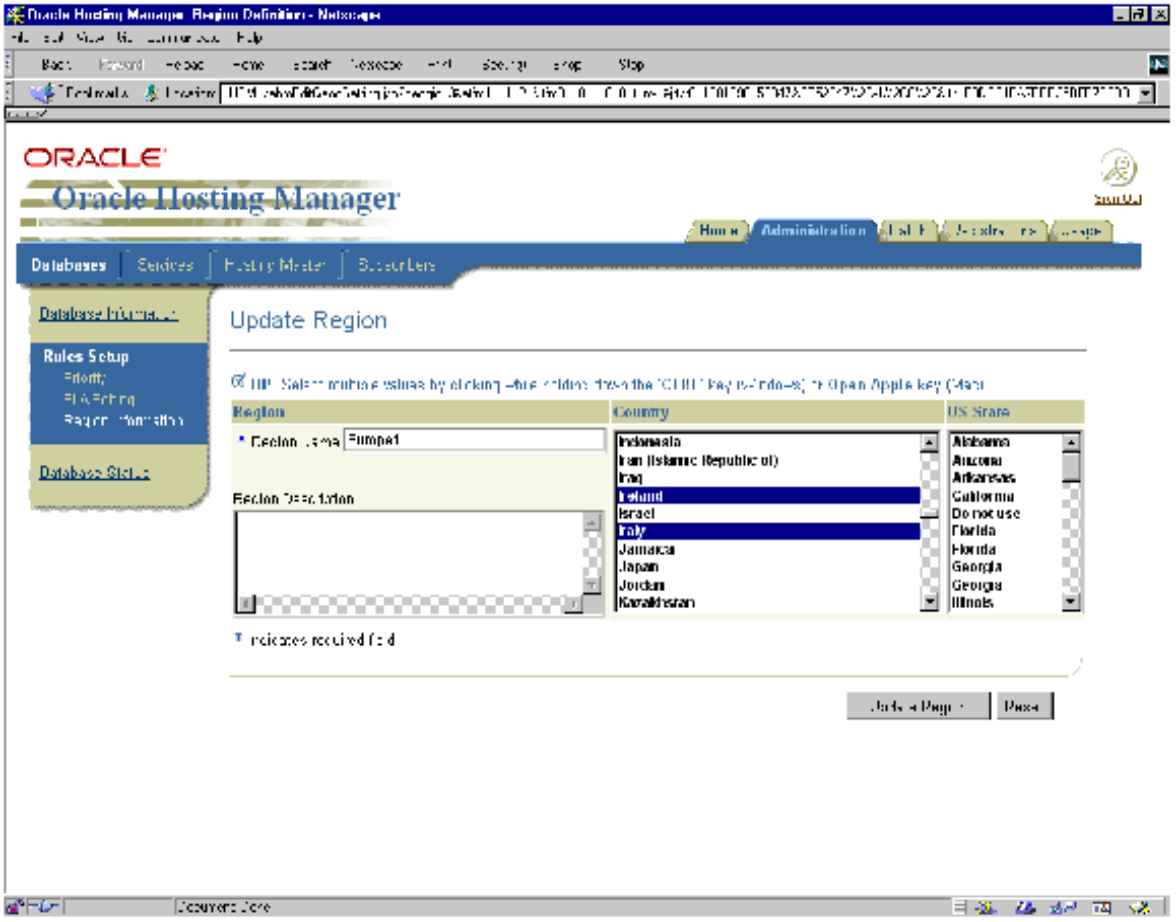
7.1.3 Geography/Region Settings:

The next step is to create Geography Settings or Regions Settings. In the Oracle eBusiness Suite, Territories have already are created in AR. The Service Provider administrator clusters a bunch of related territories (countries in the world and US states) based on their business practice into a logical entity, Geography Setting.

To access this screen, navigate to the following path in the IT Administrator responsibility in OHM:

Administration --> Databases --> Rules Setup (Geography Setting)

In the summary screen that shows up, click the "Create New Region" button to access the Geography Setting Creation screen.



As shown above, the user has created a region (geography setting), "Europe1" and has selected certain countries like Italy and Ireland to represent it.

The Service Provider administrator may create any number of geography settings so long as there is no overlap among the settings. As an example shown above, the Service Provider administrator has a Geography Setting called Europe1 that has Italy in it. The Service Provider administrator should not assign Italy in any other Geography Setting. The assumption is that the Service Provider administrator will create a few Geography Settings and with these all the countries and US States should belong to at least one of the Geography Settings. However, if it does happen that the Service Provider administrator does not associate a particular territory with

a Geography Setting, then for a customer originating with that territory, OHM will ignore the Geography Rule. In such a case, the recommendation will be based on the other two rules. This can be a problem if the Geography rule is highest ranked. In this case, the Recommendation Engine will make recommendations that may not be the best fit for the customer as the highest ranked rules is overlooked in this scenario. This example highlights the fact that proper configuration of the rules is essential for Oracle Hosting Manager to make the most optimal recommendations.

This completes the processes involved in the rules setup for Oracle Hosting Manager.

