

NAME

mfi - LSI MegaRAID SAS driver

SYNOPSIS

To compile this driver into the kernel, place the following lines in your kernel configuration file:

```
device pci  
device mfi
```

Alternatively, to load the driver as a module at boot time, place the following line in loader.conf(5):

```
mfi_load="YES"
```

DESCRIPTION

This driver is for LSI's next generation PCI Express SAS RAID controllers. Access to RAID arrays (logical disks) from this driver is provided via `/dev/mfid?` device nodes. A simple management interface is also provided on a per-controller basis via the `/dev/mfi?` device node.

The **mfi** name is derived from the phrase "MegaRAID Firmware Interface", which is substantially different than the old "MegaRAID" interface and thus requires a new driver. Older SCSI and SATA MegaRAID cards are supported by `amr(4)` and will not work with this driver.

Two sysctls are provided to tune the **mfi** driver's behavior when a request is made to remove a mounted volume. By default the driver will disallow any requests to remove a mounted volume. If the sysctl `dev.mfi.%d.delete_busy_volumes` is set to 1, then the driver will allow mounted volumes to be removed.

A tunable is provided to adjust the **mfi** driver's behaviour when attaching to a card. By default the driver will attach to all known cards with high probe priority. If the tunable `hw.mfi.mrsas_enable` is set to 1, then the driver will reduce its probe priority to allow `mrsas(4)` to attach to the card instead of **mfi**.

mfi does not provide ATA TRIM support. Refer to `mrsas(4)` if TRIM support is required.

HARDWARE

The **mfi** driver supports the following hardware:

- ⊕ LSI MegaRAID SAS 1078
- ⊕ LSI MegaRAID SAS 8408E
- ⊕ LSI MegaRAID SAS 8480E
- ⊕ LSI MegaRAID SAS 9240
- ⊕ LSI MegaRAID SAS 9260

- ⊕ Dell PERC5
- ⊕ Dell PERC6
- ⊕ IBM ServeRAID M1015 SAS/SATA
- ⊕ IBM ServeRAID M1115 SAS/SATA
- ⊕ IBM ServeRAID M5015 SAS/SATA
- ⊕ IBM ServeRAID M5110 SAS/SATA
- ⊕ IBM ServeRAID-MR10i
- ⊕ Intel RAID Controller SRCAS18E
- ⊕ Intel RAID Controller SROMBSAS18E

FILES

/dev/mfid? array/logical disk interface

/dev/mfi? management interface

DIAGNOSTICS

mfi%d: Unable to delete busy device An attempt was made to remove a mounted volume.

SEE ALSO

amr(4), pci(4), mfiutil(8)

HISTORY

The **mfi** driver first appeared in FreeBSD 6.1.

AUTHORS

The **mfi** driver and this manual page were written by Scott Long <scottl@FreeBSD.org>.

BUGS

The driver does not support big-endian architectures at this time.