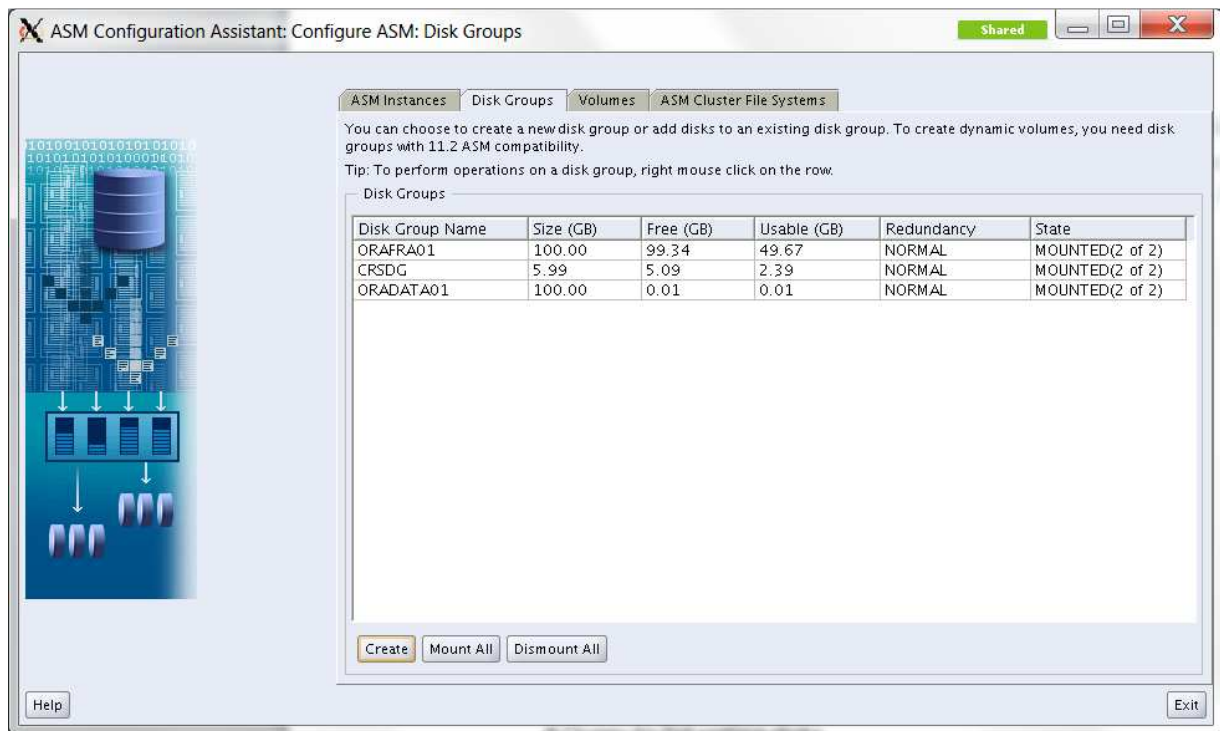


Oracle 11g R2 ACFS Creation

Login as grid
Asmcn

We are assuming that disks/luns are available on the nodes as candidates to be used for creating the disk group.



Click Create

Oracle 11g R2 ACFS Creation

Create Disk Group [Shared] [X]

Disk Group Name:

Redundancy
 Redundancy is achieved by storing multiple copies of the data on different failure groups. Normal redundancy needs disks from at least two different failure groups, and high redundancy from at least three different failure groups.
☐ High ☒ Normal ☐ External (None)

Select Member Disks
☒ Show Eligible ☐ Show All
 Quorum failure groups are used to store voting files in extended clusters and do not contain any user data. They require ASM compatibility of 11.2 or higher.

