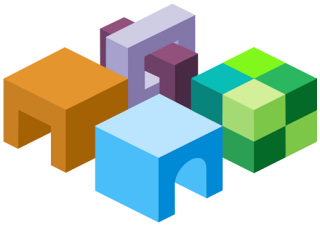

ORACLE® ENTERPRISE PERFORMANCE MANAGEMENT SYSTEM

Release 11.1.2.2

ESSBASE REHOSTING

ORACLE ENTERPRISE PERFORMANCE MANAGEMENT SYSTEM

CONTENTS IN BRIEF

If you want to rehost Oracle Essbase Server on a different machine, follow the procedures in this document. This procedure assumes that you have already installed and configured Essbase Server on the new machine. You can rehost to the same or a different platform.

Checklist for Rehosting Essbase Server and Data on a New Machine

The following table identifies the high-level tasks that you perform to rehost Essbase on a new machine. You must perform tasks in this order, and you must complete the entire checklist.

Table 1 Checklist for Deploying Essbase on a New Machine

Task	Reference	Check When Completed
Preparing to Migrate Data		
1. Prepare to migrate Essbase data.	"Preparing to Migrate Essbase Data " on page 2	
2. Perform prerequisite tasks.	"Performing Prerequisite Tasks " on page 3	
Migrating Artifacts, Data, and Properties		
3. Use the Oracle Essbase Administration Services Migration Wizard to migrate Essbase artifacts from the source system to the new machine.	"Migrating Data Using the Administration Services Migration Utility " on page 3	
4. Re-create disk volumes, tablespaces, and partitions.	"Re-creating Disk Volumes, Tablespaces, and Partitions" on page 4	
5. Migrate additional Essbase artifacts.	"Migrating Additional Essbase Artifacts" on page 5	
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7. Validate the data migration.	"Validating the Data Migration" on page 7	
Performing Postconfiguration Tasks		
8. Update Oracle Enterprise Performance Management System application references to the rehosted Essbase Server.	"Updating References to the Rehosted Essbase Server" on page 8	
9. Validate the system.	"Validating the System" on page 14	

Preparing to Migrate Essbase Data

Before you migrate Essbase data to a new server, perform the following tasks on the source machine:

1. Complete all active processing, such as calculation scripts, on the source machine. You can use the following MaxL command to ensure processing is complete:

```
display session all;
```

2. To ensure data integrity, disable logins for each application and make sure no users are active. You can use the following MaxL command:

   ```
   alter application applicationName disable connects;
   ```

3. Determine the *ARBORPATH* of the source instance.

   Tip: To determine the *ARBORPATH*, if you do not know it, launch Administration Services Console, right-click the server, select **Edit**, then **Properties**, and then click the **Environment** tab. Review and make note of the *ARBORPATH*.

4. Make a list of Java options (`ESS_JVM_OPTION`*n*), if any, that are set on the machine so that you can redefine them on the new machine (for example, using `hyperionenv.doc`). `ESS_JVM_OPTION`*n* Java options are specified as environment variables (Windows) or in `hyperionenv.doc` (UNIX).

5. Oracle recommends that you perform data validation for Essbase applications:

   - Run a full restructure on the database. You can use the following MaxL command:

     ```
     alter database applicationName.databaseName force restructure;
     ```

   - Validate the database for BSO applications. If the validation returns errors, revert to a backup that is free of errors. You can use the following MaxL command:

     ```
     alter database applicationName.databaseName validate using default error_file;
     ```

6. Shut down all Essbase applications.

Performing Prerequisite Tasks

Perform the following tasks before you continue deploying Essbase on a new machine:

- Ensure that the system clocks on both environments are in sync with respect to their time zones so that the relative time difference between the machines is zero. For example, if the source machine is in the PST zone and is set at 4 P.M. then if the new machine is in the EST time zone it must be set at 7 P.M.
- Before you proceed with migrating data, ensure that you have backed up information including databases, applications, and other files. For instructions, see the *Oracle Enterprise Performance Management System Backup and Recovery Guide*.

Migrating Data Using the Administration Services Migration Utility

Use the Migration wizard to migrate (copy) applications and databases from Essbase Server on the source machine to Essbase Server on the new machine. When you migrate an application, the source application is unaffected, and the source and destination servers experience no downtime.

To use the Migration wizard, log in as Admin so that you have Create/Delete Applications permissions for the source and destination Essbase Server instances.

Before using the wizard:

- Be sure that the destination Essbase server on the new machine is running.
- Be sure that the source server is running.