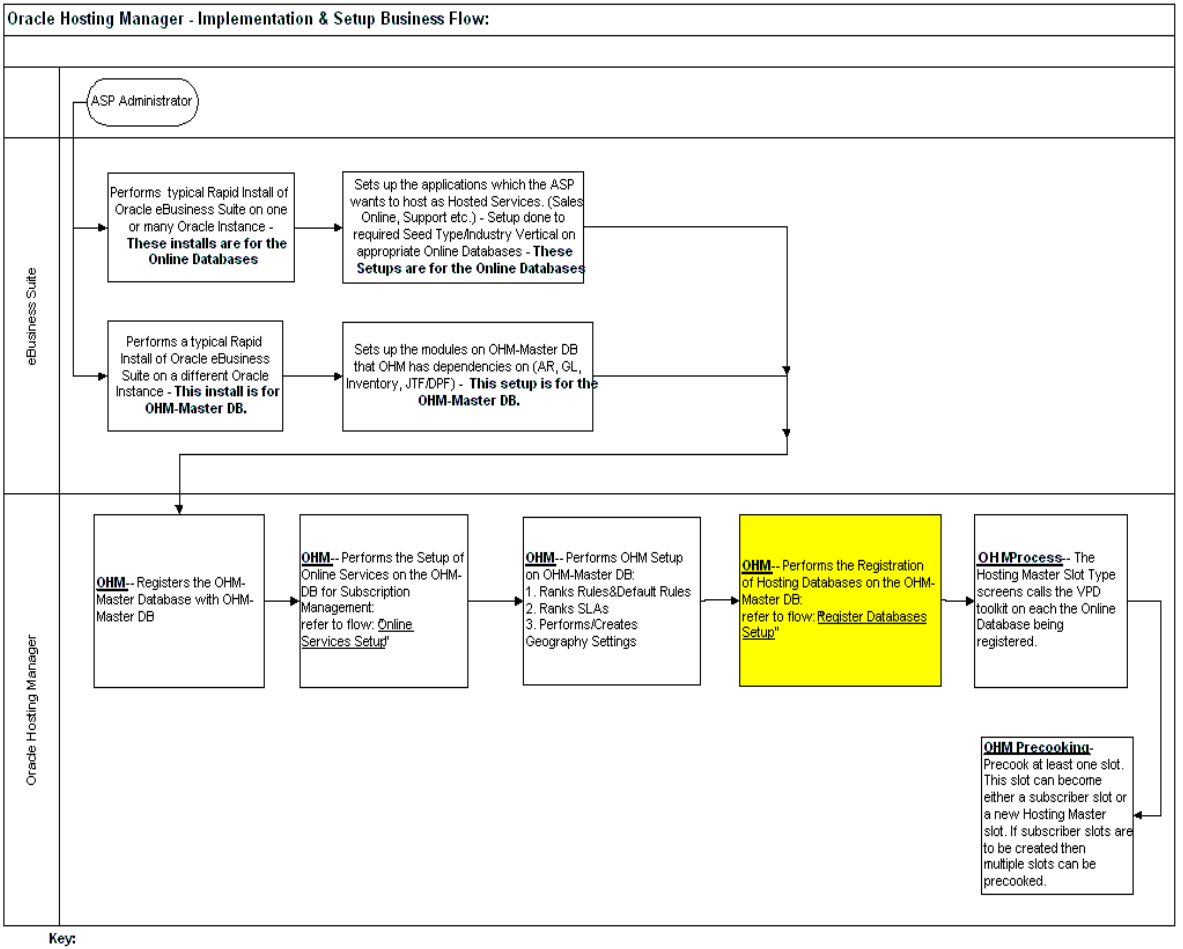
8

Hosting Databases Registration

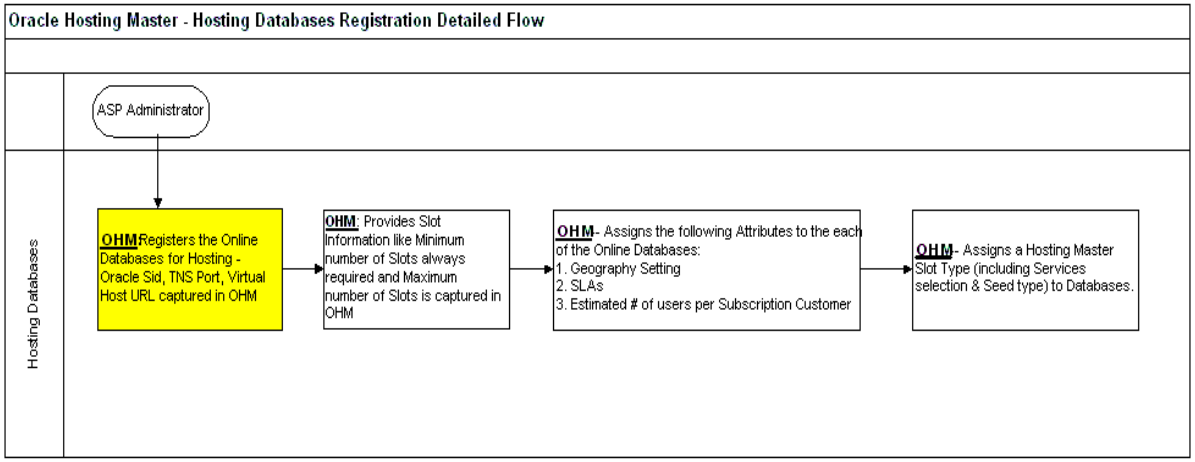
The chapter describes the steps in registering the hosting databases..

8.1 Hosting Databases Registration:

The process of registering hosting databases has been highlighted in the Oracle Hosting Manager implementation business flow:



In this step, the service provider registers all the hosting databases with OHM. This step of OHM implementation involves many sub-processes. Therefore, the OHM implementation business flow diagram has been drilled down to the Registration of Databases setup flow to clarify the details.

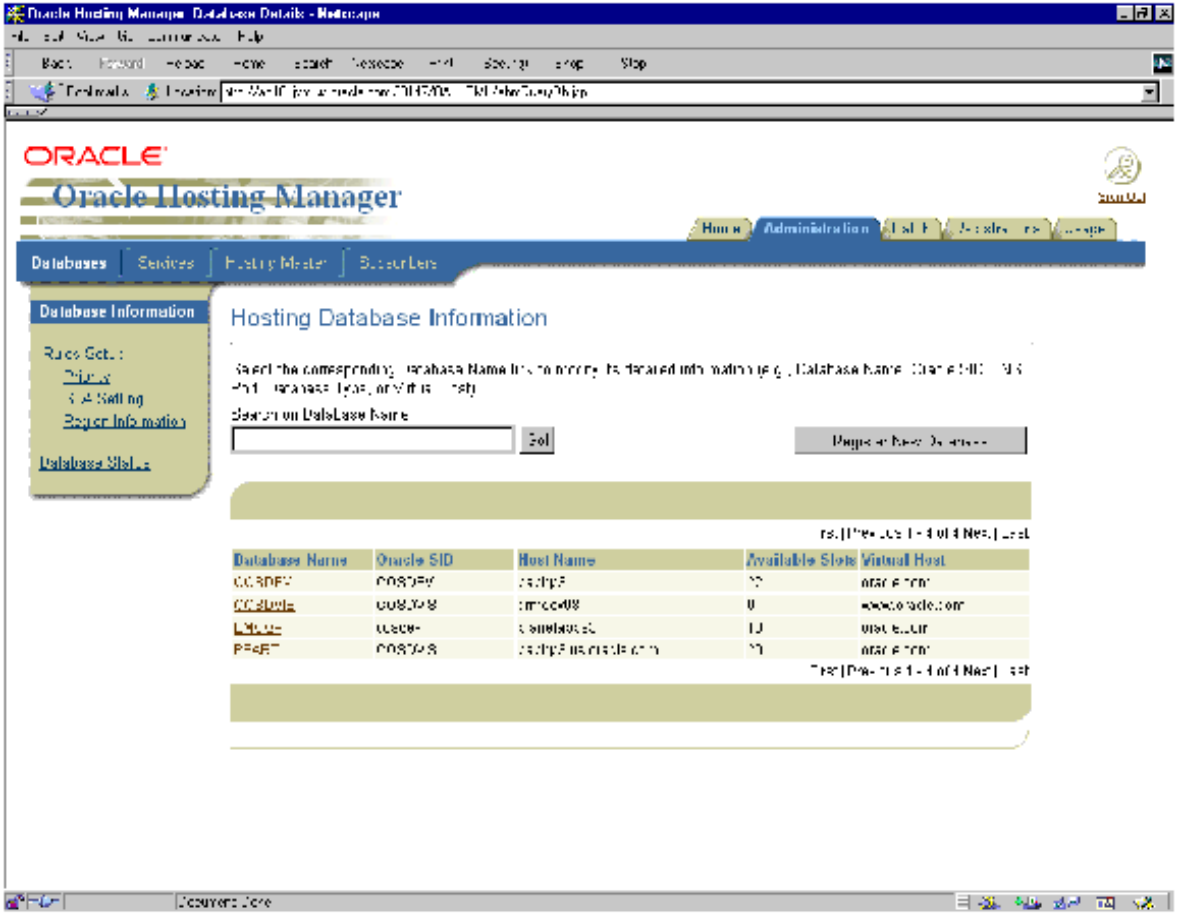


Key:
Operations beginning with**OHM**: These operations are perfomed in Oracle Hosting Manager Screens/Processes