<input type="checkbox"/>	Disk Path	Header Status	Disk Name	Size (MB)	Failure Group	Quorum
<input checked="" type="checkbox"/>	ORCL:SDAVGAFS	PROVISIONED		51199	ACFS1FG1	<input type="checkbox"/>
<input type="checkbox"/>	ORCL:SDAVGDB2	PROVISIONED		51199		<input type="checkbox"/>
<input checked="" type="checkbox"/>	ORCL:SDBVGAFS	PROVISIONED		51199	ACFS1FG2	<input type="checkbox"/>
<input type="checkbox"/>	ORCL:SDBVGDB2	PROVISIONED		51199		<input type="checkbox"/>
<input checked="" type="checkbox"/>	ORCL:SDCVGAFS	PROVISIONED		51199	ACFS1FG3	<input type="checkbox"/>
<input type="checkbox"/>	ORCL:SDCVGDB1	PROVISIONED		51199		<input type="checkbox"/>
<input type="checkbox"/>	ORCL:SDCVGDB2	PROVISIONED		51199		<input type="checkbox"/>
<input type="checkbox"/>	ORCL:SDCVGFRA1	PROVISIONED		51199		<input type="checkbox"/>
<input checked="" type="checkbox"/>	ORCL:SDDVGAFS	PROVISIONED		51199	ACFS1FG4	<input type="checkbox"/>
<input type="checkbox"/>	ORCL:SDDVGDB1	PROVISIONED		51199		<input type="checkbox"/>

Note: If you do not see the disks which you believe are available, check the Disk Discovery Path and read/write permissions on the disks. The Disk Discovery Path limits set of disks considered for discovery.

Disk Discovery Path: <default> Change Disk Discovery Path

Disk Group Attributes
 An allocation unit (AU) is the fundamental unit in which contiguous disk space is allocated to ASM files. ASM file extent size is a multiple of AUs. The AU size cannot be modified later.
 Allocation Unit Size (MB):
 Specify minimum software versions for ASM, Database and ASM volumes that this disk group need to be compatible with.
 ASM Compatibility:
 Database Compatibility:
 ADVM Compatibility:
 Refer Oracle Automatic Storage Management Administrator's Guide for more details on the Compatibility matrix.

Hide Advanced Options OK Cancel Help

Pick the LUNS that makes up this diskgroup and specify the names for the failure groups. I used 4 distinct failure group names since the 4 luns were carved from 4 physical drives.

Click ok



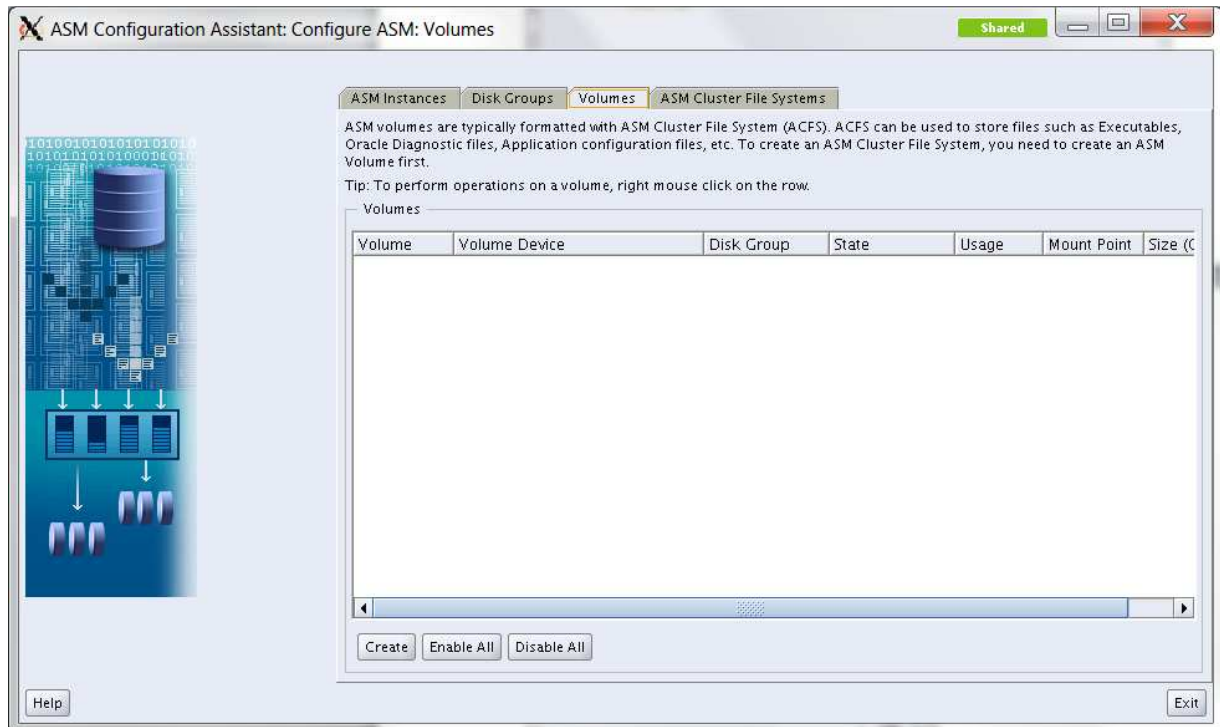
Khwaja Imran Mohammed
 Senior Oracle DBA

