Oracle® Solaris Cluster Data Service for Oracle Essbase Server Guide

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Contents

Using This Documentation

- **Overview** – Describes how to install and configure the Oracle Solaris Cluster HA for Oracle Essbase Server data service.
- **Audience** – Technicians, system administrators, and authorized service providers.
- **Required knowledge** – Advanced experience troubleshooting and replacing hardware.

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♦ ♦ ♦ CHAPTER 1

Getting Started with Oracle Essbase Server

This chapter provides an overview of the data service for Oracle Solaris Cluster HA for Oracle Essbase. The chapter also explains how to install and configure the data service package. This chapter contains the overview about HA for Oracle Essbase.

Overview

The Oracle Essbase Server data service provides orderly startup, shutdown, fault monitoring, and automatic failover of the Essbase Server. Use the information in this section to understand how to make the Essbase Server highly available.

The HA for Oracle Essbase Server provides fault monitoring and automatic failover for the Enterprise Server to eliminate single points of failure in a Oracle Essbase Server system. Table 1, “Oracle Essbase Server System Components and Their Data Services,” on page 9 lists the data service that protects each of the Oracle Essbase Server components in an Oracle Solaris Cluster configuration.

Note - You can install and configure this data service to run in either the global zone or a zone cluster. For updated information about supported configurations of this data service, see the *Oracle Solaris Cluster 4 Compatibility Guide*.

TABLE 1 Oracle Essbase Server System Components and Their Data Services

Oracle Essbase Server System Component	Data Service
Database server	The data service for the database that you are using: ■ For the Oracle database, the data service is explained in the *Oracle Solaris Cluster Data Service for Oracle Database Guide*. ■ For the Oracle RAC database, the data service is explained in the *Oracle Solaris Cluster Data Service for Oracle Real Application Clusters Guide*.

Oracle Essbase Server System Component	Data Service
	■ For the Oracle External Proxy, the data service is explained in the *Oracle Solaris Cluster Data Service for Oracle External Proxy Guide*.
Application server	The data service is HA for Oracle Essbase. The resource type is `ORCL.essbase`. The data service is explained in this guide.
Web server	The data service is explained in the *Oracle Solaris Cluster Data Service for Oracle WebLogic Server Guide*.

High availability is provided for the Oracle Essbase Server component of the Oracle Essbase system.

The Oracle Essbase Server component can be configured as a failover data service.

For conceptual information about failover services, see the *Oracle Solaris Cluster 4.3 Concepts Guide*.

HA for Oracle Essbase requires that a functioning cluster with the initial cluster framework is already installed. See the *Oracle Solaris Cluster 4.3 Software Installation Guide* for details on initial installation of clusters and data service software. You register the HA for Oracle Essbase after you successfully install the basic components of Oracle Solaris Cluster and Oracle Essbase Server software.

For information about which version of Oracle Essbase Server software is compatible, see the Oracle Solaris Cluster Compatibility Guide available at the Oracle Solaris Cluster Technical Resources page.

Installing the HA for Oracle Essbase Server Package

If you did not install the HA for Oracle Essbase Server package during your initial Oracle Solaris Cluster installation, perform this procedure to install the package.

▼ How to Install the HA for Oracle Essbase Server Package

Perform this procedure on each cluster node where you want the HA for Oracle Essbase Server software to run.

1. **On the cluster node where you are installing the data service package, assume the `root` role.**

2. **Ensure that the data service package is available from the configured publisher and that the `solaris` and `ha-cluster` publishers are valid.**

```
# pkg list -a ha-cluster/data-service/oracle-essbase-server
# pkg publisher
PUBLISHER                             TYPE     STATUS   P  LOCATION
solaris                               origin   online   F  solaris-repository
ha-cluster                            origin   online   F  ha-cluster-repository
```

For information about setting the `solaris` publisher, see "Adding, Modifying, or Removing Package Publishers" in *Adding and Updating Software in Oracle Solaris 11.3*.

Tip - Use the `-nv` options whenever you install or update to see what changes will be made, such as which versions of which packages will be installed or updated and whether a new BE will be created.

If you do not get any error messages when you use the `-nv` options, run the command again without the `-n` option to actually perform the installation or update. If you do get error messages, run the command again with more `-v` options (for example, `-nvv`) or more of the package FMRI pattern to get more information to help you diagnose and fix the problem. For troubleshooting information, see Appendix A, "Troubleshooting Package Installation and Update," in *Adding and Updating Software in Oracle Solaris 11.3*.

