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I.INSTALLATION

The following steps are for building and installing a DKMS driver into an RPM based machine.

1. Since DKMS involves changing system level kernel files, it would require superuser permissions.

```
$sudo su
```

2. DKMS requires the following dependency package to be installed, for compiling and installing the AACRAID drivers.

```
# yum install gcc kernel kernel-devel kernel-headers
```

3. Once the dependency packages have been installed, extract the rpm DKMS tgz file (52011 is the release version of the driver).

```
# tar -xvzf aacraid-rpm-dkms-1.2.1-52011.tgz
```

4. Once the RPM DKMS package is extracted, you will find the following two packages.

- dkms-2.2.0.3-1.noarch.rpm
 - DKMS RPM executable installation package which is installs DKMS on the system.
- aacraid-1.2.1.52011-dkms.noarch.rpm
 - This file contains the driver source code.

5. After extracting the RPM DKMS package, begin installing the extracted packages, with DKMS executable being first.

```
# rpm -Uvh dkms-2.2.0.3-1.noarch.rpm
```

If a dependency error occurs then DKMS can be installed from EPEL repository, please take a look at II section A.

Next install the driver source package, which installs the code into /usr/src/aacraid-1.2.1.52011

```
# rpm -Uvh aacraid-1.2.1.52011-dkms.noarch.rpm
```

6. Once both the DKMS package and AACRAID DKMS source packages are installed the driver can be added to the DKMS build tree.

```
# dkms add -m aacraid -v 1.2.1.52011
```

7. The driver can be installed with the following command.

```
# dkms install -k `uname -r` -m aacraid -v 1.2.1.52011
```

8. After the DKMS install is done, the system needs to be rebooted for the new driver to take effect.

II. DKMS ADDITIONAL REFERENCE

A. Installing DKMS

DKMS executable package is available, in the EPEL repository. The following steps worked at the time of writing.

1. Get the EPEL repo file, the X denotes the major version.

```
$ wget https://dl.fedoraproject.org/pub/epel/epel-release-latest-X.noarch.rpm
```

2. Install the EPEL repo.

```
$ sudo rpm -Uvh epel-release-latest-X.noarch.rpm
```

3. Install DKMS.

```
$ sudo yum install dkms
```

B. DKMS REFERENCE

This section contains information on the other functions of DKMS

- i. Build and install a driver:

```
# dkms add -m aacraid -v 1.2.1.52011
# dkms build -m aacraid -v 1.2.1.52011
# dkms install -m aacraid -v 1.2.1.52011
```

- ii. Build a driver for a different system other than native:

```
# dkms build -k 2.4.21-4.ELsmp -m aacraid -v 1.2.1.52011
# dkms install -k 2.4.21-4.ELsmp -m aacraid -v 1.2.1.52011
```

- iii. Make a driver disk from a set of built drivers:

```
# dkms mkdriverdisk -k 2.4.21-4.ELBOOT,2.4.21-4.ELsmp,2.4.21-4.EL \
-d redhat -m aacraid -v 1.2.1.52011
# dkms mkdriverdisk -k 2.6.11.4-20a-default,2.6.11.4-20a-smp \
-d suse -m aacraid -v 1.2.1.52011
```

- iv. Check current status of dkms:

dkms status

Note: Additional support documentation:

- `man dkms`
- download <http://linux.dell.com/dkms/dkms-ols2004.pdf> for theory and practice

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