ORACLE ASMLIB INSTALLATION : INSTALLATION AND CONFIGURATION GUIDE

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INTRODUCTION

The Automatic Storage Management library driver (ASMLIB) simplifies the configuration and management of the disk devices by eliminating the need to rebind raw devices used with ASM each time the system is restarted. This document describes the steps required to install the Linux specific ASM library and its associated driver. A disk that is configured for use with Automatic Storage Management is known as a candidate disk.

An ASMLib is a storage –management interface between Oracle kernel and disk storage. You can load multiple ASMLibs. These drive will provide more efficient I/O interface as well as increased performance and reliability.

ASMLIB INSTALLATION STEPS

1. Download and install the ASMLib package on each node.
2. Configure ASMLib on each node.
3. Make disks available to ASMLib on one node.

DOWNLOAD THE ASMLIB PACKAGE

VERIFY THE KERNEL VERSION AND ARCHITECTURE

Enter the following command to determine the kernel version and architecture of the system:

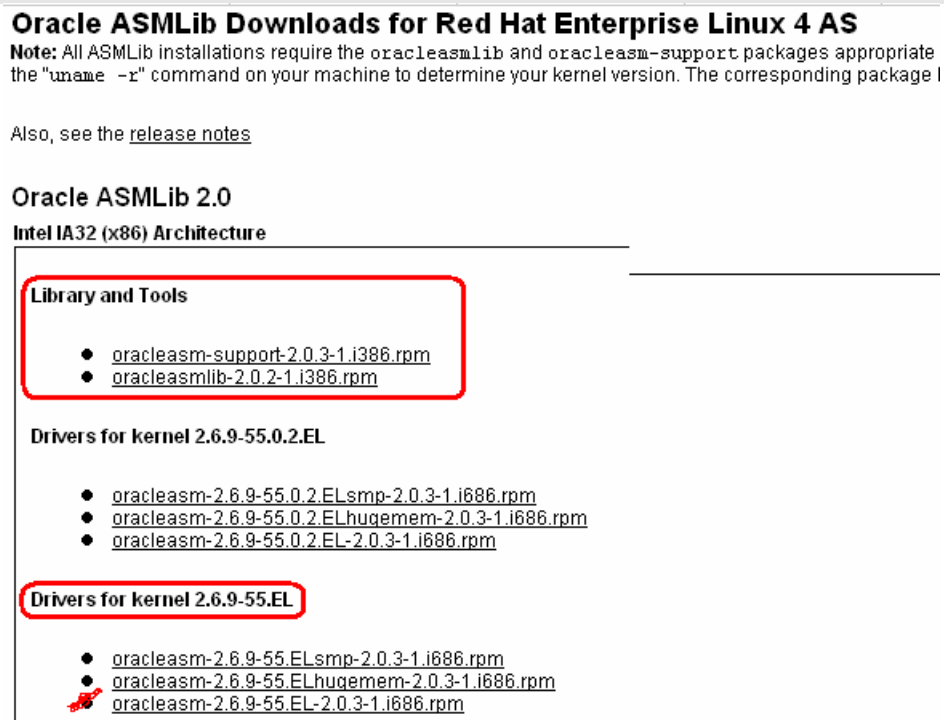
 # uname -rm

DOWNLOAD THE DRIVER

If necessary, download the required ASMLIB packages from the OTN Web site:

http://www.oracle.com/technology/software/tech/linux/asmlib/rhel4.html

You must install oracleasm-support package version 2.0.1 or later to use ASMLib on Red Hat Enterprise Linux 4.0 Server



Oracle ASMLib Downloads for Red Hat Enterprise Linux 4 AS

Note: All ASMLib installations require the `oracleasmlib` and `oracleasm-support` packages appropriate the "`uname -r`" command on your machine to determine your kernel version. The corresponding package l

Also, see the release notes

Oracle ASMLib 2.0

Intel IA32 (x86) Architecture

Library and Tools

- oracleasm-support-2.0.3-1.i386.rpm
- oracleasmlib-2.0.2-1.i386.rpm

Drivers for kernel 2.6.9-55.0.2.EL

- oracleasm-2.6.9-55.0.2.ELsmp-2.0.3-1.i686.rpm
- oracleasm-2.6.9-55.0.2.ELhugemem-2.0.3-1.i686.rpm
- oracleasm-2.6.9-55.0.2.EL-2.0.3-1.i686.rpm

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- oracleasm-2.6.9-55.EL-2.0.3-1.i686.rpm

INSTALL THE ASMLIB PACKAGE

```
[root@db02pn]# uname -a
Linux db02pn.profnet.com 2.6.9-55.ELsmp #1 SMP Fri Apr 20 17:03:35 EDT 2007 i686 i686 i386 GNU/Linux

[root@db02pn]# ls -ltr
total 226756
-rw-r--r--  1 oracle oinstall   22662 Jul 23 14:42 oracleasm-support-2.0.3-1.i386.rpm
-rw-r--r--  1 oracle oinstall   12948 Jul 23 14:42 oracleasmlib-2.0.2-1.i386.rpm
-rw-r--r--  1 oracle oinstall  129361 Jul 23 15:10 oracleasm-2.6.9-55.ELsmp-2.0.3-1.i686.rpm

[root@db02pn]# rpm -Uvh oracleasm-support-2.0.3-1.i386.rpm
Preparing...                ########################################### [100%]
   1:oracleasm-support      ########################################### [100%]
[root@db02pn]# rpm -Uvh oracleasm-2.6.9-55.ELsmp-2.0.3-1.i686.rpm
Preparing...                ########################################### [100%]
   1:oracleasm-2.6.9-55.EL  ########################################### [100%]
[root@db02pn]# rpm -Uvh oracleasmlib-2.0.2-1.i386.rpm
Preparing...                ########################################### [100%]
   1:oracleasmlib           ########################################### [100%]
```

CONFIGURE THE ASMLIB

The ASM driver needs to be loaded, and the driver filesystem needs to be mounted. This is taken care of by the initialization script, /etc/init.d/oracleasm.The /etc/init.d/oracleasm script completes the following tasks:

1. Creates the /etc/sysconfig/oracleasm configuration file
2. Creates the /dev/oracleasm mount point
3. Loads the oracleasm kernel module
4. Mounts the ASMLIB driver file system

```
# /etc/init.d/oracleasm configure
This will configure the on-boot properties of the Oracle ASM library
driver.  The following questions will determine whether the driver is
loaded on boot and what permissions it will have.  The current values
will be shown in brackets ('[]').  Hitting <ENTER> without typing an
answer will keep that current value.  Ctrl-C will abort.

Default user to own the driver interface []: oracle
Default group to own the driver interface []: dba
Start Oracle ASM library driver on boot (y/n) [n]: y
Fix permissions of Oracle ASM disks on boot (y/n) [y]: y
Writing Oracle ASM library driver configuration:        [  OK  ]
Loading module "oracleasm":                             [  OK  ]
Mounting ASMlib driver filesystem:                      [  OK  ]
Scanning system for ASM disks:                          [  OK  ]
```

MAKING DISK AVAILABLE TO NODES

```
# /etc/init.d/oracleasm listdisks
# /etc/init.d/oracleasm createdisk VOL1 /dev/sde3  ----> Used for Database Datafiles
Marking disk "/dev/sde3" as an ASM disk:                [  OK  ]

#  /etc/init.d/oracleasm listdisks
VOL1
# /etc/init.d/oracleasm querydisk VOL1
Disk "VOL1" is a valid ASM disk on device [8, 67]
```