NAME

dnet – Ethernet driver for D-Link DE-530CT, SMC EtherPower 8432BT, Znyx312, Cogent EM960, Cogent EM100

SYNOPSIS

/dev/dnet

AVAILABILITY

x86

DESCRIPTION

The **dnet** Ethernet driver is a multi-threaded, loadable, clonable, STREAMS GLD driver. Multiple controllers installed within the system are supported by the driver. The **dnet** driver functions include controller initialization, frame transmit and receive, functional addresses, promiscuous and multicast support, and error recovery and reporting.

APPLICATION PROGRAMMING INTERFACE

The cloning character-special device, **/dev/dnet**, is used to access all DEC 21040/21140 devices installed in the system.

The **dnet** driver uses the Solaris GLD module which handles all the STREAMS and DLPI specific functions of the driver. It is a *style 2* DLPI driver and therefore supports only the connectionless mode of data transfer. Thus, a DLPI user should issue a **DL_ATTACH_REQ** primitive to select the device to be used. Valid DLPI primitives are defined in **<sys/dlpi.h>**. Refer to **dlpi**(7P) for more information.

The device is initialized on the first attach and de-initialized (stopped) on the last detach.

The values returned by the driver in the **DL_INFO_ACK** primitive in response to a **DL_INFO_REQ** from the user are as follows:

- The maximum SDU is **1500** (**ETHERMTU** - defined in **<sys/ethernet.h>**).
- The minimum SDU is **0**.
- The **DLSAP** address length is **8**.
- The MAC type is **DL_ETHER**.
- The **sap** length value is **–2**, meaning the physical address component is followed immediately by a 2-byte **sap** component within the **DLSAP** address.
- The service mode is **DL_CLDLS**.
- No optional quality of service (QOS) support is included at present, so the QOS fields are **0**.
- The provider style is **DL_STYLE2**.
- The version is **DL_VERSION_2**.
- The broadcast address value is the Ethernet/IEEE broadcast address (**FF:FF:FF:FF:FF:FF**).

Once in the **DL_ATTACHED** state, the user must send a **DL_BIND_REQ** to associate a particular Service Access Point (SAP) with the stream.

CONFIGURATION

The **/plaform/i86pc/kernel/drv/dnet.conf** file supports the following options:

bncaui For BNC/AUI connectivity use **bncaui=1**, for RJ-45 use **bncaui=0**. RJ-45 is the default.

fulldup For full duplex operation use **fulldup=1**, for half duplex use **fulldup=0**. Half-duplex operation gives better results on older 10mbit networks. **mode** For 10mbit operation use **mode=10**, for 100mbit operation use **mode=100**. Certain 21140 based cards will operate at either speed. Use the mode property to override the 100mbit default in this case.

FILES

/dev/dnet	character special device
/plaform/i86pc/kernel/drv/dnet.conf	configuration file

SEE ALSO

dlpi(7P), **streamio**(7I)

Writing Device Drivers
STREAMS Programming Guide
Network Interfaces Programmer's Guide