8.2 Hosting Databases Summary

To begin with the registration process, the service provider should start with the Hosting Databases Information screen. To access the Databases Information screen, navigate to the following path in the IT Administrator responsibility in OHM:

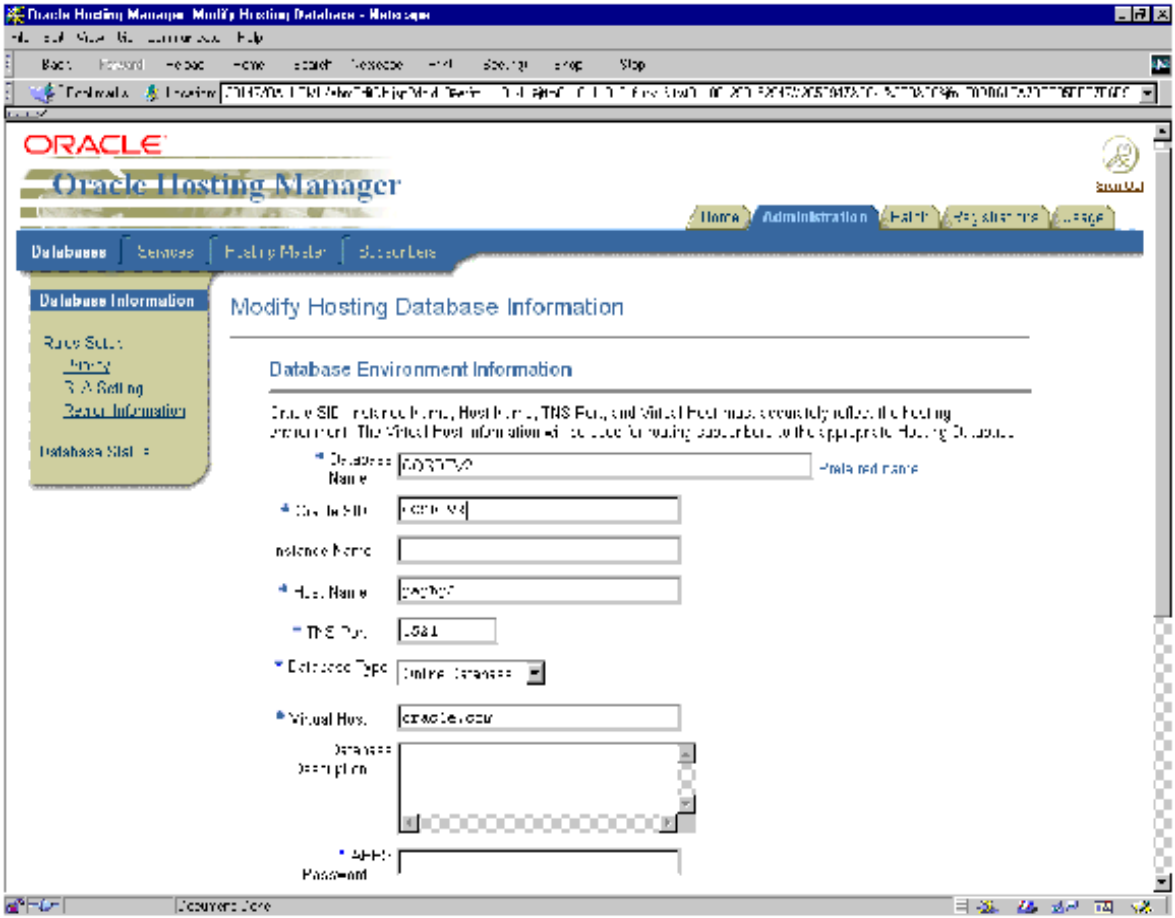
Administration --> Databases --> Database Information tab



This screen gives the service provider a summary of the all the databases that have been priviously registered with OHM. To register a new database, the service provider should click on the "Register New databases button". This takes the user to the "Register New Databases" screen. To change the information on any of the databases already registered with OHM, the service provider should select the name of the databases that appear as hyperlink. This hyperlink takes the user to the "Modify Hosting Database Information" that is very similar to the "Register new Database" screen.

8.3 Registering a new database

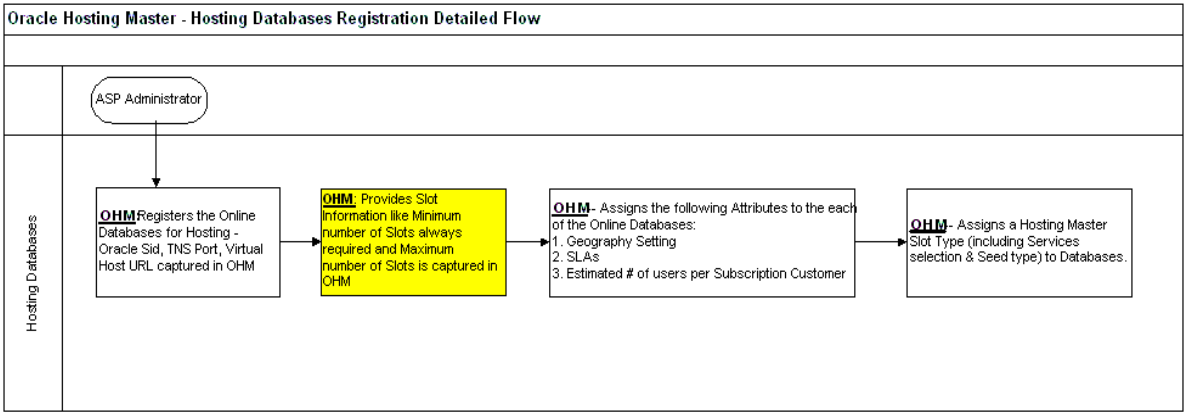
As an example, if the service provider wants to register a new hosting database called COSDEV2, s/he clicks on the "Register New Database" button. If the service provider wants to change the information of the COSDEV2 database which has already been registered, then he/she should select the hyperlink for COSDEV2 in the summary page. Either of these selections take the user to the same screen. Just that in the case of a new database registration, the screen does not have any data and in the latter case, the screen displays the registration information that was saved for COSDEV2. In the screen, the service provider either enters or changes the appropriate information on the COSDEV2 database.



