Oracle Restart

Objectives

After completing this lesson, you should be able to use Oracle Restart to manage components.
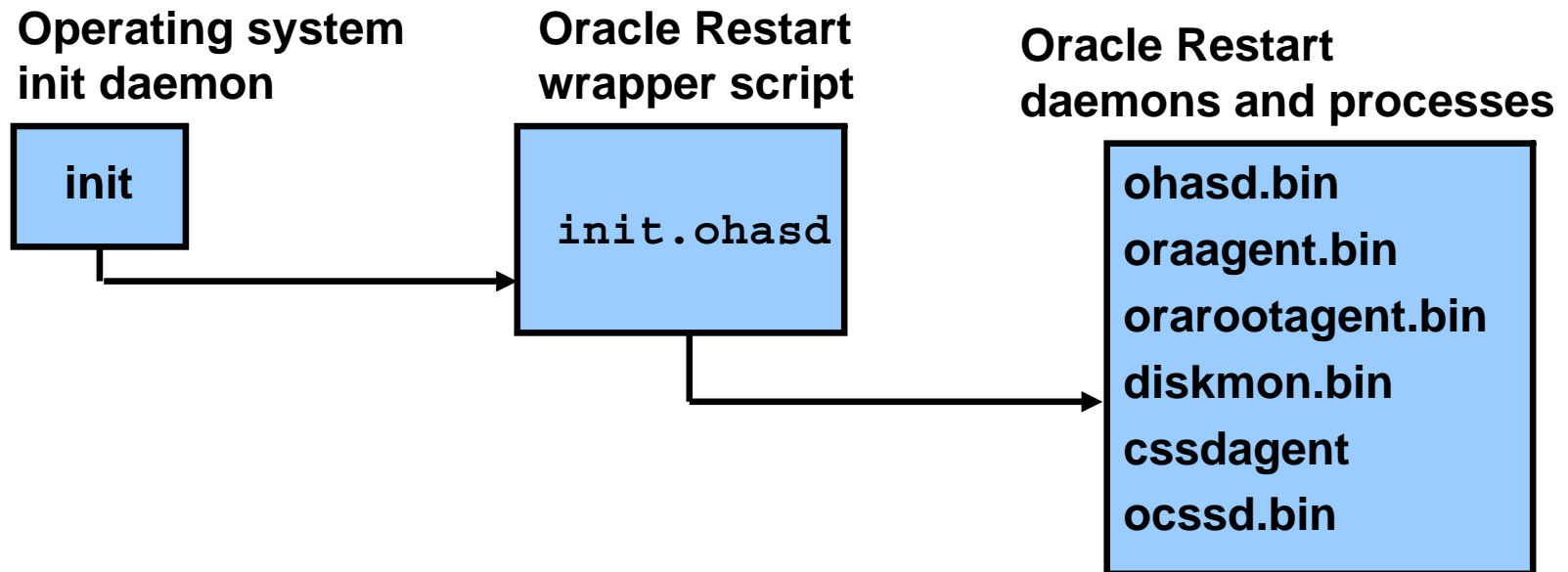
ORACLE

Oracle Restart

Oracle Restart implements a high availability solution for stand-alone Oracle databases.

- Can monitor and restart the following components:
  - Database instances
  - Oracle Net listener
  - Database services
  - Automatic Storage Management (ASM) instance
  - ASM disk groups
  - Oracle Notification Services (ONS/eONS)
- Runs periodic check operations to monitor the health of the components
- Runs out of the Oracle Grid Infrastructure home, which you install separately from Oracle Database homes

ORACLE

Oracle Restart Process Startup

- Oracle Restart is started by the OS init daemon.

Operating system init daemon

init

Oracle Restart wrapper script

init.ohasd

Oracle Restart daemons and processes

ohasd.bin

oraagent.bin

orarootagent.bin

diskmon.bin

cssdagent

ocssd.bin

- The Oracle Restart installation modifies the `/etc/inittab` file to ensure start up every time the machine starts.

```
# cat /etc/inittab
..
h1:35:respawn:/etc/init.d/init.ohasd run >/dev/null 2>&1 </dev/null
```

ORACLE

Controlling Oracle Restart

The CRSCTL utility can be used to control the state of Oracle Restart.

