NAME

pcn – AMD PCnet Ethernet controller device driver

SYNOPSIS

/dev/pcn

AVAILABILITY

x86

DESCRIPTION

The **pcn** Ethernet driver is a multi-threaded, loadable, clonable driver for the AMD PCnet family of Ethernet controllers that use the Generic LAN Driver (**GLD**) facility to implement the required STREAMS and Data Link Provider (see **dlpi**(7P)) interfaces.

This driver supports a number of integrated motherboards and add-in adapters based on the AMD PCnet-ISA, PCnet-PCI, and PCnet-32 controller chips. The **pcn** 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/pcn**, is used to access all PCnet devices installed in the system.

pcn and DLPI

The **pcn** 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 therefor 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.

FILES

/dev/pcn	character special device
/kernel/drv/pcn.conf	configuration file

SEE ALSO

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

Writing Device Drivers

STREAMS Programming Guide

Standards Conformance Guide