3. **Install the HA for Oracle Essbase Server and HA for Oracle Process Management and Notification server software package.**

```
# pkg install ha-cluster/data-service/oracle-essbase-server \
ha-cluster/data-service/oracle-pmn-server
```

4. **Verify that the package installed successfully.**

```
# pkg info ha-cluster/data-service/oracle-essbase-server \
ha-cluster/data-service/oracle-pmn-server
```

Installation is successful if output shows that `State` is `Installed`.

Note - For instructions on updating your software, see Chapter 11, "Updating Your Software" in *Oracle Solaris Cluster 4.3 System Administration Guide*.

♦ ♦ ♦ CHAPTER 2

Installing and Configuring the Oracle Essbase Server

This chapter provides an overview of the Oracle Essbase Server and explains how to install and configure it.

This chapter contains the following sections:

Overview

The Oracle Essbase Server component is protected by the HA for Oracle Essbase Server data service.

Table 2, "Tasks for Installing and Configuring the HA for Oracle Essbase Server," on page 14 summarizes the tasks for installing and configuring HA for Oracle Essbase Server and provides cross-references to detailed instructions for performing these tasks. Perform the tasks in the order in which they are listed in the table.

TABLE 2 Tasks for Installing and Configuring the HA for Oracle Essbase Server

Task	Instructions
1. Plan the installation	"Planning the Oracle Essbase Server Installation and Configuration" on page 14
2. Install and configure the Oracle Essbase Server	"Installing and Configuring the Oracle Essbase Server" on page 19
3. Verify the Oracle Essbase Server installation and configuration	"Verifying the Oracle Essbase Server Installation and Configuration" on page 20
4. Register and configure Oracle Essbase Server resources	"Registering and Configuring the Oracle Essbase Server" on page 21
5. Verify the Oracle Essbase Server installation and configuration	"Verifying the HA for Oracle Essbase Server Installation and Configuration" on page 22
6. Tune the Oracle Essbase Server fault monitor	"Tuning the Oracle Essbase Server Fault Monitors" on page 24
7. Debug the Oracle Essbase Server	"Debugging the Oracle Essbase Server" on page 26

Planning the Oracle Essbase Server Installation and Configuration

This section contains the information you need to plan your Oracle Essbase Server installation and configuration.

Note - Before you begin, consult your Oracle Essbase Server documentation for configuration restrictions and requirements that are not stated in Oracle Solaris Cluster documentation or imposed by Oracle Solaris Cluster software. Read all Oracle Essbase Server notes that pertain to your release of Oracle Essbase Server. For more information, see the Oracle Essbase documentation.

Configuration Restrictions for Oracle Essbase Server

The configuration restrictions in the subsections that follow apply only to the Oracle Essbase Server.

- Configure the database resource to be in a different resource group from the Oracle Essbase Server resource, if possible.

However, if you are using Oracle as the database, and if you must configure Oracle in the same resource group as the Oracle Essbase Server resource, ensure that the value of the `restart_type` extension property for Oracle Solaris Cluster HA for Oracle is set to `RESOURCE_RESTART`. This property setting indicates that if the response to a fault in the Oracle database is to restart the Oracle resource, only the Oracle database is restarted. If this property is set to `RESOURCE_GROUP_RESTART`, and if the response to a fault in the Oracle database is to restart the Oracle resource, all the resources in the resource group are restarted.

- Each Oracle Essbase Server instance should be installed as a different user.
- Configure a logical hostname resource that you can use with Oracle Essbase Server. You can use the EPM system registry tool, `epmsys_registry.sh`, to bind a hostname with Essbase Server configuration. You must ensure that if the ESSBASESERVERHOSTNAME property is specified in the essbase.cfg configuration file, the property value must match the hostname value configured in the logical hostname resource. The same logical hostname must have been bound using the `epmsys_registery.sh` utility.

Caution - Your data service configuration might not be supported if you do not observe these restrictions.

For restrictions that apply to all data services, see the *Oracle Solaris Cluster 4.3 Release Notes*.