8.3.1 Providing Account Information on Each Hosting Database

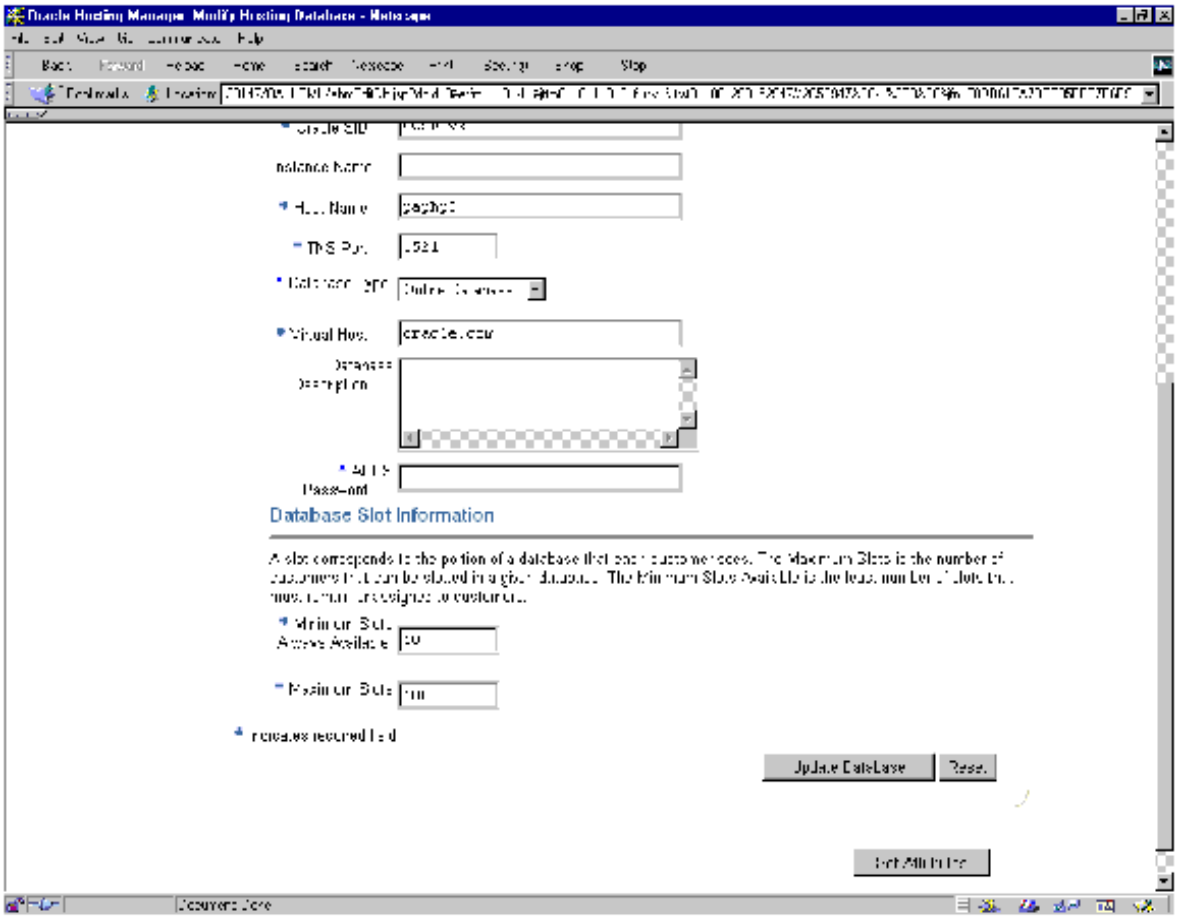
Each of the hosting databases registered with OHM get VPD enabled. By VPD enabling the databases, the various tables will be striped with the column SECURITY_GROUP_ID. The VPD enabling process is performed by the VPD toolkit of OHM. This process also implements the VPD security policy on appropriate tables.

Since every hosting database gets VPD enabled, the service provider needs to enter the Database account Information for these in the same "Register New Database" screen. This step is highlighted in the business-flow diagram as showbelow:



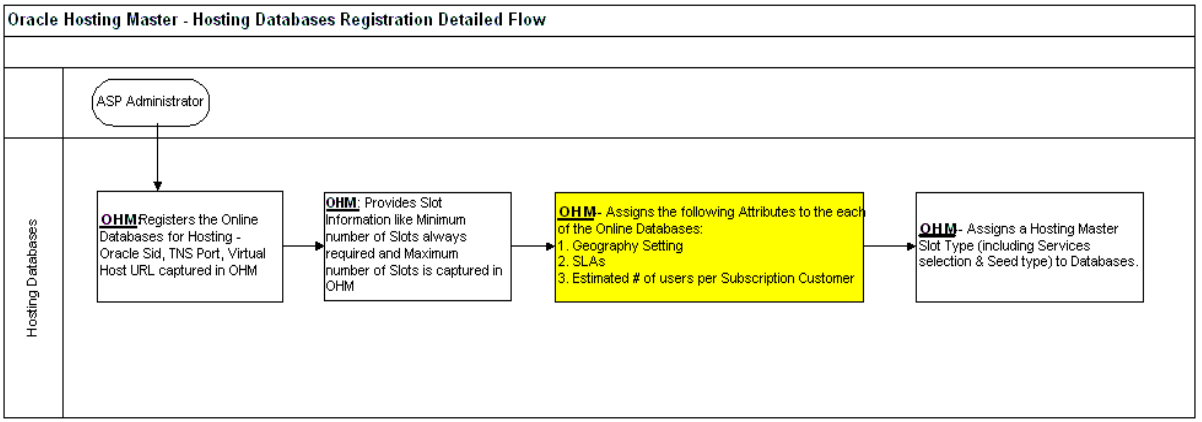
Key:
Operations beginning with **OHM:** These operations are performed in Oracle Hosting Manager Screens/Processes

Account information has to be entered for every hosting database in the "Register New Database" screen.



8.3.2 Setup of Database Assignment Rules

The service provider should assigns rule values to the hosting databases. This process has been highlighted in the OHM Hosting Databases Registration Flow diagram.