Wells Fargo - PSG Infrastructure Engineering & Architecture

Oracle 11g R2 ACFS Creation

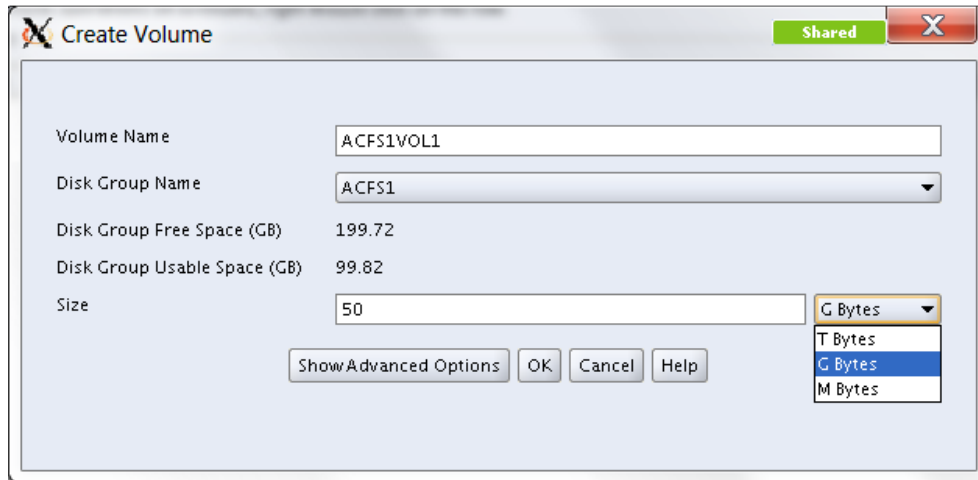


Click on TAB "volumes" to create a volume to be used for ACFS.



Click create

Oracle 11g R2 ACFS Creation

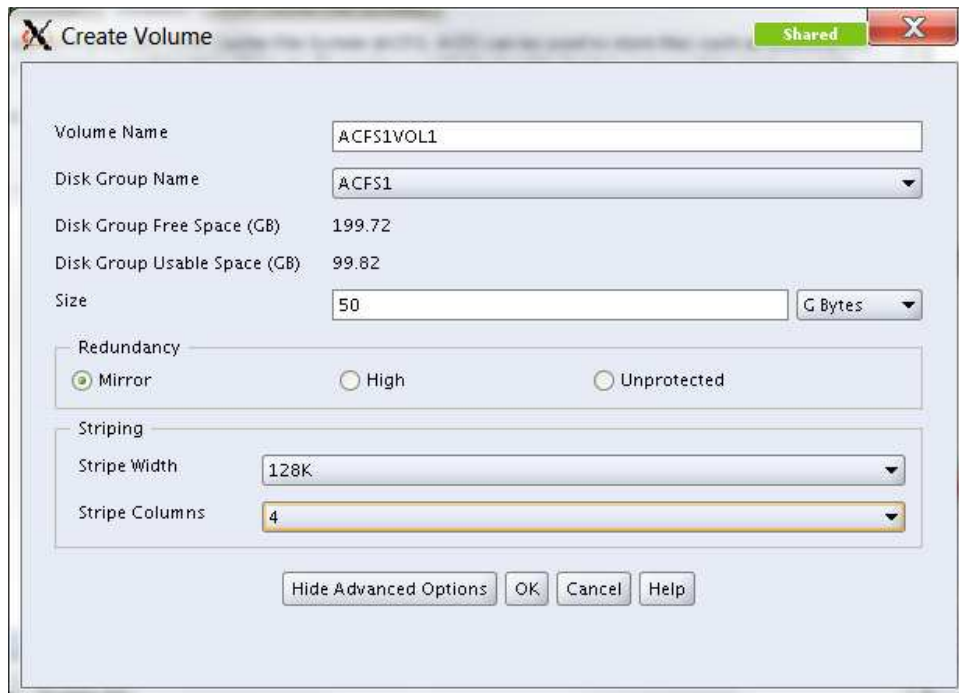


The 'Create Volume' dialog box is shown with the following fields and values:

- Volume Name: ACFS1VOL1
- Disk Group Name: ACFS1
- Disk Group Free Space (GB): 199.72
- Disk Group Usable Space (GB): 99.82
- Size: 50
- Unit: G Bytes

Buttons: Show Advanced Options, OK, Cancel, Help

Click advanced options.