Configuration Requirements for Oracle Essbase Server

Use the requirements in this section to plan the installation and configuration of the Oracle Essbase Server. These requirements apply only to the Oracle Essbase Server. You must meet these requirements before you proceed with your Oracle Essbase Server installation and configuration.

Information about how to install Oracle Essbase Server version 11.1.2 is published at Oracle Enterprise Performance Management System documentation.

For requirements that apply to all data services, see Chapter 1, “Planning for Oracle Solaris Cluster Data Services” in *Oracle Solaris Cluster 4.3 Data Services Planning and Administration Guide*. For information about Oracle WebLogic server data service, see *Oracle Solaris Cluster Data Service for Oracle WebLogic Server Guide*.

Caution - Your data service configuration might not be supported if you do not adhere to these requirements.

The following configuration requirements apply:

- **UNIX user and group** – The UNIX user and group that are used to install, operate, and manage the Oracle Essbase Server must exist on all cluster nodes where the corresponding resource for the Oracle Essbase Server is configured to come online. The unix user and group for the Oracle Essbase application configured on each node must be exactly same. This user starts the application and the user must exist on every cluster node.
- **File systems** – The file systems used to store the required binaries and data for the Oracle Essbase Server must be configured on highly available file system. If you choose to install the binaries on local storage, install and keep them identical on all the cluster nodes.
- **Database tier dependency** – If the database tier is deployed on the same global cluster, the resource for the Oracle Essbase Server must define a strong resource dependency to the resources for the database server instance and database listener. This ensures that the Oracle Essbase Server will try to start only when the corresponding database is already operational. This configuration is required for a successful startup of the Oracle Essbase Server. If the Oracle database is not managed through Oracle Solaris Cluster, you can also configure the database tier dependency by using the data service delivered as part of the Oracle External Proxy resource.
- **Database client network connection** – The database client used by the Oracle Essbase Server configuration must be configured to connect to the network address that is managed by the cluster framework for the corresponding database server.
- **Storage configuration** – You must ensure that the essbase server application files is accessible to the cluster node on which the resource is brought online. These application files are located in the ARBORPATH location.
- **Weblogic configuration** – If required, you must configure the WLS Administration and Managed Server using the `SUNW.wls` resource type.

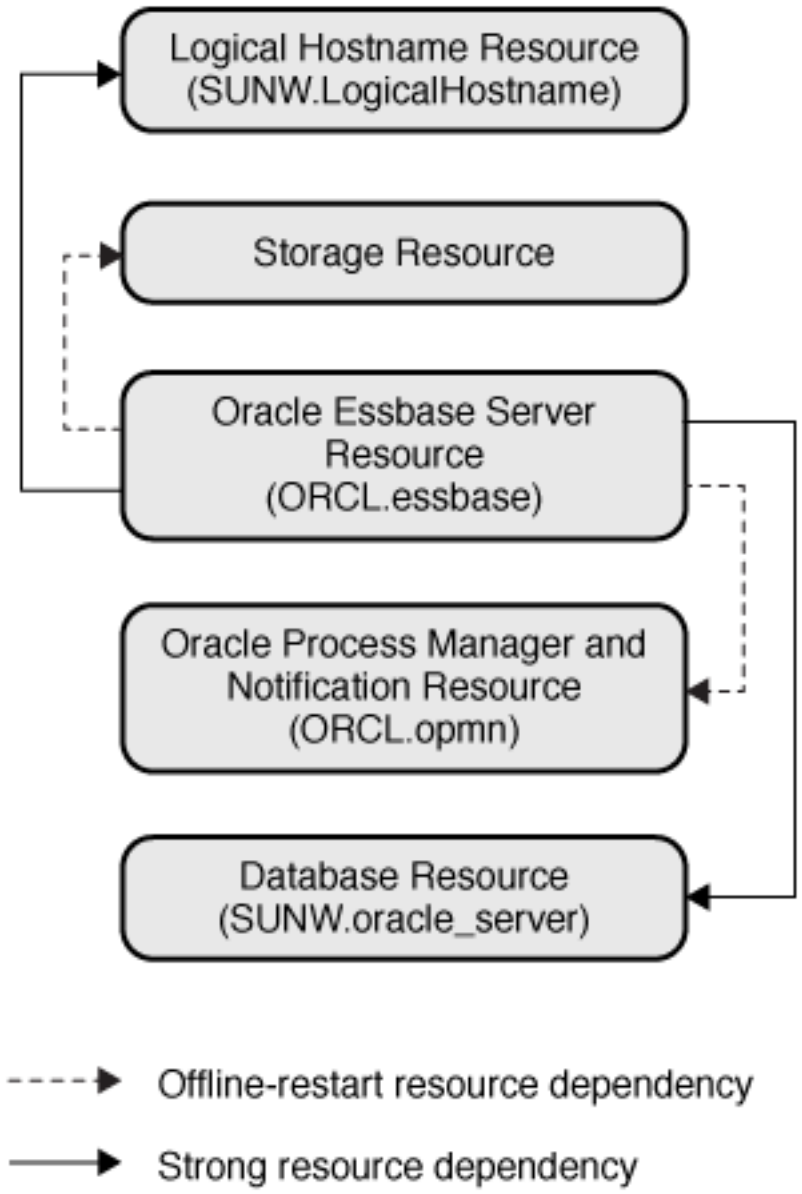
Oracle Essbase Server Data Service Configurations