Key:
Operations beginning with **OHM**: These operations are perfomed in Oracle Hosting Manager Screens/Processes

The service provider assigns each of the hosting databases with one or more of the rule values:

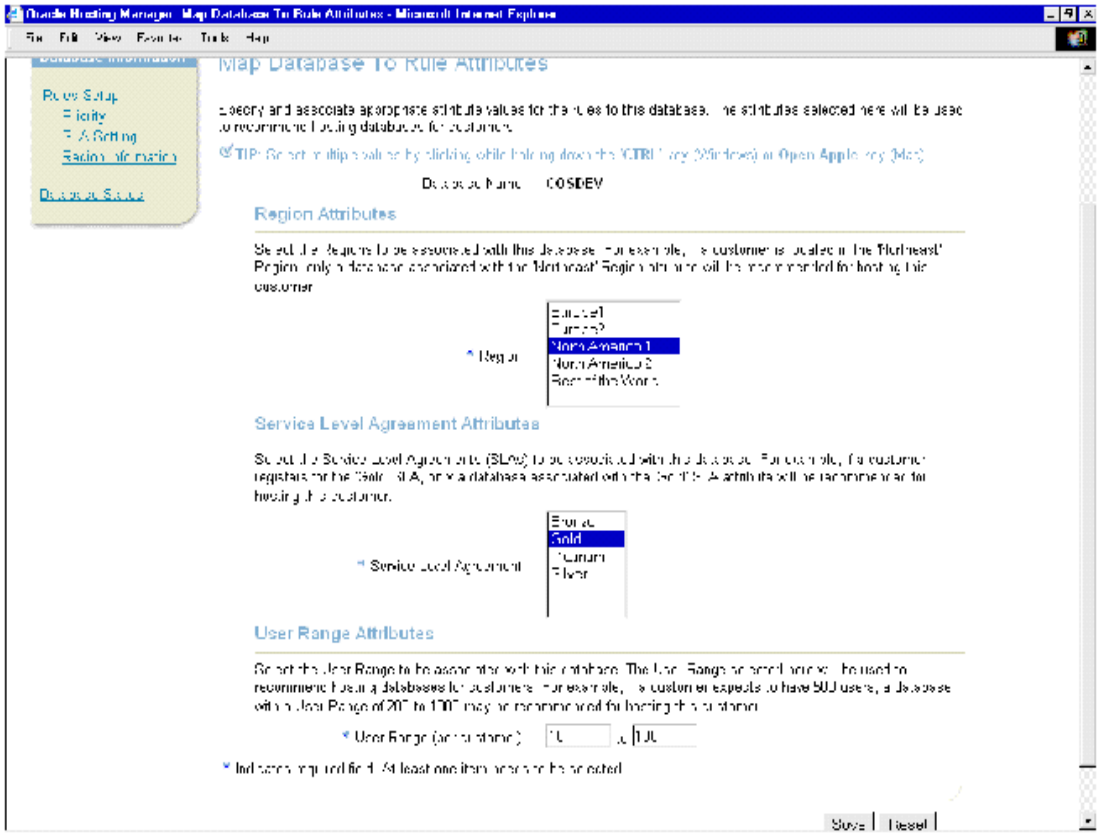
1. Geography Settings

2. Service Level Agreements (SLAs)

3. Estimated number of users per subscription customer

Each of these processes are presented to the user in the form of a train flow so as to guide the user perform the setups in the correct order. After entering the regisration information on any new hosting database, the user is taken to the "Map Database to Rules" screen. After assigning the rules attributes to databases, the user is taken to the creation of the first Hosting Master screen. All the processes in the above-mentioned screens are treated as a single transaction. Hosting Master creation and relating screens are explained in the next chapter.

To access the "Map Database to Rules Screen", the service provider clicks the "Set Attributes" button in the "Register New Database" or "Modify Hosting Database Information" screen:



In the screen shown above, the service provider has mapped the "North America" region, the "Gold" SLA to the COSDEV region. The service provider has also entered the estimated range of customer users to be between 10 and 100. With this, the service provider is specifying that the COSDEV database is ideal for subscription customers that originate from the "North America1 region" and who select the "Gold" SLA and have users between 10 and 100.

This completes the databases registration processes of Oracle Hosting Manager Implementation Setup business flow. The next chapter explains the details of processes that VPD enable the hosting databases.

9

VPD Toolkit & Precooking

This chapter describes the business processes involved in VPD enabling the hosting database and create new accounts on the hosting database.

9.1 Hosting Master Concepts

The VPD toolkit is anOHM process that VPD enables the hosting database so that more than one customers can be hosted on that hosting database. Executing the VPD toolkit on the hosting database creates the first account on the hosting database. The terms "slot" and "account" are used interchangeably in this context. This slot becomes the Hosting Master of the new slot type on the database being registered. For any hosting database, VPD toolkit should be run only once - when registering the hosting database.

The Hosting Master is the logically ties a slot type and a seed type (industry) for the first slot that is created by running the VPD toolkit. The Hosting Master is also the applications seed data "blueprints" that are used to initially generate hosting customer accounts. A slot type is the combination of online services that have been implemented on that particular hosting database. For example, if the hosting database being registered has salesonline and support implemented then the Hosting Master created will have the online services salesonline and support in it. The seed type is a particular industry vertical for which the hosting database has been implemented for. For example, if the hosting database had salesonline and support implemented for the "Automotive" industry, the seed type for that hosting database is the "Automotive". Another service provider may implement a "Generic" seed type for the hosting database at first and create the first slot type. The service provider can create new Hosting Master slot for new slot types on the same hosting database as explained later.

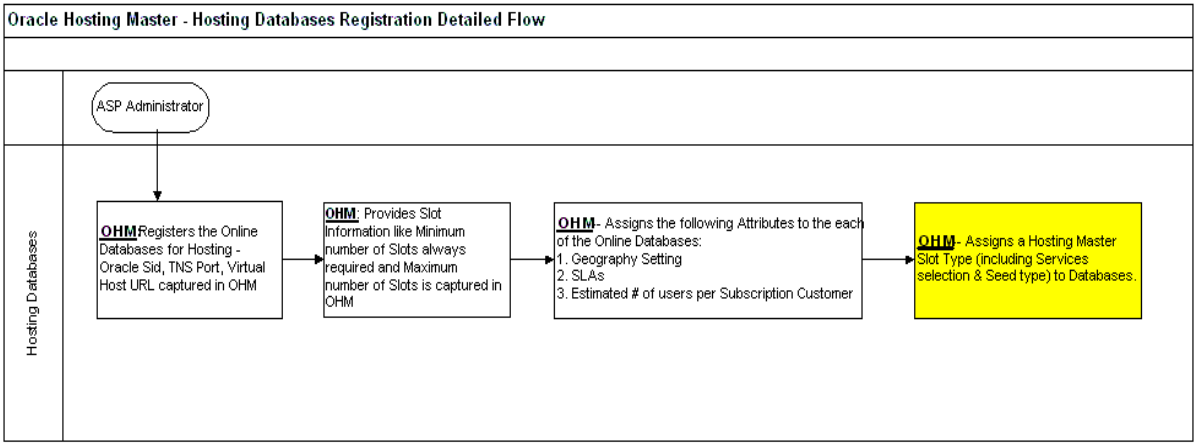
It is suggested that Hosting Masters should be name intuitively. For example, a Hosting Master that has salesonline and support implemented for the "Legal"

industry may be named "Sales_Support_for_Legal". With this, the service provider can know all the information of the Hosting Master from its name itself.