➤ To migrate data to Essbase Server on the new machine:

1. **Launch Administration Services Console on the source machine, logging in as Admin, and in the Enterprise View, add both the source instance and destination instance Essbase Servers to the Enterprise tree.**
2. **For each application on the source instance, launch the Migration Wizard: From the File menu, select New, then Wizards, and then Migration Wizard. For migration type, select Novice to migrate the artifacts. Specify the same application name on the destination server. This step migrates artifacts that are not platform dependent.**

For more information about the Migration Wizard, see *Administration Services Online Help*.

Some artifacts are not supported by the Migration wizard; you must manually copy these artifacts from the source machine to the new machine. Some properties are not supported by the Migration wizard; you must manually re-create these properties using the Administration Services Console or MaxL. These steps are covered later in this guide.

Re-creating Disk Volumes, Tablespaces, and Partitions

After migrating data using the Migration Wizard, you must re-create disk volumes, tablespaces, and partitions on the new machine.

Table 2 Re-creating Disk Volumes, Tablespaces, and Partitions

Task	Notes

Create any required disk volumes on the new machine. Then, for each database, use MaxL to define the required disk volumes (for BSO applications) on the new machine.
 	
If no disk volumes exist, you can skip this step.
	You can define disk volumes using the Administration Services Console or using the following MaxL commands.
	
	To see a list of disk volumes on the source machine:
	
	`display disk volume all;`
	
	To define the disk volumes on the new machine:
	
	`Alter database databaseName add disk volume 'volumeName';`
	
	After defining the disk volumes, specify the appropriate size, file type, and so on. For example:
	
	`alter database databaseName set disk volume file_type|file_size;`

Task	Notes
Create any required tablespaces on the new machine. Then, for each database, define the required tablespaces (for ASO applications) on the new machine. If no tablespaces exist, you can skip this step.	You can define tablespaces using the Administration Services Console or using the following MaxL commands. To see a list of tablespaces on the source machine, from the Administration Services Console, right-click an application, select **Edit Properties**, and click the **Tablespaces** tab. To define the tablespaces on the new machine: `Alter tablespace applicationName."tablespaceName" add file_location 'tableSpaceLocation';`
For each database, re-create the partitions on the destination machine. You export the partitions from only one side of the partitioned database. If no partitions exist, you can skip this step.	You can define partitions using the Administration Services Console or using the MaxL commands. It is easiest to use the Administration Services Console to export from the source machine and import on the new machine: 1. On the source machine, in Enterprise view, select **Server**, then **Application**, then **Database**, and then **Partition**. 2. For each source and target database, right-click the partition and select **Export Partition to xml file** to export to the file system. 3. Edit the `xml` file server references to the destination Essbase instance. 4. Import the `xml` file to the new machine: Select **Application**, then **Database**, then right-click the **Partitions** node, and then select **Import Partition**.

Migrating Additional Essbase Artifacts

The following table describes artifacts that must be migrated by manually copying them to the new machine.

Table 3 Essbase Artifacts to Copy to the new machine

Artifact to Migrate	Notes

For each database, export the data to file system, copy the data file to the destination machine, and then import the data on the new machine.	Export and import data using the Administration Services Console or the following MaxL commands:
	On the source machine:
	`export database applicationName.databaseName all data|level0 data to data_file 'pathAndFileName';`
	Note that for ASO applications you must export and import Level 0 data.
	On the new machine, run the following MaxL command:
	`import database applicationName.databaseName data from data_file "'//pathAndFileName'" on error abort;`

For each database, copy the `maxl`, `mdx`, and `msh` files from the source machine to the new machine, if they exist.	On the source machine, copy the files from: *ARBORPATH*/app/*appname*/*dbname* In addition, copy files from any other locations in which you have stored these files. To the new machine, to: *ARBORPATH*/app/*appname*/*dbname*

Artifact to Migrate	Notes
If you have defined any Essbase database triggers, copy `trigger.trg` from the source machine to the new machine.	On the source machine, for each database, copy `trigger.trg` from: *ARBORPATH*/app/*appname*/*dbname* To the new machine, to: *ARBORPATH*/app/*appname*/*dbname*