Use the data service configurations in this section to plan the installation and configuration of the Oracle Essbase Server.

Failover Configuration

When the Oracle Essbase Server software is installed in a traditional file system, a failover deployment requires a configuration where one failover resource group contains the Oracle Essbase Server resource, the logical hostname resource, and the failover storage resource. This type of configuration is shown in the following figure.

FIGURE 1 Failover Configuration



When the Oracle Essbase Server software is installed on NAS, a failover resource group is configured with the logical hostname resource and Oracle Essbase Server resource. A scalable resource group is configured with the NAS storage resource.

Preparing the Nodes and Disks

This section contains the procedure to prepare the nodes and disks.

▼ How to Prepare the Nodes for a Failover Configuration

Use this procedure to prepare for the installation and configuration of Oracle Essbase Server in a failover configuration.

Before You Begin Ensure that the `/etc/netmasks` file has IP-address subnet and netmask entries for all logical hostnames. If necessary, edit the `/etc/netmasks` file to add any missing entries.

1. **Create a failover resource group to hold the logical hostname and the Oracle Essbase Server resources.**

   ```
   # /usr/cluster/bin/clresourcegroup create [-n nodelist] oracle-essbase-server-rg
   ```

2. **Add the logical host name resource.**

   ```
   # clreslogicalhostname create -g oracle-essbase-server-rg  logicalhost
   ```

   The *logicalhost* is the host name where Oracle Essbase Server will be listening.

   Note - If you require a fully qualified hostname, you must specify the fully qualified name with the `-h` option and you cannot use the fully qualified form in the resource name.

3. **Create a highly-available local file system managed by the HAStoragePlus resource.**

   ```
   # /usr/cluster/bin/clresource create -g oracle-essbase-server-rg -t SUNW.HAStoragePlus \
   -p FilesystemMountPoints=oracle-epm-mount-points  oracle-essbase-server-hasp-rs
   ```

   For more information, see Chapter 5, “Creating a Cluster File System” in *Oracle Solaris Cluster 4.3 Software Installation Guide*.

4. **Bring the resource group online.**

   ```
   # /usr/cluster/bin/clresourcegroup online -M oracle-essbase-server-rg
   ```

Installing and Configuring the Oracle Essbase Server

This section contains the procedures to install and configure a Oracle Essbase Server as a cluster resource.

▼ How to Install Oracle Essbase Server Software

1. **On the cluster member where the *oracle-essbase-server-rg* resource group is online, assume the `root` role.**

2. **Follow the instructions in the appropriate Oracle Essbase documentation for your version of the product.**

   See the Oracle Essbase documentation.

   Ensure that you observe the configuration requirements in “Configuration Requirements for Oracle Essbase Server” on page 15.

3. **For multi-master configurations, ensure that each Oracle Essbase Server is configured to listen on each logical hostname or its IP address. To create multiple Oracle Essbase Servers, follow the steps in the Oracle Enterprise Performance Management System documentation.**

4. **Assume a non-root user role to install Oracle Essbase Server. Set the environment variables to invoke the GUI installation of the Oracle Essbase Server application with the logical hostname used by the Oracle Essbase Server.**

   In addition to the required environment variables that are explained in the Oracle Essbase Server Installation Guide, you must set up the following variables after you configure the Oracle Essbase Server:

   - `SC_LHOSTNAME`
   - `LD_PRELOAD_32`
   - `LD_PRELOAD_64`

   Set `SC_LHOSTNAME` to the logical hostname where the Oracle Essbase Server can be reached from the web tier. For more details, refer to the `libschost.so.1`(1) man page.