The 'Create Volume' dialog box is shown with the following fields and values:

- Volume Name: ACFS1VOL1
- Disk Group Name: ACFS1
- Disk Group Free Space (GB): 199.72
- Disk Group Usable Space (GB): 99.82
- Size: 50
- Unit: G Bytes

Advanced Options:

- Redundancy: ☒ Mirror, ☐ High, ☐ Unprotected
- Striping: ☐ None, ☒ Stripe Width, ☐ Stripe Columns
- Stripe Width: 128K
- Stripe Columns: 4

Buttons: Hide Advanced Options, OK, Cancel, Help

Left the values at default.

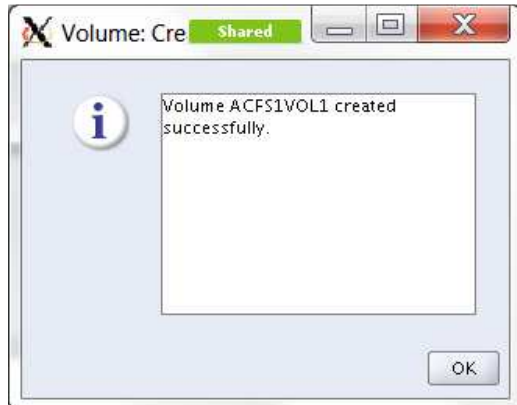


The 'Volume: Creation' progress window is shown with the following text:

Creating Volume ACFS1VOL1 ...

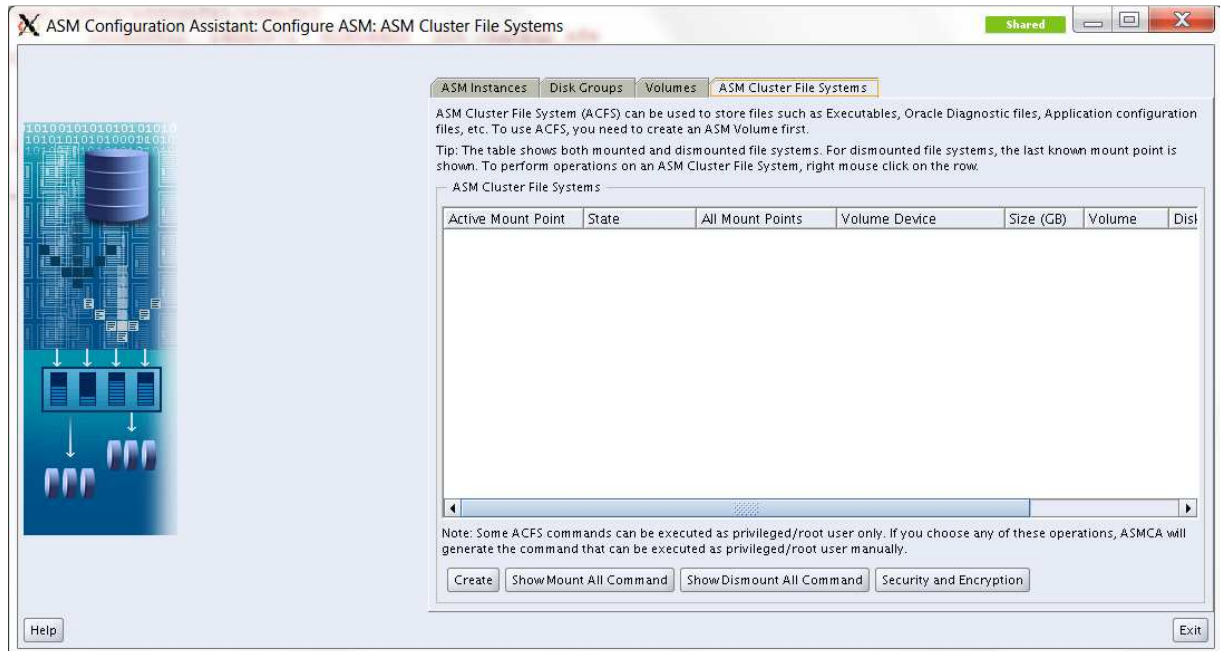
Khwaja Imran Mohammed
Senior Oracle DBA
Wells Fargo - PSG Infrastructure Engineering & Architecture