For BSO applications, copy the global-level and application-level macros and UDFs.	On the source machine, copy the files from:
	● For global-level artifacts:
	❍ `ARBORPATH/java/essfunc.xml`
	❍ and all of the Java `jar` files from:
	`ARBORPATH/java/udf`
	● For application-level artifacts:
	❍ `ARBORPATH/app/`*appname*`/essfunc.xml`
	❍ and all of the Java `jar` files from:
	`ARBORPATH/app/appname/udf`
	On the new machine, copy the files to:
	● For global-level artifacts:
	❍ `ARBORPATH/java/essfunc.xml`
	❍ and all of the Java `jar` files to:
	`ARBORPATH/java/udf`
	● For application-level artifacts:
	❍ `ARBORPATH/app/`*appname*`/essfunc.xml`
	❍ and all of the Java `jar` files to:
	`ARBORPATH/app/appname/udf`

Re-creating Additional Essbase Properties

The following table describes properties that you must re-create on the new machine:

Table 4 Essbase Properties to Re-create on the New Machine

Property to Re-create	Notes

Re-create the location aliases on the new machine. Applications must be started to complete this task.	You can display and create location aliases using the Administration Services Console or the following MaxL commands.
	On the source machine:
	`display location alias all;`
	On the new machine:
	`Create location alias locationAliasName from applicationName.databaseName to applicationName.databaseName at hostname as userName identified by password ;`
	Enclose the host name in quotation marks if it contains hyphens or periods. Enclose the password in quotation marks if it contains special characters or if it is a keyword.

Re-create the global substitution variables on the new machine.
Note that database-level and application-level variables are migrated with the Migration Wizard.
	You can display and create global substitution variables using the Administration Services Console or the following MaxL commands:
	On the source machine:
	`display variable on system;`
	On the new machine:
	`alter system add variable variablename value;`

Re-create the Java options on the new machine. Make a list of Java options (`ESS_JVM_OPTION`*n*) that are set on the source machine.	Redefine the Java options, for example using `hyperionenv.doc`.

Validating the Data Migration

Perform the following tasks to validate the data migration:

1. Load each database and run tests to ensure that the database is accessible.
2. For BSO applications, run `alter database` *databaseName* `validate using` *errorType* to ensure kernel data correctness.
3. For each database:
   - Ensure that the database loads.
   - Ensure that the data is loaded and accessible through querying. For example, you can preview data in Oracle Essbase Administration Services Console: Right-click a database and select **Preview Data**.
   - Ensure that Linked Reporting Objects are accessible if they existed on the source.
   - Check for the existence of security filters, substitution variables, UDFs, macros, location aliases, partitions, drill-through definitions, triggers, `.MaxL` scripts, and `.mdx` scripts on the new machine.

Updating References to the Rehosted Essbase Server

Subtopics

Because the Essbase Server host and port has changed, you must update references to the Essbase Server within Oracle Hyperion Shared Services Registry (to map the server name to a cluster name), and within existing EPM System applications that use Essbase as a data source. Perform the steps for Essbase first. Make sure EPM System services are started before you proceed.

Mapping Essbase Server Cluster Names

To simplify the rehosting process for products that use Essbase as a data source, perform this task to allow other Oracle Enterprise Performance Management System products to connect to Essbase by the new host cluster name.

You must perform this step before you update references for other products. This step adds search-and-replace host pairs to the Shared Services Registry that other products use to update their Essbase host environments.

➤ To update Essbase Server cluster names:

1 **Add the `ApsResolver` property if it does not already exist to `essbase.cfg` (in *`ARBORPATH`*`/bin` on the new machine) and `essbase.properties` (in *`EPM_ORACLE_HOME`*`/products/Essbase/aps/bin` on the Oracle Hyperion Provider Services machine).**

- For server-to-server communication, modify `essbase.cfg` to specify the Provider Services server to use, in the following format, separating each URL with a semicolon:

  `ApsResolver http(s)://`*`host`*`:`*`port`*`/aps`

- For client-to-server communication, modify `essbase.properties` to specify the Provider Services server to use, in the following format:

  `ApsResolver=http(s)://`*`apshost1`*`:`*`port`*`/aps`

2 **Restart Essbase after updating these files.**

3 **From a command prompt on the machine hosting Oracle Hyperion Shared Services, navigate to the following directory: *`EPM_ORACLE_INSTANCE`*`/bin/upgrades`.**

4 **Run the following script:**

`updateEssbaseServer` *`ClusterNameForOldHost ClusterNameForNewHost`*

Tip: The default cluster name is `EssbaseCluster-1`. The cluster name is case sensitive. You can see the Essbase cluster name in the Oracle Hyperion Shared Services Console. You can also open *EPM_ORACLE_INSTANCE*`/config/config.xml` and search for `ClusterName`. If the cluster name did not change, you do not have to perform this step.

