NAME

ccr - Chelsio T6 crypto accelerator driver

SYNOPSIS

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

```
device ccr
device cxgbe
```

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

```
ccr_load="YES"
```

DESCRIPTION

The **ccr** driver provides support for the crypto accelerator engine included on PCI Express Ethernet adapters based on the Chelsio Terminator 6 ASIC (T6). The driver accelerates AES-CBC, AES-CCM, AES-CTR, AES-GCM, AES-XTS, SHA1, SHA2-224, SHA2-256, SHA2-384, SHA2-512, SHA1-HMAC, SHA2-224-HMAC, SHA2-256-HMAC, SHA2-384-HMAC, and SHA2-512-HMAC operations for crypto(4) and ipsec(4). The driver also supports chaining one of AES-CBC, AES-CTR, or AES-XTS with SHA1-HMAC, SHA2-224-HMAC, SHA2-256-HMAC, SHA2-384-HMAC, or SHA2-512-HMAC for encrypt-then-authenticate operations. For further hardware information and questions related to hardware requirements, see *http://www.chelsio.com/*.

The **ccr** driver attaches as a child of an existing Chelsio NIC device and thus requires that the cxgbe(4) driver be active.

HARDWARE

The **ccr** driver supports the crypto accelerator engine included on adapters based on the T6 ASIC:

- Chelsio T6225-CR
- Chelsio T6225-SO-CR
- Chelsio T62100-LP-CR
- Chelsio T62100-SO-CR
- Chelsio T62100-CR

SUPPORT

For general information and support, go to the Chelsio support website at: *http://www.chelsio.com/*.

If an issue is identified with this driver with a supported adapter, email all the specific information related to the issue to <*support@chelsio.com*>.

SEE ALSO

crypto(4), cxgbe(4), ipsec(4)

HISTORY

The **ccr** device driver first appeared in FreeBSD 12.0.

AUTHORS

The **ccr** driver was written by John Baldwin <*jhb@FreeBSD.org*>.