Set these environment variables for the profile of the user that operates the Oracle Essbase Server. Ensure that the login for the user is noninteractive. If you invoke the `root` user, you must see these variables displayed:

```
# su - essbase -c "env"
```

Symlinks are created for the `libschost.so.1` to `/usr/lib/secure/`.

```
# ln -s /usr/cluster/lib/libschost.so.1 /usr/lib/secure/libschost.so.1

# ln -s /usr/cluster/lib/64/libschost.so.1 /usr/lib/secure/64/libschost.so.1
```

Following is part of a sample `.profile` file that contains the environment variables for the `essbase` application user on the cluster node:

```
LD_PRELOAD_32=:/usr/lib/secure/libschost.so.1
LD_PRELOAD_64=:/usr/lib/secure/64/libschost.so.1
SC_LHOSTNAME=pole-2
export LD_PRELOAD_32 LD_PRELOAD_64 SC_LHOSTNAME
```

Verifying the Oracle Essbase Server Installation and Configuration

This section contains the procedure to verify the Oracle Essbase Server installation and configuration.

▼ How to Verify the Oracle Essbase Server Installation and Configuration for Failover Services

Use this procedure to verify the Oracle Essbase Server installation and configuration. This procedure does not verify that your application is highly available because you have not yet installed the data service.

1. **Verify that the** *logicalhost-1* **configured in** *oracle-essbase-server-rg* **is online on** *node1***.**
2. **If you are using a database, verify that the database is running.**
3. **Verify the status of the Oracle Essbase Server.**

```
# su - essbase
$ cd Instance_bin_dir
$ ./opmnctl status
```

where *Instance_bin_dir* is the instance directory of Oracle Essbase Server that contains the `opmnctl` utility.

4. **Stop the Oracle Essbase Server.**

```
# su - essbase -c "opmnctl stopproc ias-component=EssbaseInstanceName"
```

where *EssbaseInstanceName* is the name of the Oracle Essbase Server Instance for which the resource is configured. By default, the value of *EssbaseInstanceName* is `Essbase1`.

5. **Switch the Oracle Essbase resource group to another cluster member.**

```
# /usr/cluster/bin/clresourcegroup switch -n node oracle-essbase-server-rg
```

6. **Repeat all steps until you have tested all the potential nodes where the Oracle Essbase Server can run.**

If the clients can successfully connect to the Oracle Essbase Server on each of the potential master nodes, you have successfully configured theOracle Essbase Server to work with the HA for Enterprise Server.

Registering and Configuring the Oracle Essbase Server

This section contains the procedures to configure or unconfigure the Oracle Essbase Server.

▼ How to Register and Configure Oracle Essbase Server for Failover

Use this procedure to configure Oracle Solaris Cluster HA for Oracle Essbase Server as a failover data service.

Before You Begin Install the data service package during your initial Oracle Solaris Cluster installation. If you did not install the Oracle Essbase Server package as part of your initial Oracle Solaris installation, go to “Installing the HA for Oracle Essbase Server Package” on page 10.

1. **On the cluster node that hosts the Oracle Essbase Server, assume the `root` role that provides `solaris.cluster.modify` and `solaris.cluster.admin` RBAC authorizations.**

2. **Register the `ORCL.essbase` resource type.**

```
# /usr/cluster/bin/clresourcetype register ORCL.essbase
```

3. **Create a Oracle Essbase Server resource in the failover resource group.**

```
# clresource create -g oracle-essbase-server-rg -d \
-t ORCL.essbase \
-p Application_user="essbase" \
-p COMPONENT_INSTANCE=Essbase1 \
-p ARBORPATH=arborpath \
-p resource_dependencies=logicalhost \
-p resource_dependencies_offline_restart=oracle-essbase-server-hasp-rs oracle-essbase-server-rs
```

   where *arborpath* is the home directory path for the Oracle Essbase Server that is deployed.