The utility stores the mapping information for cluster names from the old host for Essbase Server and the new host in the Oracle Hyperion Shared Services Registry.

5 **Repeat for each Essbase Server instance.**

Updating Provider Services References to a Rehosted Essbase Server

Because the Essbase Server host has changed, you must make updates so that Provider Services recognizes the new Essbase data source.

➤ To update internal references to a rehosted Essbase Server:

1 **On the machine on which Oracle Hyperion Provider Services is deployed, from a command prompt, navigate to the following directory:** *EPM_ORACLE_INSTANCE*`/bin/upgrades`.

2 **Run the following script:**

```
ApsUpdateEssbaseServer.bat|sh
```

Execute this utility once.

Updating Essbase Studio References to a Rehosted Environment

Essbase Server connections and deployed cubes are affected by changes in host, port, or data encryption information for the underlying Essbase Server instances or clusters, or for any Oracle Essbase Studio Server instances.

You must update references to those server instances and clusters in Essbase Studio.

➤ To update references to a rehosted Essbase Server instance or cluster:

1 **In Essbase Studio Console, select Tools, and then Rehost Essbase Connections.**

2 **In Rehost Essbase Connections, select the connection to rehost under Essbase connections.**

The old cluster name or Essbase host and port number, and, if applicable, data encryption method, are displayed under **Host/Port/Encryption in Catalog**.

3 **Under New Host/Port/Encryption, enter the new cluster name or new host name, port number, and, if applicable, data encryption method.**

Note: For Essbase Server clusters, only the cluster name is required. The port number is not required. By default, the new cluster name is displayed in the **New Host/Port/Encryption** column.

Use the following syntax:

- For an Essbase Server instance, no data encryption, enter:

  host:*port*

- For an Essbase Server instance, with data encryption, enter:

  host:*port*:ssl

- For an Essbase Server cluster, no data encryption, enter:

  cluster_name

4 **Optional:** Click **Test Connection** to validate the entry that you made under **New Host/Port/Encryption**.

Note: Oracle Essbase Studio does not validate entries as you enter them. You must click **Test Connection** to validate the information that you entered.

5 Select an **Update Deployment History** option for the currently selected Essbase Server connection:

- **Update the host name and port number for all deployment history**—Replaces all old Essbase Server host and port references to the new host and port that you specified.

  This is the default option.

- **Replicate the last successful deployment history and update the copy only**—Makes a copy of the last successful deployment history listing, and then updates the copy with the new host and port information, and the date and time of the rehosting.

  Tip: When selecting the **Replicate** option, after the update is complete, each rehosted Essbase model displays twice in the Metadata Navigator: once with the old *host*:*port* information and once with the new *host*:*port* and, if required, data encryption information.

Note: Deployment history is updated only for successfully rehosted Essbase Server connections.

6 Click **Update**.

7 For the rehosting status of each Essbase Server connection that is rehosted, check the **Update Status** column in the **Rehost Essbase Connections** dialog box.

If the rehost is successful, the **Host/Port/Encryption in Catalog** column is updated with the new cluster or host and port information and, if applicable, encryption information. If the rehost fails, an error message is displayed.

Note: If other Essbase Server connections have the same old *host*:*port* setting, rehosting one instance rehosts all other instances.

Updating Reporting and Analysis References to a Rehosted Server Environment

Subtopics

Table 5 Tasks for Reporting and Analysis

Task	Reference
Oracle Hyperion Financial Reporting — Because the Essbase Server host and port have changed, make updates so that Financial Reporting recognizes the new Essbase data source.	"Updating Financial Reporting References to a Rehosted Essbase Server" on page 11
Oracle Hyperion Web Analysis — Because the Essbase Server host and port have changed, make updates so that Web Analysis recognizes the new Essbase data source.	"Updating Web Analysis References to a Rehosted Essbase Server" on page 11

Updating Financial Reporting References to a Rehosted Essbase Server

Because the Essbase Server host and port have changed, update references to the Essbase Server host within Financial Reporting where Essbase is used as a data source.

Before you proceed, make sure the Financial Reporting, Oracle Hyperion Reporting and Analysis Framework, and Print Server services are started.

➤ To update Financial Reporting references to a rehosted Essbase Server:

1 **On the machine hosting Oracle Hyperion Financial Reporting, from a command prompt, navigate to the following directory:** *EPM_ORACLE_INSTANCE*`/bin/upgrades`.