Every hosting database will have at least one Hosting Master. The Hosting Master is the prestine account that is used for generating other accounts in the VPD enabled hosting database.

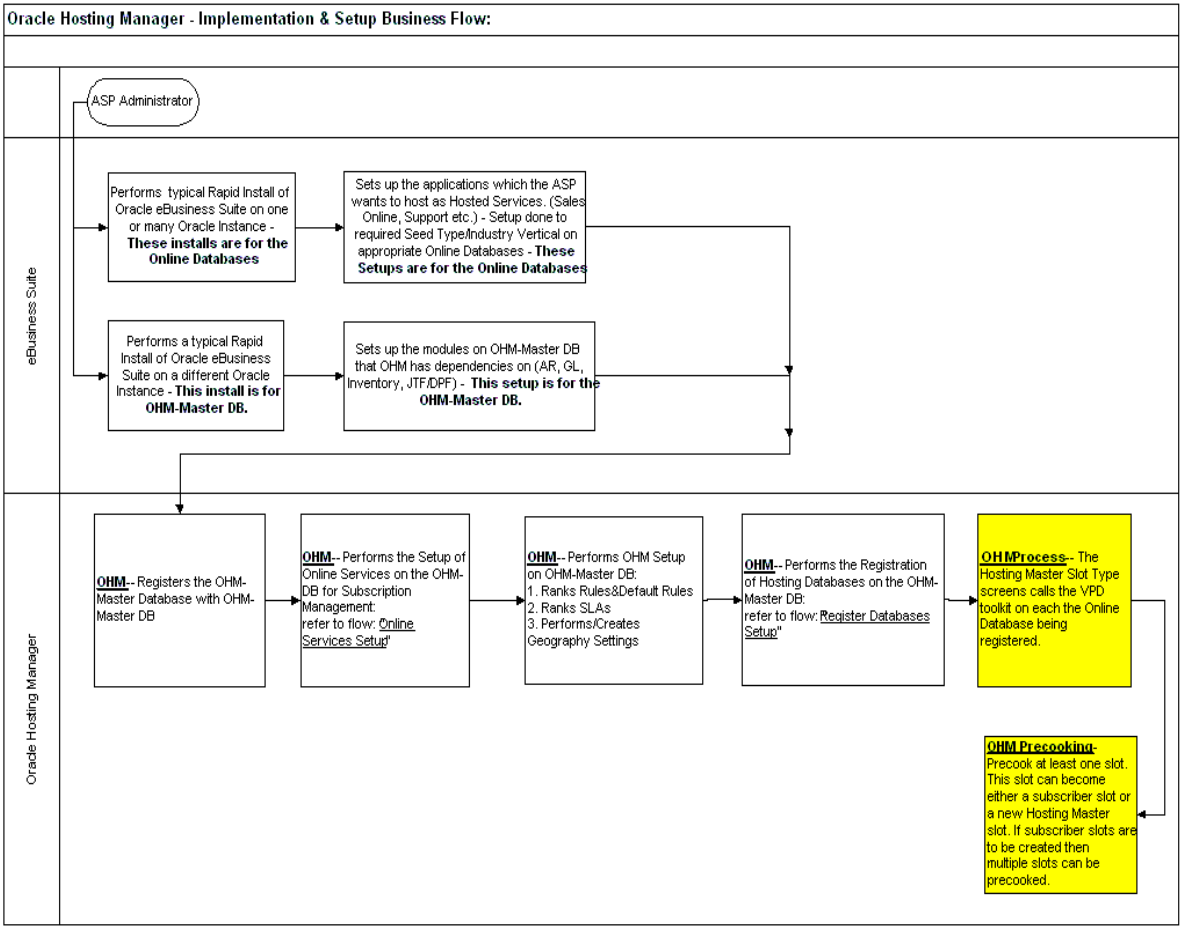
9.2 Creating the First Hosting Master

As mentioned in chapter 7, after the service provider is done setting rules attributes to databases, the train flow takes him / her to the creation of the first Hosting Master screen. This process in the databases registration flow has been highlighted.



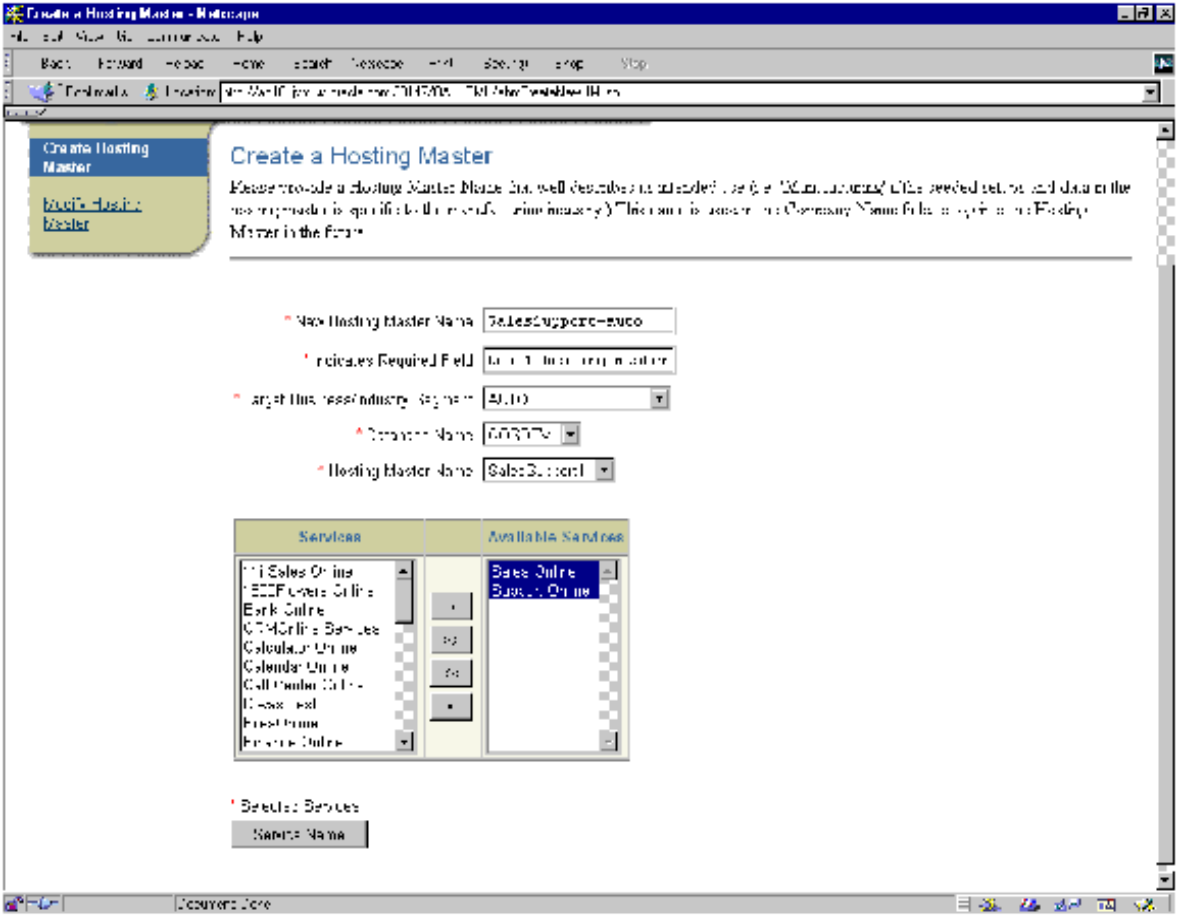
Key:
Operations beginning with**OHM**: These operations are perfomed in Oracle Hosting Manager Screens/Processes