4. **set offline restart dependency on opmn resource.**

```
# /usr/cluster/bin/clresource set -p resource_dependencies_offline_restart=opmn-rs
 oracle-essbase-server-rs
```

5. **If the database is deployed on the same global cluster, configure a strong dependency to the resources for the database instance.**

   Perform this step if the database tier is deployed in a different zone cluster of the same global cluster.

```
# /usr/cluster/bin/clresource set -p resource_dependencies+=db-instance-resource \
oracle-essbase-server-rs
```

6. **Enable the Oracle Essbase Server resource.**

```
# /usr/cluster/bin/clresource status
# /usr/cluster/bin/clresource enable oracle-essbase-server-rs
```

Verifying the HA for Oracle Essbase Server Installation and Configuration

This section contains the procedure to verify that you installed and configured the Oracle Essbase Server resource correctly.

▼ How to Verify the Oracle Essbase Server Installation and Configuration in a Failover Configuration

Use this procedure to verify that you installed and configured the Oracle Essbase Server correctly.

1. **On the cluster node that hosts the resource group that contains the Oracle Essbase Server resource, assume the `root` role that provides `solaris.cluster.modify` and `solaris.cluster.admin` RBAC authorizations.**

2. **Switch the Oracle Essbase Server resource group to another cluster member.**

   ```
   # /usr/cluster/bin/clresourcegroup switch -n node oracle-essbase-server-rg
   ```

3. **Verify the status of the Oracle Essbase Server.**

   ```
   # cd /tmp && /bin/su orax -c "/usr/bin/newtask -p default /usr/bin/env LANG=C LC_ALL=C \
   \
   /global/orax/Oracle/Middleware/EPMSystem11R1/../user_projects/epmsystem1/bin/opmnctl
    status"

   Processes in Instance: EPM_epmsystem1
   ---------------------------------+-------------------+---------+---------
   ias-component | process-type | pid | status
   ---------------------------------+-------------------+---------+---------
   Essbase1 | EssbaseAgent | 4580 | Alive
   ```

4. **Verify the status of the Oracle Essbase Server resource.**

   ```
   # /usr/cluster/bin/clresource status oracle-essbase-server-rs
   ```

5. **Repeat all steps until you have tested all the potential nodes where the Oracle Essbase Server can run.**

   After the Oracle Essbase Servers are in production under Oracle Solaris Cluster control, do not start or stop the servers manually or through the Server Manage Management Console. If you do need to perform maintenance on the servers, you must first disable their associated resources.

Removing Oracle Essbase Server Resource From a Failover Resource Group

This section contains the procedure to remove the Oracle Essbase Server resource from a failover resource group.

▼ How to Remove a Oracle Essbase Server Resource From a Failover Resource Group

1. **On the cluster node that hosts Oracle Essbase Server resource, assume the `root` role that provides `solaris.cluster.modify` and `solaris.cluster.admin` RBAC authorizations.**

2. **Disable and remove the resource that is used by the Oracle Essbase Server data service.**

```
# /usr/cluster/bin/clresourcegroup disable oracle-essbase-server-rs
# /usr/cluster/bin/clresourcegroup delete oracle-essbase-server-rs
```

Tuning the Oracle Essbase Server Fault Monitors

This section describes the Oracle Essbase Server fault monitor's probing algorithm or functionality, and states the conditions, messages, and recovery actions associated with unsuccessful probing:

- "Resource Properties" on page 24
- "Probing Algorithm and Functionality" on page 25
- "Operation of the Oracle Essbase Server Probe" on page 25

For conceptual information about fault monitors, see the *Oracle Solaris Cluster 4.3 Concepts Guide*.

Resource Properties

The Oracle Essbase Server fault monitor uses the resource properties that are specified in the resource type `ORCL.essbase`. See the `r_properties(5)` man page for a list of general resource

properties used. See “ORCL.essbase Extension Properties” on page 43 for a list of resource properties for this resource type.

Probing Algorithm and Functionality

The Oracle Essbase Server is controlled by extension properties that control the probing frequency. The default values of these properties determine the preset behavior of the fault monitor and are suitable for most Oracle Solaris Cluster installations.