- To display the Oracle Restart configuration:

```
$ crsctl config has
```

- To enable or disable the automatic restart of Oracle Restart:

```
$ crsctl [ enable | disable ] has
```

- To start or stop Oracle Restart:

```
$ crsctl [ start | stop ] has
```

ORACLE

Choosing the Correct SRVCTL Utility

- Invoke the Server Control (SRVCTL) utility from the Oracle Grid Infrastructure home when working with ASM instances, disk groups, listeners, and ONS.

```
$ export ORACLE_HOME=/u01/app/oracle/product/11.2.0/grid
$ $ORACLE_HOME/bin/srvctl command component options
```

- Invoke the SRVCTL utility from the Oracle Database home when working with the database or database instance.

```
$ export
ORACLE_HOME=/u01/app/oracle/product/11.2.0/dbhome_1
$ $ORACLE_HOME/bin/srvctl command component options
```

ORACLE

Oracle Restart Configuration

Oracle utilities will automatically update the Oracle Restart configuration.

Create operations and the Oracle Restart configuration	Automatically added to configuration?
Create a database with OUI or DBCA	YES
Create a database with SQL statement	NO
Create an ASM instance with OUI, DBCA, or ASMCA	YES
Create a disk group (any method)	YES
Add a listener with NETCA	YES
Create a database service with SRVCTL	YES
Create a database service by modifying `SERVICE_NAMES` initialization parameter	NO
Create a database service with `DBMS_SERVICE.CREATE SERVICE`	NO

ORACLE

Using the SRVCTL Utility

- The SRVCTL utility is used to start, stop, and manage Oracle Restart components with the following syntax:

```
$ srvctl command component options
```

- The following command and components are supported:

Commands	add config disable enable getenv modify remove setenv start status stop unsetenv
Components	asm db dg filesystem home lsnr serv ons eons

ORACLE

Obtaining Help for the SRVCTL Utility

The SRVCTL utility provides online help for its commands, components, and options.

- For help with general usage:

```
$ srvctl -h
```

- For help on a particular command:

```
$ srvctl command -h
```

- For help on a particular command and component:

```
$ srvctl command component -h
```

ORACLE

Starting Components by Using the SRVCTL Utility

Oracle recommends that the SRVCTL utility be used to start all components.

- Examples of starting individual components:

```
$ srvctl start database -d PROD -o mount
$ srvctl start listener -l crmlistener
$ srvctl start service -d PROD -s "service1,service2"
$ srvctl start diskgroup -g "DATA,FRA"
$ srvctl start asm
$ srvctl start eons -v
$ srvctl start ons
```

- Example of starting all Oracle Restart components in a specified Oracle home:

```
$ srvctl start home -o oracle_home -s state_file
```

ORACLE

Stopping Components by Using the SRVCTL Utility

Oracle recommends that the SRVCTL utility be used to stop all components.

- Examples of stopping individual components:

```
$ srvctl stop database –d PROD –o transactional
$ srvctl stop listener –l crmlistener -f
$ srvctl stop service –d PROD –s "service1,service2"
$ srvctl stop diskgroup –g "DATA,FRA" -f
$ srvctl stop asm –o immediate -f
$ srvctl stop eons -v
$ srvctl stop ons
```

- Example of stopping all Oracle Restart components in a specified Oracle home:

```
$ srvctl stop home –o oracle_home –s state_file -f
```

Viewing Component Status

- You can use the `status` command to view the running status for any component managed by Oracle Restart.

- Display the running status for a database:

```
$ srvctl status database -d orcl
Database is running.
```

- Display the listener status:

```
$ srvctl status lsnr
Listener LISTENER is enabled
Listener LISTENER is running on node(s): host01
```

ORACLE

Displaying the Oracle Restart Configuration for a Component

- You can use the `config` command to display the Oracle Restart configuration of a component.

- Display the Oracle Restart configuration for a database:

```
$ srvctl config database -d orcl
Database unique name: orcl
Database name: orcl
Oracle home: /u01/app/oracle/product/11.2.0/dbhome_1
Oracle user: oracle
Spfile: +DATA/orcl/spfileorcl.ora
Domain: example.com
Start options: open
Stop options: immediate
Database role:
Management policy: automatic
Disk Groups: DATA,FRA
Services: east,sales
```

ORACLE

Manually Adding Components to the Oracle Restart Configuration

Components can be manually added to the Oracle Restart configuration with the `add` command.

- To define a new listener that was not created with NETCA, use the following syntax:

```
$ srvctl add listener –l MYLISTENER -p TCP:1525 –o
/u01/app/oracle/product/11.2.0/grid
```

- To specify a nondefault location for the new listener's networking files, use the following syntax:

```
$ srvctl setenv listener –l MYLISTENER –t
TNS_ADMIN=/usr/local/oracle
```

ORACLE

Quiz

You invoke the SRVCTL utility from the Oracle Grid Infrastructure home when working with:

1. Listeners
2. ASM instances
3. Database instances
4. ASM disk groups

ORACLE

Summary

In this lesson, you should have learned how to use Oracle Restart to manage components.

ORACLE

Practice 3-1: Overview

In this practice, you use Oracle Restart to manage components.

ORACLE