The creation of Hosting Master also invokes the VPD toolkit. In the overall business flow for OHM Implementation businss flow, these processes have been highlighted as follows:



Key:
Operations beginning with **OHM:** These operations are perfomed in Oracle Hosting Manager Screens
Operation begging with **OHM Process** These are operations that get performed by an OHM screen. The user does not need to perform any other task to get the process started.

The Hosting Master creation screen is as folows:



After the user saves the Hosting Master creation screen, a confirmation page shows up and displays some certain manual steps to be performed manually for creation of the VPD administrator user.

The details of the manual steps to create VPD administrator user, to be performed at the Unix prompt are:

1. Execute the following sql script found at the location

$AHM_TOP/patch/115/sql/ahmstepa.sql as apps/(apps password)

This sql script will prompt the user to enter a password for the vpdadmin user being created. This will create the VPD administrator user (vpdadmin) in the database.

2. Login in as vpdadmin in the database and the execute the script

$AHM_TOP/patch/115/sql/ahmstepb.sql

This script creates a VPD_Security package which decides the logic for the application of the policy on the local tables.

3. Execute the script $AHM_TOP/patch/115/sql/ahmstepc.sql as apps/(apps password)

This script creates the context, "app_context" and the package APP_SECURITY_CONTEXT.

After the VPD user is created, the service provider should execute the VPD enable flows. They are:

1. Execute the following command at the Unix prompt

java -mx50m -DJTFDBCFILE="the dbc fie"
-Dframework.Logging.system.filename="the system log file" -
Dservice.Logging.common.filename ="the common log file"
oracle.apps.ahm.hstvpd.AhmHstVpdStart <Thread#"> <calltype=1> <slot_type_id>
<db_id of hosting master>

where ,Thread# = the nuber of threads specified to execute this command,

calltype = should always be 1 for this step,

slot_type_id = id of the Hosting Master slot_type

db_id = database id of the Hosting Master being VPD enabled

This command adds security_group_id column to the tables and updates the local seed tables with the master security_group_id and global seed tables with security_group_id value 0 (zero). This command also changes the security_group_id column to be not nullable and add the default clause to this column.

2. The service provider should then recompile all the invalid objects in the database. The service provider's database administrator should perform this step.

3. Next execute the following command at the Unix prompt:

java -mx50m -DJTFDBCFILE="the dbc fie"
-Dframework.Logging.system.filename="the system log file" -
Dservice.Logging.common.filename ="the common log file"

oracle.apps.ahm.hstvpd.AhmHstVpdStart <Thread#"> <calltype=2> <slot_type_id> <db_id of hosting master>

where , Thread# = the nuber of threads specified to execute this command,

calltype = should always be 2 for this step,

slot_type_id = id of the Hosting Master slot_type

db_id = database id of the Hosting Master being VPD enabled

4. java -mx50m -DJTFDBCFILE="the dbc fie" -Dframework.Logging.system.filename="the system log file" -Dservice.Logging.common.filename ="the common log file" oracle.apps.ahm.hstvpd.AhmHstVpdEnd <calltype=9> <slot_type_id> <VPDFlag>

where ,Thread# = the nuber of threads specified to execute this command,

calltype = should always be 1 for this step,

slot_type_id = id of the Hosting Master slot_type,

VPDFlag = 0(zero) is Master and 1 (one) is VPD error

This step updates the slot status to "master" if the VPD Flag parameter entered is 0 (zero). This means that VPD flow was successfully executed.

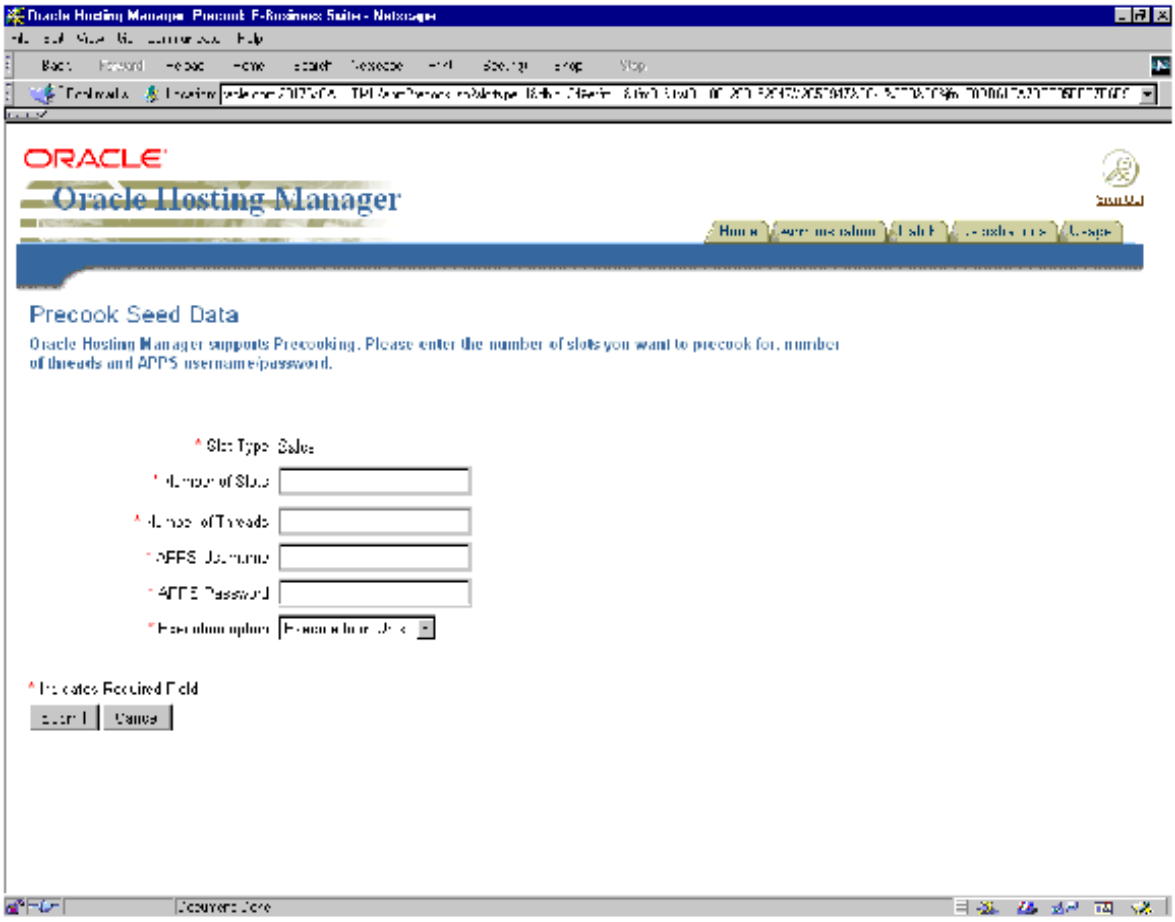
If VPD Flag parameter entered is 1 (one), then it updates the slot status to 'VPD_ ERROR' . This means the VPD flow has some errors which can be found in AHM_ ERROR_LOGS table.