You can modify this preset behavior by modifying the following settings:

- The interval between fault monitor probes (`Thorough_probe_interval`).
- The timeout for fault monitor probes (`Probe_timeout`).
- The number of times the fault monitor attempts to restart the resource (`Retry_count`). The HA for Oracle Essbase Server fault monitor checks the server status within an infinite loop. During each cycle, the fault monitor checks the server state and reports failure or success.
- If the fault monitor is successful, it returns to its infinite loop and continues the next cycle of probing and sleeping.
- If the fault monitor reports a failure, a request is made to the cluster to restart the resource. If the fault monitor reports another failure, another request is made to the cluster to restart the resource. This behavior continues whenever the fault monitor reports a failure. If successive restarts exceed the `Retry_count` within the `Thorough_probe_interval`, a request is made to fail over the resource group onto a different node.

Operation of the Oracle Essbase Server Probe

The following list explains how the Oracle Essbase Server probe operates:

- Because the Oracle Essbase Server component is under the control of Oracle Process Management and Notification (OPMN) Server component, the `ORCL.opmn` fault probe obtains the status of the Oracle Essbase Server component from the OPMN Server component. The following commands show how the status is obtained:

  1. Check whether an Oracle Essbase Server component is found in the output of the following command:

     ```
     $ opmnctl status ias-component=COMPONENT-INSTANCE | grep Ess
     ```

  2. Check whether the status of the Oracle Essbase Server component is `ALIVE`.

     ```
     $ opmnctl status ias-component=COMPONENT-INSTANCE -noheaders -fmt "%sta"
     ```

- If the fault probe is successful, the resource status is set to `OK`. The probe returns with an exit code of `0`.
- If the fault probe fails, the resource status is set to `FAULTED`. The probe returns with an exit code of `100`, causing the resource to attempt to restart.

Note - The Oracle Essbase Server probe also checks for the strong and offline restart resource dependencies on a database resource, `ORCL.opmn`, and storage resource respectively. If database resource is not in the online state, `ORCL.essbase` resource acquires a degraded status.

- If the Oracle Essbase Server resource is repeatedly restarted and subsequently exhausts the `Retry_count` within the `Retry_interval`, and if `Failover_enabled` is set to `True`, a failover to another node is initiated for the resource group.

Debugging the Oracle Essbase Server

The data service for Oracle Essbase Server has an extension property named `debug_level`. This extension property enables you to activate and deactivate debugging for Oracle Essbase Server resources.

How to Activate Debugging for Oracle Essbase Server

1. **Edit the `/etc/syslog.conf` file on the appropriate node to change `daemon.notice` to `daemon.debug`.**
2. **Add `/var/cluster/logs/DS/ORCL.essbase/message_log_$RESOURCE` to the `/etc/syslog.conf` file.**
3. **Confirm that debugging for the Oracle Essbase Server is active.**

```
# grep daemon /etc/syslog.conf
*.err;kern.debug;daemon.debug;mail.crit /var/cluster/logs/DS
     /ORCL.essbase/message_log_$RESOURCE
*.alert;kern.err;daemon.err operator
```

4. **Restart the `syslogd` daemon.**

```
# svcadm refresh svc:/system/system-log:default
```

5. **Set the property `debug_level` to level 2.**

```
# /usr/cluster/bin/clresource set -p debug_level=2 oracle-essbase-server-rs
```

For more information about the `debug_level` property, see the `ORCL.gds(5)` man page.

▼ How to Deactivate Debugging for Oracle Essbase Server

1. **Edit the `/etc/syslog.conf` file on the appropriate node to change `daemon.debug` to `daemon.notice`.**

2. **Determine if debugging for the Oracle Essbase Server is not active.**

```
# grep daemon /etc/syslog.conf
*.err;kern.debug;daemon.notice;mail.crit /var/cluster/logs/DS
     /ORCL.essbase/message_log_$RESOURCE
*.alert;kern.err;daemon.err operator
```

3. **Restart the `syslogd` daemon.**

```
# svcadm refresh svc:/system/system-log:default
```

4. **Set the property `debug_level` to level 0.**

```
# clresource set -p debug_level=0
```

♦ ♦ ♦ APPENDIX A

Oracle HA for Oracle Essbase Server Extension Properties

Extension properties for the Oracle HA for Oracle Essbase Server EnterpriseOne Enterprise Server resource type are described below.

For details about system-defined properties, see the `r_properties(5)` man page and the `rg_properties(5)` man page.