2 **Run the following script:**

```
FRUpdateEssbaseServer.bat|.sh
```

3 **Log in to Oracle Hyperion Enterprise Performance Management Workspace, open Explore, select Tools, then Database Connection Manager, and then verify that the data sources use the correct Essbase Server. Update the data sources if necessary.**

Updating Web Analysis References to a Rehosted Essbase Server

Because the Essbase Server host and port have changed, update references to the Essbase Server host within Web Analysis where Essbase is used as a data source.

➤ To update Web Analysis references to a rehosted Essbase Server:

1 **On the machine hosting Oracle Hyperion Web Analysis, from a command prompt, navigate to the following directory:** *EPM_ORACLE_INSTANCE*`/bin/upgrades`.

2 **Run the following script:**

```
WebAnalysisUpdateEssbaseServer.bat|sh
```

Updating Planning References to a Rehosted Server Environment

Use the Oracle Hyperion Planning Upgrade Wizard to update references to rehosted data sources. You must update data sources and update mappings from Planning applications to reporting applications. The Planning Upgrade Wizard enables you to update multiple data sources and reporting applications simultaneously.

Note: Before updating references to data sources, ensure that the Essbase server and the relational database are running.

➤ To update references to Essbase data sources:

1. From Oracle Hyperion Enterprise Performance Management Workspace, select **Navigate**, then **Administer**, then **Classic Application Administration**, **Planning Administration**, and then click **Upgrade Wizard**. Log in as an administrator user that has the Dimension Editor or Application Creator role.
2. On the **Update Data Sources** page, review and update the Essbase server information for each Planning data source.
   - To update multiple Essbase servers with the same information:
     a. On the bottom of the page, select the data sources to which to apply Essbase information updates.
     b. Under **Update Essbase Information**, enter the new Essbase server information.

        Note that you can specify the Essbase cluster name.
     c. Click **Apply to Selected**.
   - To update each data source individually:
     a. On the bottom of the page, select the data sources to which to apply the updates.
     b. Enter the new information for each data source.
3. Click **Save** to save the updates to the selected data sources, and then click Cancel to close the Wizard.
4. Stop and then restart the Planning server.

Next, you must update Planning cubes in Essbase.

➤ To update Planning cubes in Essbase:

1. Back up the Planning relational database and the Essbase data.
2. To update cubes, log in to the Planning application and select **Administration**, then **Application**, and then **Refresh Database**. Select **Database**, **Update custom-defined functions**, and **Security Filters** to update Planning cubes in Essbase and to update users and groups provisioned to Oracle Hyperion Planning application to Essbase and re-create security filters for users.

Updating Profitability and Cost Management References to a Rehosted Essbase Server

Because the Essbase Server host and port have changed, make updates so that Oracle Hyperion Profitability and Cost Management recognizes the new location.

➤ To update Profitability and Cost Management references to a rehosted Essbase Server:

1. On the machine hosting Oracle Hyperion Profitability and Cost Management, from a command prompt, navigate to the following directory: *EPM_ORACLE_INSTANCE*/bin/upgrades.
2. Run the following script:

   ```
   HPMUpdateEssbaseServer.bat
   ```

Updating Strategic Finance References to a Rehosted Essbase Server or Financial Management Server

If the Essbase Server host and port have changed since the earlier release, make updates so that Oracle Hyperion Strategic Finance recognizes the new location. This procedure is also required if the Oracle Hyperion Financial Management Server has changed since the earlier release.

➤ To update Strategic Finance references to a rehosted Essbase Server or Financial Management Server:

1. In Strategic Finance, from the **Server** menu, select **Update Connections**.

   The **Update Connections** dialog box displays all of the batches and maps that exist on the Oracle Hyperion Strategic Finance Server.
2. From the **Connection Type** list, select the appropriate connection type.
3. Select the batch or map items related to a rehosted server, enter the new server name, and then click **Update Selected**.
4. Repeat these steps for each rehosted server and its associated batch or map items.

Updating Performance Scorecard References to a Rehosted Essbase Server

If the Essbase Server host and port has changed since the earlier release, update references to the Essbase Server host within Oracle Hyperion Performance Scorecard where Essbase is used as a data source.

➤ To update Performance Scorecard references to a rehosted Essbase Server:

1. In Oracle Hyperion Performance Scorecard, select **Administration**, and then **Data Source List**.
2. Select the name of the external data source and then click **Edit**.
3. Select each tab to change general settings and required dimension mappings, and then click **Save**.

Validating the System

Shut down Oracle Essbase on the previous host machine, and then perform any required acceptance tests for applications and reports.

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