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|  | **Move OCR , Vote File , ASM SPILE to new Diskgroup (Doc ID 1638177.1)** | [To Bottom](https://support.oracle.com/epmos/faces/DocumentDisplay?_afrLoop=524041229466755&amp;id=1638177.1&amp;_adf.ctrl-state=ua5l1vxjq_72)  [To Bottom](https://support.oracle.com/epmos/faces/DocumentDisplay?_afrLoop=524041229466755&amp;id=1638177.1&amp;_adf.ctrl-state=ua5l1vxjq_72) |  |



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| **In this Document**   |  |  | | --- | --- | |  | [Goal](https://support.oracle.com/epmos/faces/DocumentDisplay?_afrLoop=524041229466755&amp;id=1638177.1&amp;_adf.ctrl-state=ua5l1vxjq_72#GOAL) | |  | [Solution](https://support.oracle.com/epmos/faces/DocumentDisplay?_afrLoop=524041229466755&amp;id=1638177.1&amp;_adf.ctrl-state=ua5l1vxjq_72#FIX) | |  |  |  | | --- | --- | |  | [References](https://support.oracle.com/epmos/faces/DocumentDisplay?_afrLoop=524041229466755&amp;id=1638177.1&amp;_adf.ctrl-state=ua5l1vxjq_72#REF) |     **Applies to:**  Oracle Database - Enterprise Edition - Version 11.2.0.1 to 11.2.0.4 [Release 11.2]  Information in this document applies to any platform.  \*\*\*Checked for relevance on 16-Jan-2013\*\*\*  **Goal**  <p >\*Goal  <span >Enter the goal of the document. What does the customer want to accomplish?  Consider a 11.2 Grid Infrastructure with RAC cluster having OCR ,Vote File and ASM spfile on a Diskgroup. Under certain circumstances you may wish to move to a different diskgroup.  One example would be that you have created these components in the +DATA diskgroup and you wish to move the OCR, Vote File and ASM spfile to a NORMAL or HIGH redundant diskgroup.    **Solution**  Basic steps to move to  the new diskgroup :  1) Create New diskgroup(CRS) with suitable redundancy for OCR and Voting files.  2) Ensure that the new diskgroup is mounted on all cluster nodes.  3) Move OCR and Vote file from <Current diskgroup> to <CRS>.   4) Change ASM SPFILE location from <current diskgroup> to <CRS> Diskgroup.   5) Mount new <CRS> diskgroup in all nodes and restart CRS in all Nodes to Startup CRS using New SPFILE from <CRS> Diskgroup.   6) Verify mount of disks and diskgroups.   7) Create new diskgroup resource for <CRS> Diskgroup.   8) Ensure ALL Cluster Resources are started successfully .  Below assumptions are made:   * OCR,Voting Disks and ASM SPFILE is originally stored in a Diskgroup +DATA. * $ORACLE\_HOME points to GRID HOME. * Cluster is up and running in all nodes of RAC.   NOTE:  In the examples the disks name/paths are specific to  ASMLIB configuration on Linux platform.  Your configuration disks path could be different, depending on the platform/OS you use.  EXAMPLES: Detailed steps with commands to rename the diskgroup :  **1) Create New CRS diskgroup  Login as SYSASM using SQLPLUS into ASM instance on one node and run below command:   Sample Command:   SQL> create diskgroup CRS normal redundancy disk 'ORCL:DISK4' ,'ORCL:DISK5' ,'ORCL:DISK6'  attribute 'compatible.rdbms'='11.2.0.0', 'compatible.asm'='11.2.0.0';    Diskgroup created.**  Make sure the diskgroup is mounted on all the nodes.  NOTE:  If the diskgroup you are moving the OCR to is not online on all nodes, then the ocr.loc file on those nodes where the Diskgroup is not online will not be updated.  This will prevent CRS from restarting on those nodes that the diskgroup is not online.  And the ocr.loc file may need manual intervention.    **2)Ensure that the new diskgroup is mounted on all cluster nodes:   SQL> alter diskgroup CRS mount;   SQL> select name, state, type from v$asm\_diskgroup;**    **3) Move OCR and Vote file from <Current diskgroup> to <CRS>   $ORACLE\_HOME/bin/bin/ocrconfig -add +CRS  $ORACLE\_HOME/bin/bin/ocrconfig -delete +DATA  $ORACLE\_HOME/bin/crsctl replace votedisk +CRS    Sample Command Output:  [root@test ~]# $ORACLE\_HOME/bin/ocrconfig -add +CRS [root@test ~]# $ORACLE\_HOME/bin/ocrconfig -delete +DATA   [grid@test ~]# $ORACLE\_HOME/bin/crsctl replace votedisk +CRS  Successful addition of voting disk 9d351cfdbef64facbfe2d1519880ef33. Successful addition of voting disk 302c23b19e864f92bfa68eda9045e5cc. Successful addition of voting disk 6eeca4920acb4f8fbf6ec5a4e2b8ea7b. Successful deletion of voting disk 32f7d65cf17d4fa3bf2932998251635f. Successful deletion of voting disk 10c31fb0891d4f5abfb38ef34cd49f4d. Successful deletion of voting disk 7d6f7d6480554f01bfc2621a3adb8f5f. Successfully replaced voting disk group with +CRS. CRS-4266: Voting file(s) successfully replaced   [root@test ~]# $ORACLE\_HOME/bin/crsctl query css votedisk  ## STATE File Universal Id File Name Disk group -- ----- ----------------- --------- --------- 1. ONLINE 9d351cfdbef64facbfe2d1519880ef33 (ORCL:DISK4) [CRS] 2. ONLINE 302c23b19e864f92bfa68eda9045e5cc (ORCL:DISK5) [CRS] 3. ONLINE 6eeca4920acb4f8fbf6ec5a4e2b8ea7b (ORCL:DISK6) [CRS] Located 3 voting disk(s).   [root@test ~]# $ORACLE\_HOME/bin/ocrcheck  Status of Oracle Cluster Registry is as follows : Version : 3 Total space (kbytes) : 262120 Used space (kbytes) : 2804 Available space (kbytes) : 259316 ID : 1778064925 Device/File Name : +CRS Device/File integrity check succeeded Device/File not configured Device/File not configured Device/File not configured Device/File not configured Cluster registry integrity check succeeded Logical corruption check succeeded**    **4) Change ASM SPFILE location from <Current diskgroup> to <CRS> Diskgroup.  Login as SYSASM using SQLPLUS into ASM instance on one node and run below commands:  SQL> create pfile='/tmp/init/init' from spfile; SQL> create spfile='+CRS' from pfile='/tmp/init/init';  Now GPNPTOOL will get updated with new ASM SPFILE location.  That can be verified by below command :  $ORACLE\_HOME/bin/gpnptool get**    **5)Mount diskgroup in all RAC nodes:  SQL> alter diskgroup CRS mount;  Restart CRS in all nodes to startup CRS using new SPFILE from <CRS> diskgroup :  $> crsctl stop crs $> crsctl start crs**    6) **Verify the mount of the diskgroup and its disks:  SQL> set line 1000 SQL> set pages 599 SQL> col path format a30  SQL> select name,path,group\_number,header\_status,total\_mb,free\_mb from v$asm\_disk;  NAME PATH GROUP\_NUMBER HEADER\_STATU TOTAL\_MB FREE\_MB ------------------------------ ------------------------------ ------------ ------------ ---------- ---------- DATA1 ORCL:DATA1 2 MEMBER 15109 9982 DATA2 ORCL:DATA2 2 MEMBER 15109 9982 DATA3 ORCL:DATA3 1 MEMBER 15109 9982 DATA4 ORCL:DATA4 3 MEMBER 15109 9982 DISK4 ORCL:DISK4 3 MEMBER 860 576 DISK5 ORCL:DISK5 3 MEMBER 668 376 DISK6 ORCL:DISK6 3 MEMBER 668 372   SQL> select name,state,usable\_file\_mb,total\_mb,free\_mb,required\_mirror\_free\_mb from v$asm\_diskgroup;  NAME STATE USABLE\_FILE\_MB TOTAL\_MB FREE\_MB REQUIRED\_MIRROR\_FREE\_MB ------------------------------ ----------- -------------- ---------- ---------- ----------------------- DATA MOUNTED 9982 15109 9982 0 CRS MOUNTED 552 2448 1400 296**    **7) Add the diskgroup resources to CRS:   srvctl add diskgroup -g CRS  Sample Command Output: [root@test ~]# $ORACLE\_HOME/bin/srvctl add diskgroup -g CRS**    **8) Ensure ALL Cluster resources are started successfully using below sample commands :   $ORACLE\_HOME/bin/crsctl stat res -init -t  $ORACLE\_HOME/bin/crsctl check cluster -all  $ORACLE\_HOME/bin/crsctl stat res -t** |