9.3 Generation of Accounts on Hosting Master

Once the hosting database is VPD enabled, the service provider can create as many accounts as he/she'd want to have on that database. To access this screen, navigate to the following path in the IT Administrator responsibility in OHM:

Administration --> Subscribers

In Hosting Master summary screen that is displayed, the service provider can select any of the databases for generation of accounts. The service provider has to select the name of the appropriate Hosting Master that appears in the form of a hyperlink.

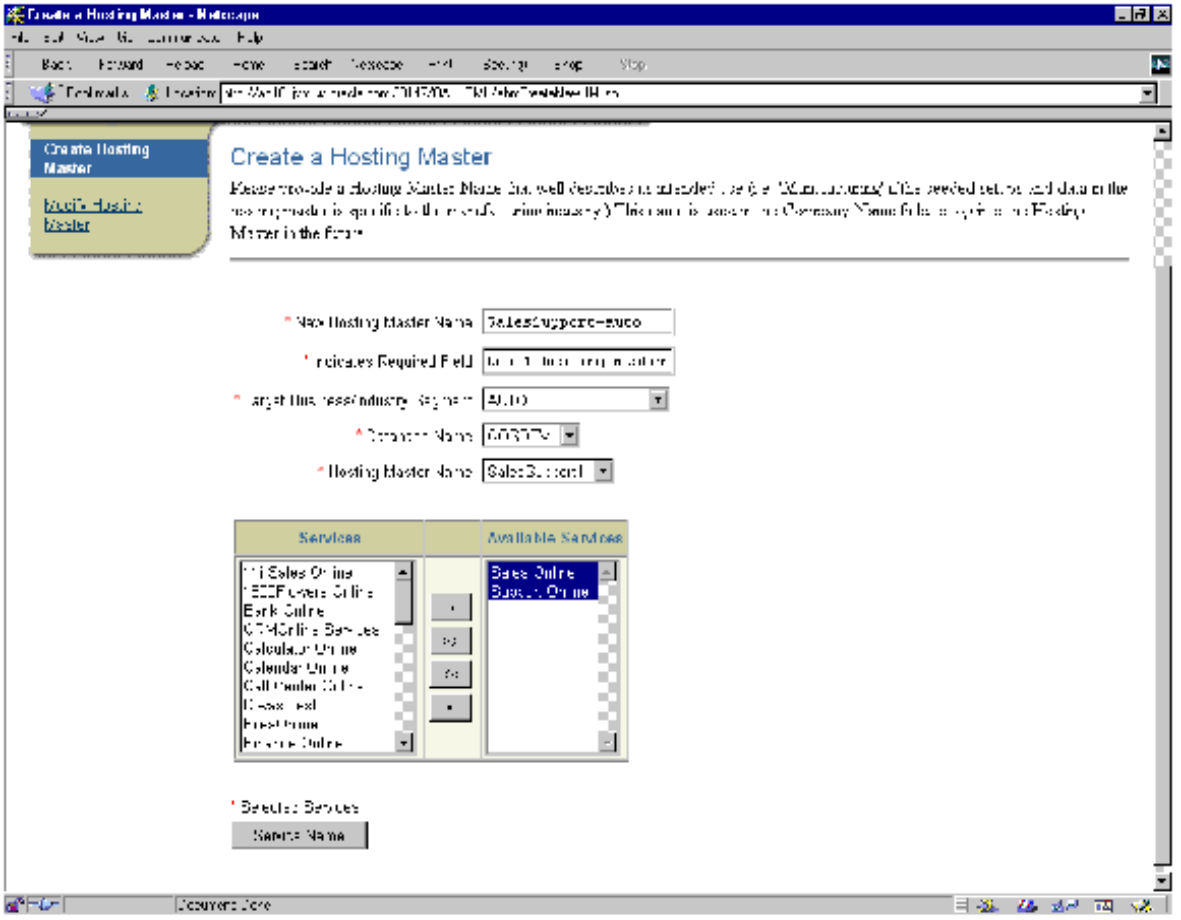


In the screen above, the service provider can specify the number of accounts that he/she wants generated on the hosting database selected.

9.4 Creation of Additional Hosting Masters on a Hosting Database

After the hosting master registeration process is complete, the first Hosting Master is created for the Hosting Master. However, the service provider adminstrator can choose to create new Hosting Masters on an existing hosting database. To create a new Hosting Master on a registered hosting database, the service provider has to

specify an existing Hosting Master on that database to copy from, specify the seed type and select services that the new Hosting Master should have as show.



The service provider can get a new hosting master created in any of the existing hosting databases. The service provider may need a new hosting master for the following reasons:

- The service provider may want a different slot type because a new seed type may be needed to be implemented on that hosting database
- The service provider may want to change the services that the existing slot type offers

- The service provider may want to have a new combination of both, the services, and the seed type in the new slot type.

The service provider should then login into the new Hosting Master slot and change the setup of existing services to the appropriate seed type of the industry and services.

For example, the service provider may have a Hosting Master name "Sales_Support_for_Legal" with the Salesonline and Support services for the "Legal" industry onthe hosting database. The service provider may want to create a new Hosting Master for the "Automotive" industry with the same services. In this case, the service provider can create a second Hosting Master named "Sales_Support_for_Auto" based on the "Sales_Support_for_Legal" Hosting Master. Once the "Sales_Support_for_Auto" Hosting Master is created, the service provider should log into the account for Hosting Master "Sales_Support_for_Auto" and change the setup catering to the Automotive industry. After this step, the service provider adminstrator can generate as many slots based on the "Sales_Support_for_Auto" Hosting Master as he/she wants. The service provider now has a number of free acounts of both the types "Sales_Support_for_Legal" and "Sales_Support_for_Auto".

This completes all the setups that are needed for Oracle Hosting Manager to function fully.