Oracle 11g R2 ACFS Creation



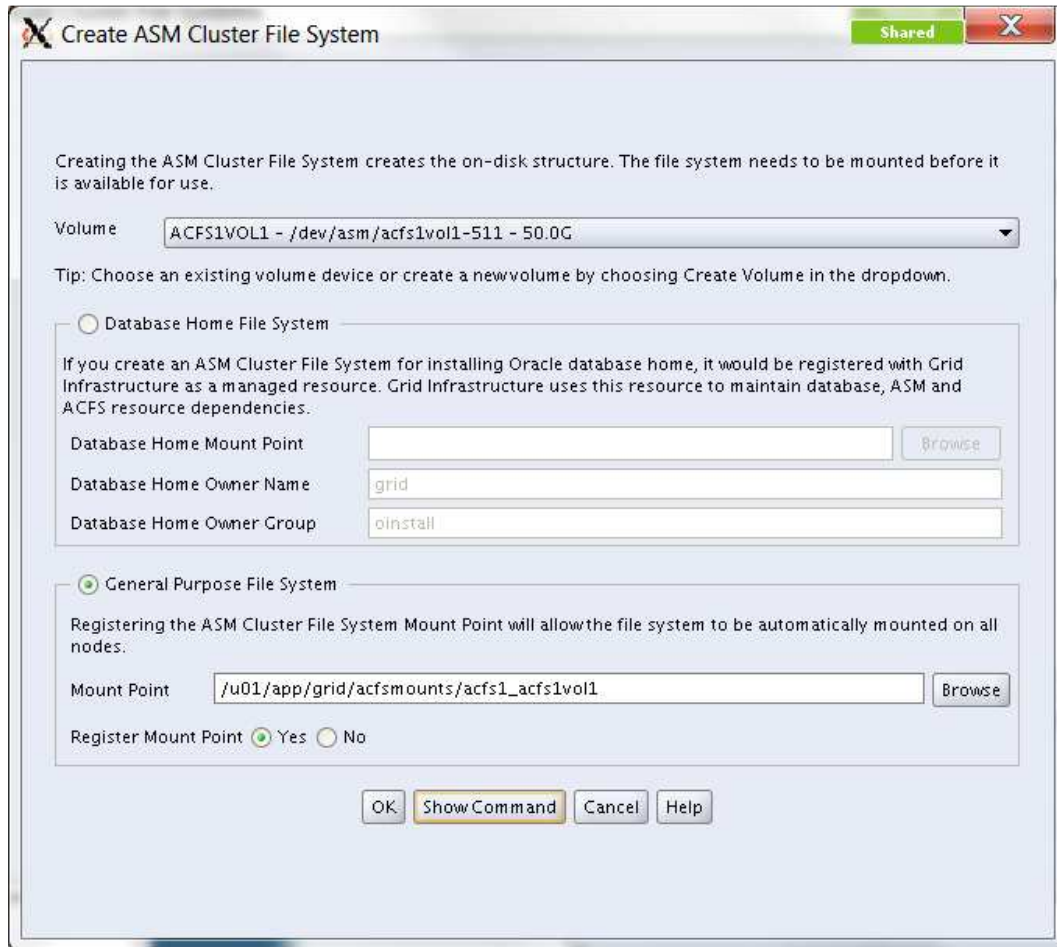
Click on tab asm cluster filesystem to create the FS

Oracle 11g R2 ACFS Creation



Click create

Oracle 11g R2 ACFS Creation



Create ASM Cluster File System

Creating the ASM Cluster File System creates the on-disk structure. The file system needs to be mounted before it is available for use.

Volume: **ACFS1VOL1 - /dev/asm/acfs1vol1-511 - 50.0G**

Tip: Choose an existing volume device or create a new volume by choosing Create Volume in the dropdown.

