NAME

rue - RealTek RTL8150 USB to Fast Ethernet controller driver

SYNOPSIS

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

> **device uhci**
> **device ohci**
> **device usb**
> **device miibus**
> **device uether**
> **device rue**

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

> if_rue_load="YES"

DESCRIPTION

The **rue** driver provides support for USB Ethernet adapters based on the RealTek RTL8150 USB to Fast Ethernet controller chip.

The RTL8150 contains an integrated Fast Ethernet MAC, which supports both 10 and 100Mbps speeds in either full or half duplex. Although designed to interface with 100Mbps peripheral, the existing USB standard specifies a maximum transfer speed of 12Mbps. Users should therefore not expect to actually achieve 100Mbps speeds with this device.

The **rue** driver supports the following media types:

autoselect   Enable auto selection of the media type and options. The user can manually override the auto selected mode by adding media options to the */etc/rc.conf* file.

10baseT/UTP   Set 10Mbps operation. The **mediaopt** option can also be used to select either **full-duplex** or **half-duplex** modes.

100baseTX   Set 100Mbps (Fast Ethernet) operation. The **mediaopt** option can also be used to select either **full-duplex** or **half-duplex** modes.

The **rue** driver supports the following media options:

full-duplex   Force full duplex operation.

half-duplex   Force half duplex operation.

For more information on configuring this device, see ifconfig(8).

HARDWARE
The **rue** driver supports RealTek RTL8150 based USB Ethernet adapters including:

- Buffalo (Melco Inc.) LUA-KTX
- Green House GH-USB100B
- LinkSys USB100M
- Billionton 10/100 FastEthernet USBKR2

DIAGNOSTICS
rue%d: watchdog timeout A packet was queued for transmission and a transmit command was issued, however the device failed to acknowledge the transmission before a timeout expired.

rue%d: rx list init failed The driver failed to allocate an mbuf for the transmitter ring.

rue%d: no memory for rx list The driver failed to allocate an mbuf for the receiver ring.

SEE ALSO
arp(4), miibus(4), netintro(4), ng_ether(4), ifconfig(8)

RealTek RTL8150 data sheet, http://pdf.seekdatasheet.com/2008714/200807142333305235.pdf.

HISTORY
The **rue** device driver first appeared in FreeBSD 5.1.

AUTHORS
The **rue** driver was written by Shunsuke Akiyama *<akiyama@FreeBSD.org>*.