## 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 SRCSAS18E
- Intel RAID Controller SROMBSAS18E

## FILES

*/dev/mfid?*  array/logical disk interface
*/dev/mfi?*   management interface

## DIAGNOSTICS

**mfid%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.