☐ Database Home File System

If you create an ASM Cluster File System for installing Oracle database home, it would be registered with Grid Infrastructure as a managed resource. Grid Infrastructure uses this resource to maintain database, ASM and ACFS resource dependencies.

Database Home Mount Point: **Browse**

Database Home Owner Name: **grid**

Database Home Owner Group: **oinstall**

☒ General Purpose File System

Registering the ASM Cluster File System Mount Point will allow the file system to be automatically mounted on all nodes.

Mount Point: **/u01/app/grid/acfsmounts/acfs1_acfs1vol1** **Browse**

Register Mount Point: ☒ Yes ☐ No

OK Show Command Cancel Help



Show Command

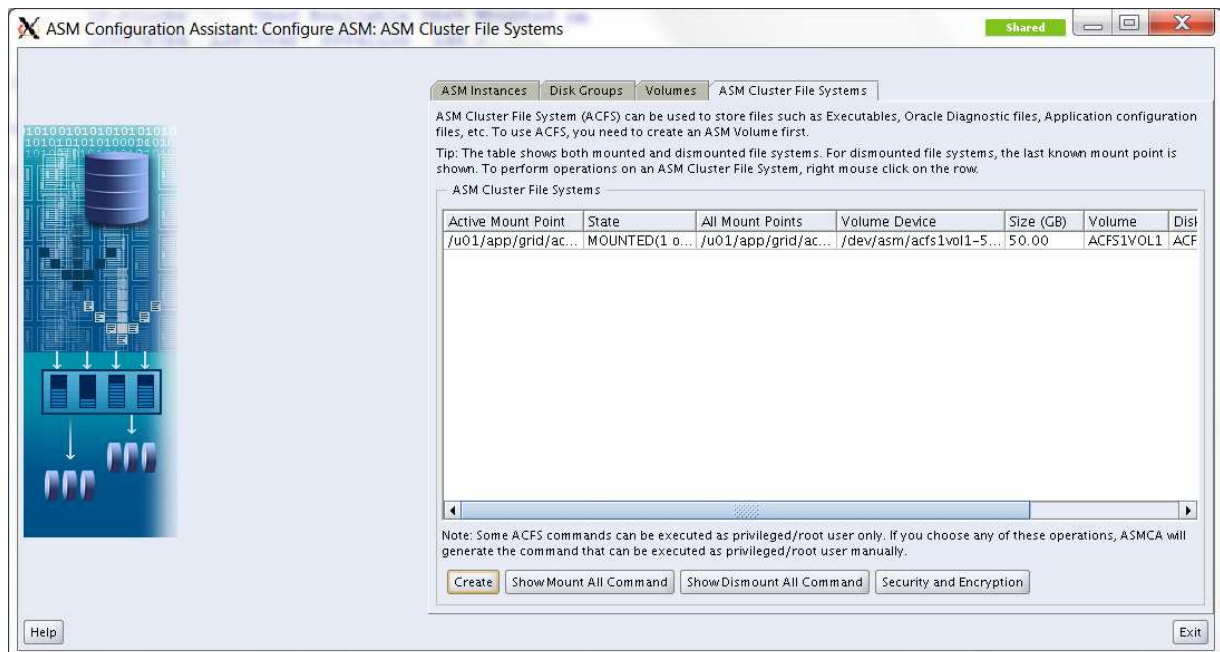
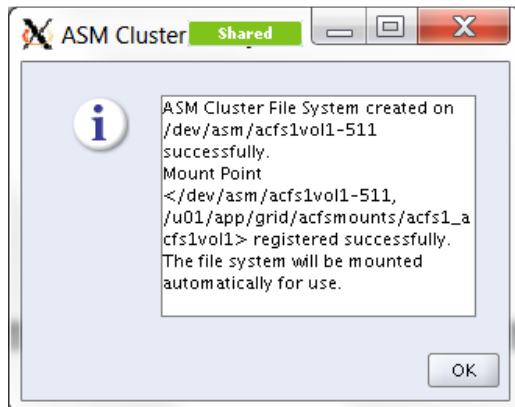
