**Practices for Lesson 13**

**Oracle RAC One Node**

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**Practices for Lesson 13: Overview**

**Practices Overview**

In these practices, you will create a RAC One Node Database

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# Practice 11-1: RAC One Node

### Overview

In this practice, you will create a RAC One Node database. You will perform an online database relocation. Finally, you will convert the RAC One Database to an Oracle RAC database.

1. From a terminal session on your classroom PC, execute ssh oracle@ol7-122-rac1 to open a terminal session on ol7-122-rac1 as the oracle user. Set the environment and check the status of the database.

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| [vncuser@*classroom\_pc* ~]$ **ssh oracle@ol7-122-rac1**  oracle@ol7-122-rac1's password:  [oracle@ol7-122-rac1 ~]$ **. oraenv**  ORACLE\_SID = [oracle] ? **cdbrac**  The Oracle base has been set to /u01/app/oracle [oracle@ol7-122-rac1 ~]$ **srvctl status database –d cdbrac**  [oracle@ol7-122-rac1 ~]$ |

1. Stop the instance on host02. Verify the database status.

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| [oracle@ol7-122-rac1 ~]$ **srvctl stop instance -f -d cdbrac -n ol7-122-rac2**  [oracle@ol7-122-rac1 ~]$ **srvctl status database -d cdbrac**  [oracle@ol7-122-rac1 ~]$ |

1. An active service is needed to convert the RAC database to RACONENODE. Create a service called SERV1.

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| [oracle@ol7-122-rac1 ~]$ **srvctl add service -d cdbrac -s SERV1 - serverpool cdbracdb**  [oracle@ol7-122-rac1 ~]$ |

1. Use the srvctl utility to convert the RAC database to RACONENODE.

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| [oracle@ol7-122-rac1 ~]$ **srvctl convert database -d cdbrac -c RACONENODE**  [oracle@ol7-122-rac1 ~]$ |

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1. From the oracle terminal session, check your database configuration using the srvctl

utility.

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| [oracle@ol7-122-rac1 ~]$ **srvctl config database -db cdbrac**  Database unique name: orcl Database name: orcl  Oracle home: /u01/app/oracle/product/12.1.0/dbhome\_1 Oracle user: oracle  Spfile: +DATA/ORCL/PARAMETERFILE/spfile.279.868817789  Password file: +DATA/ORCL/PASSWORD/pwdorcl.276.868816925 Domain:  Start options: open Stop options: immediate Database role: PRIMARY  Management policy: AUTOMATIC Server pools: orcldb Database instances:  Disk Groups: DATA,FRA Mount point paths: Services: serv1 **Type: RACOneNode**  Online relocation timeout: 30 Instance name prefix: orcl Candidate servers:  OSDBA group: dba OSOPER group: oper Database instances:  Database is policy managed  [oracle@ol7-122-rac1 ~]$ |

1. Use the srvctl utility to check the status of the orcl database.

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| [oracle@ol7-122-rac1 ~]$ **srvctl status database -db cdbrac**  Instance orcl\_3 is running on node ol7-122-rac1 Online relocation: INACTIVE  [oracle@ol7-122-rac1 ~]$ |

1. Execute srvctl relocate database –help to view command usage.

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| [oracle@ol7-122-rac1 ~]$ **srvctl relocate database -help**  Initiate online relocation of the RAC One Node database. |

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| Usage: srvctl relocate database -db <db\_unique\_name> {[-node  <target>] [-timeout <timeout>] [-stopoption <stop\_option>] | - abort [-revert]} [-verbose]  -db <db\_unique\_name> Unique name of database to relocate  -node <target> Target node to which to relocate database  -timeout <timeout> Online relocation timeout in minutes  -abort Abort failed online  relocation  -revert Remove target node of failed online relocation request from the candidate server list of administrator-managed RAC One Node database  -stopoption <stop\_option> Override default shutdown option for running instance (only NORMAL allowed)  -verbose Verbose output  -help Print usage  [oracle@ol7-122-rac1 ~]$ |

1. In this example, the orcl\_3 instance was running initially on ol7-122-rac1. Use srvctl to perform an online database relocation from ol7-122-rac1 to host02.

