

NAME

mpt - LSI Fusion-MPT SCSI/Fibre Channel driver

SYNOPSIS

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

```
device scbus
device mpt
```

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

```
mpt_load="YES"
```

DESCRIPTION

The **mpt** driver provides support for the LSI Logic Fusion-MPT family of SCSI, Fibre Channel and SAS controllers.

HARDWARE

The following controllers are supported by the **mpt** driver:

- ⊕ LSI Logic 53c1030, LSI Logic LSI2x320-X (Single and Dual Ultra320 SCSI)
- ⊕ LSI Logic AS1064, LSI Logic AS1068 (SAS/SATA)
- ⊕ LSI Logic FC909 (1Gb/s Fibre Channel)
- ⊕ LSI Logic FC909A (Dual 1Gb/s Fibre Channel)
- ⊕ LSI Logic FC919, LSI Logic 7102XP-LC (Single 2Gb/s Fibre Channel)
- ⊕ LSI Logic FC929, LSI Logic FC929X, LSI Logic 7202XP-LC (Dual 2Gb/s Fibre Channel)
- ⊕ LSI Logic FC949X (Dual 4Gb/s Fibre Channel)
- ⊕ LSI Logic FC949E, LSI Logic FC949ES (Dual 4Gb/s Fibre Channel PCI-Express)

The Ultra 320 SCSI controller chips supported by the **mpt** driver can be found onboard on many systems including:

- ⊕ Dell PowerEdge 1750 through 2850
- ⊕ IBM eServer xSeries 335

These systems also contain Integrated RAID Mirroring and Integrated RAID Mirroring Enhanced which this driver also supports.

The SAS controller chips are also present on many new AMD/Opteron based systems, like the Sun 4100. Note that this controller can drive both SAS and SATA drives or a mix of them at the same time.

The Integrated RAID Mirroring available for these controllers is poorly supported at best.

The Fibre Channel controller chipsets are supported by a broad variety of speeds and systems. The Apple Fibre Channel HBA is in fact the FC949ES card.

This driver also supports target mode for Fibre Channel cards. This support may be enabled by setting the desired role of the core via the LSI Logic firmware utility that establishes what roles the card can take on - no separate compilation is required.

WARNINGS

Most controllers supported by the **mpt** driver suffer from limitations on supported disk size (mostly <2TB). While most controllers will truncate usable disk size, others might behave unexpectedly and can cause severe data loss. Refer to the datasheet of the chipset and firmware version for information about supported disk size and limitations.

SEE ALSO

cd(4), ch(4), da(4), mps(4), pci(4), sa(4), scsi(4), targ(4), gmultipath(8), mptutil(8)

LSI Logic Website, <http://www.lsi.com/>.

HISTORY

The **mpt** driver first appeared in FreeBSD 4.6.

AUTHORS

The **mpt** driver was originally written for FreeBSD by Greg Ansley and marginally improved upon by Matt Jacob <mjacob@FreeBSD.org>.

Justin Gibbs <gibbs@FreeBSD.org> and Scott Long <scottl@FreeBSD.org> have made more substantial improvements.