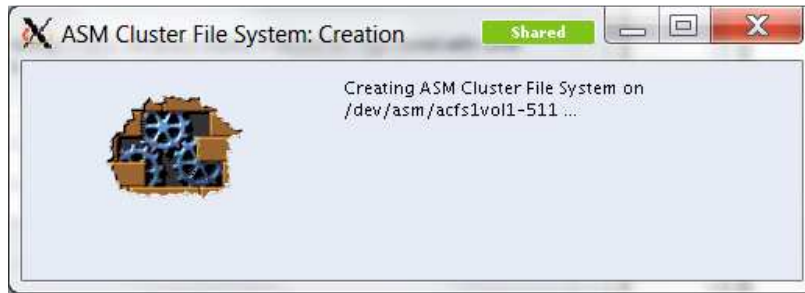
```
/sbin/mkfs -t acfs
/dev/asm/acfs1vol1-511

Register Mount Point Command:

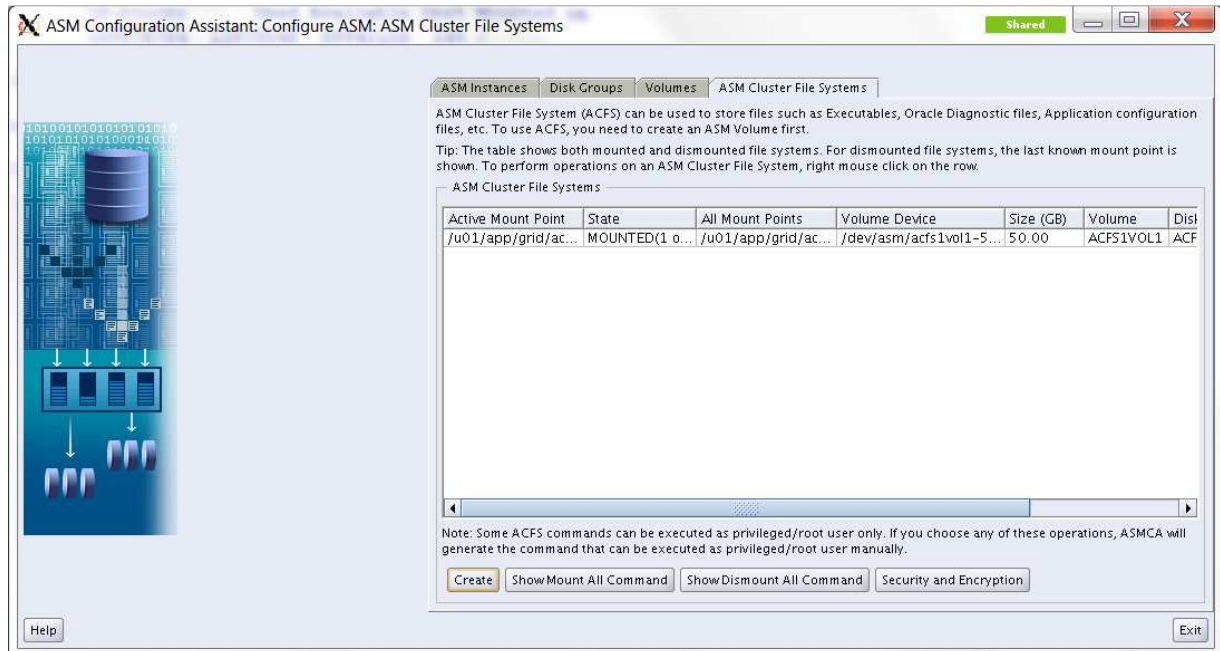
/sbin/acfsutil registry -a -f
/dev/asm/acfs1vol1-511
/u01/app/grid/acfsmounts/acfs1_acfs1vol1
```

OK

Oracle 11g R2 ACFS Creation



Oracle 11g R2 ACFS Creation



Verify the CFS is mounted on all cluster nodes.

```
[root@tslinrac01 acfs1_acfs1vol1]# df -k
Filesystem      1K-blocks  Used Available Use% Mounted on
/dev/hda1       109578784 27072944 76849760 27% /
tmpfs           2077324    1303716 773608 63% /dev/shm
tsstore01-stg:/mnt/sddvg/sddvgnfs1/sddnfs1
102630912 14563072 82854400 15% /backup_nfs
/dev/asm/acfs1vol1-511
52428800 169572 52259228 1% /u01/app/grid/acfsmounts/acfs1_acfs1vol1
```