#### Immediately after issuing the command, proceed to the next step!

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| [oracle@ol7-122-rac1 ~]$ **srvctl relocate database -db cdbrac –node ol7-122-rac2 -w 15 -v**  <<< Immediately go to the next step>>>  Configuration updated to two instances Instance orcl\_1 started  Services relocated  Waiting for up to 15 minutes for instance orcl\_3 to stop ... Instance orcl\_3 stopped  Configuration updated to one instance  [oracle@ol7-122-rac1 ~]$ |

1. Open another terminal window as oracle, set the environment and issue the srvctl status database -db orcl command several times to monitor the migration process until the relocation command finishes in the first terminal.

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| [vncuser@classroom\_pc ~]$ **ssh oracle@ol7-122-rac1**  oracle@ol7-122-rac1's password:  [oracle@ol7-122-rac1 ~]$ . oraenv |

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| --- |
| ORACLE\_SID = [oracle] ? orcl  The Oracle base has been set to /u01/app/oracle  [oracle@ol7-122-rac1 ~]$ **srvctl status database -db cdbrac**  **# wait for minutes**  [oracle@ol7-122-rac1 ~]$ **srvctl status database -db cdbrac**  **# wait for minutes**  [oracle@ol7-122-rac1 ~]$ **srvctl status database -db cdbrac** |

1. Let’s convert the RAC One Node database to a RAC database. First, shut down the RAC One Node database.

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| [oracle@ol7-122-rac1 ~]$ **srvctl stop database -db cdbrac**  [oracle@ol7-122-rac1 ~]$ |

1. Use srvctl to convert the database to RAC and restart the database. Check the database status to make sure that both the instances are up.

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| [oracle@ol7-122-rac1 ~]$ **srvctl convert database -db cdbrac -dbtype RAC**  [oracle@ol7-122-rac1]$ **srvctl start database -db cdbrac**  [oracle@ol7-122-rac1]$ **srvctl status database -d cdbrac** Instance orcl\_1 is running on node host02 Instance orcl\_2 is running on node ol7-122-rac1  [oracle@ol7-122-rac1]$ |

1. Execute the srvctl status service command to view the services configuration. Note that the serv1 service is running on all nodes. Stop the service and remove it.

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| [oracle@ol7-122-rac1 ~]$ **srvctl status service -d cdbrac**  Service serv1 is running on nodes: ol7-122-rac1,host02 |

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| --- |
| [oracle@ol7-122-rac1 ~]$ **srvctl stop service -db cdbrac -service serv1**  [oracle@ol7-122-rac1 ~]$ **srvctl remove service -db cdbrac -service serv1**  [oracle@ol7-122-rac1 ~]$ |

1. Execute the srvctl config database command to view the database configuration.

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| --- |
| [oracle@ol7-122-rac1 ~]$ **srvctl config database -d cdbrac**  Database unique name: orcl Database name: orcl  Oracle home: /u01/app/oracle/product/12.1.0/dbhome\_1 Oracle user: oracle  Spfile: +DATA/ORCL/PARAMETERFILE/spfile.279.868817789  Password file: +DATA/ORCL/PASSWORD/pwdorcl.276.868816925 Domain:  Start options: open Stop options: immediate Database role: PRIMARY  Management policy: AUTOMATIC Server pools: orcldb  Disk Groups: DATA,FRA Mount point paths: Services:  **Type: RAC**  Start concurrency: Stop concurrency: OSDBA group: dba OSOPER group: oper Database instances: Configured nodes:  Database is policy managed  [oracle@ol7-122-rac1 ~]$ |

1. Exit all terminal windows opened for this practice.

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