`ORCL.essbase` Extension Properties

The `ORCL.essbase` resource type represents the Oracle Essbase Server in an Oracle Solaris Cluster configuration. The extension properties of this resource type are as follows:

Monitor_retry_count

Specifies the number of time the PMF restarts for fault monitor.

Data Type: Integer

Default: 4

Tunable: Any time

`Monitor_retry_interval`

Indicates the time in minutes, over which the failures of the fault monitor are counted, and corresponds to the `-t` option passed to the `pmfadm` command. If the number of times the fault monitor fails exceeds the value of `Monitor_retry_count`, the fault monitor is not restarted by the process monitor facility.

Data Type: Integer

Default: 2

Tunable: Any time

Boot_command

Specifies the command that run the boot method.

Data Type: String

Default: ""

Tunable: When disabled

Child_mon_level

This property provides control over the processes that are monitored through the Process Monitor Facility (PMF). This property denotes the level to which the forked children processes are monitored. Omitting this property or setting this property to the default value is the same as omitting the -C option for pmfadm(1M): all children (and their descendents) are monitored.

Data Type: Integer

Default: -1

Tunable: At creation

Debug_gds

Controls GDS code debugging.

Data Type: Boolean

Default:FALSE

Tunable: Any time

Fini_command

Command to run by the Fini method.

Data Type: String

Default: ""

Tunable: When disabled

Interpose_logical_hostname

Specifies the interpose logical hostname instead of physical hostname

Data Type: String

Default: ""

Tunable: None

Init_command

Command to run by the Init method.

Data Type: String

Default: ""

Tunable: When disabled

Num_probe_timeouts

Specifies the number of probe timeouts before declaring a complete failure.

Data Type: Integer

Default: 2

Min: 1

Tunable: Any time

PMF_managed

Specifies if the application is under PMF control.

Data Type: Boolean

Default: FALSE

Tunable: none

Probe_command

Specifies the command run by the gds_probe function

Data Type: String

Default: opt/ORCLscessbase/bi n/essbase_probe –R *RS_NAME* –G *RG_NAME* –T *RT_NAME*

Tunable: None

Probe_timeout

This property is the timeout value (in seconds) used by the fault monitor to probe a Oracle Essbase Server instance.

Data Type: Integer

Default: 30

Min: 2

Tunable: Any time

Start_command

Specifies the command run by the start function

Data Type: String

Default: opt/ORCLscessbase/bi n/essbase_start –R *RS_NAME* –G *RG_NAME* –T *RT_NAME*

Tunable: None

Start_exit_on_error

When this property is set to true, the START exits if `start_command` fails to start the application.

Data Type: Boolean

Default: False

Tunable: When disabled

`Stop_command`

Specifies the command run by the stop method

Data Type: String

Default: `opt/ORCLscessbase/bi n/essbase_stop –R` *RS_NAME* `–G` *RG_NAME* `–T` *RT_NAME*

Tunable: None

Stop_exit_on_error

When this property is set to true, the STOP method exits if `stop_command` fails to start the application.

Data Type: Boolean

Default: False

Tunable: When disabled

`Stop_signal`

This property controls the stop signal sent to the application.

Data Type: Integer

Default: 15

Min: 1

Max: 37

Tunable: When disabled

`Validate_command`

This property validates the application.

Data Type: String

Default: `opt/ORCLscessbase/bi n/essbase_validate –R` *RS_NAME* `–G` *RG_NAME* `–T` *RT_NAME*

Tunable: When disabled

Wait_for_online

Used to determine if the application should be probed before declaring a successful start.

Data Type: Boolean

Default: True

Tunable: When disabled

Wait_probe_limit

Specifies the number of wait for online probes to perform when starting the resource

Data Type: Integer

Default: 0

Min: 0

Tunable: When disabled

`Debug_Level`

This property controls the debug level for the control script and its functions.

Data Type: Integer

Default: 0

Min: 0

Max: 3

Tunable: Anytime

COMPONENT_INSTANCE

Name of the Oracle essbase server instance.

Data Type: String

Default: `Essbase1`

Tunable: When disabled

ARBORPATH

Path of the home directory for essbase application server

Data Type: String

Default: ""

Tunable: When disabled

Application_user

User name that is used to administer the application.

Data Type: String

Default: ""

Tunable: When disabled

Index

O

P

R

S

T

V

W