Practice 17

Deleting an Oracle RAC Node from a Cluster

Practice Overview

In this practice you will perform the procedure to delete the Oracle RAC node `srv2` from the Oracle RAC database cluster `rac`

In high level, you will perform the following:

- Delete `rac2` instance from `srv2`

- Remove Oracle RAC software home from `srv2`

- Remove Oracle Clusterware software home from `srv2`

- Delete the cluster node `srv2` from the cluster

Practice Assumptions

The practice assumes that you have the Oracle RAC database up and running in the virtual machines `srv1` and `srv2`.

Caution:

Many of the *destructive* commands in this practice should be executed in specific node. Be cautious when executing those commands. Make sure you execute the code on the right node. Executing one command in the wrong node may easily end up with losing the node that you want to keep.

Practice Procedures

A. Deleting Oracle Database Instance from `srv2`

In the following steps you will delete the Oracle database instance `rac2` from the Oracle RAC database `rac`

1. In a Putty session, login to `srv2` as `grid` user

2. Verify the database is up and running on each node

   ```
   srvctl status database -d rac
   ```

3. Verify there is a current backup of OCR.

   Note: To manually take backup of the OCR, run the command:

   ```
   /u01/app/12.2.0/grid/bin/ocrconfig –manualbackup
   ```

   ```
   /u01/app/12.2.0/grid/bin/ocrconfig -showbackup
   ```

4. In `srv1`, start `dbca` and delete the instance `rac2`

   Caution: implement the following action in **srv1**

   a. Login to the VirtualBox window of `srv1` as `oracle`

   b. Open a terminal window and start the dbca utility

   c. Respond to the dbca utility windows as follows:

Window	Action
Database Operation	Select the following option: **Oracle Database Instance Management**
Instance Operation	Select the following option: **Delete an instance**
Select Database	Enter the User name as `SYS` and its password.
Instance Details	Select **rac2**
Summary	Click on **Finish** button When the confirmation message is displayed, click on **OK** button
Finish	Click on **Close** button

5. Verify that the instance has been removed from the database.

   ```
   srvctl config database -db rac
   ```

6. Open a new Putty session. Login to `srv1` as `oracle`

7. Verify that the dropped instance's redo thread has been removed.

   Only thread number 1 should be retrieved by the query.

   ```
   sqlplus / as sysdba
   SELECT GROUP#,THREAD#, STATUS FROM V$LOG ;
   ```

B. Removing Oracle Database Software home from `srv2`

In the following steps you will remove the Oracle database software home from `srv2` and update inventories on the remaining nodes.

8. In `srv2`, check the status of the listener.

   ```
   srvctl status listener -node srv2
   ```

9. Disable and stop the listener in `srv2`

   ```
   srvctl stop listener -listener LISTENER -node srv2
   srvctl disable listener -listener LISTENER -node srv2
   ```

10. Change the current user to `oracle`

    ```
    su - oracle
    ```

11. Uninstall the Oracle home from `srv2`

    Caution: implement the following action in **srv2**

    When the script asks to specify the list of database names, just press on [ENTER] key

    When the script asks about a confirmation to continue, press on `y`

    ```
    $ORACLE_HOME/deinstall/deinstall -local
    ```

C. Removing Oracle Clusterware software home from `srv2`

In the following steps you will remove Oracle clusterware software from `srv2`

12. In `srv2` Putty session, switch the current user to `root`

13. Verify that `srv2` node is active unpinned.

    ```
    /u01/app/12.2.0/grid/bin/olsnodes -s -t
    ```

14. In `srv2` Putty session, switch the current user to `grid`

15. Remove Oracle Clusterware home from `srv2`

When you ran the script below, it will ask you to run specific script (`rootcrs.sh`) with specific options as root in `srv2`. Open another Putty session, login to `srv2` as root, and execute the given script over there.

The script should finish with the message "Successfully detached Oracle home".

```
/u01/app/12.2.0/grid/deinstall/deinstall -local
```

D. Deleting the cluster node `srv2` from the cluster

In the following steps you will delete the node `srv2` from the cluster.

16. In `srv1` Putty session, delete the node `srv2` from the cluster.

```
/u01/app/12.2.0/grid/bin/crsctl delete node -n srv2
```

17. Switch the current user to `grid`

```
su - grid
```

18. Run the following CVU command to verify that srv2 has been successfully deleted from the cluster.

```
/u01/app/12.2.0/grid/bin/cluvfy stage -post nodedel -n srv2 -verbose
```

Summary

Removing an Oracle RAC node from a database cluster is a systematic procedure. It goes through the following sequential actions:

- Delete `rac2` instance from `srv2`

- Remove Oracle RAC software home from `srv2`

- Remove Oracle Clusterware software home from `srv2`

- Delete the cluster node `srv2` from the cluster