NAME

otus - Atheros AR9170 USB IEEE 802.11a/b/g/n wireless network device

SYNOPSIS

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

```
device ehci
device uhci
device ohci
device usb
device otus
device wlan
```

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

```
if_otus_load="YES"
```

DESCRIPTION

The **otus** driver supports USB 2.0 wireless network devices based on the Atheros AR9170 chipset.

The Atheros AR9170 is a draft-802.11n adapter that uses an external radio to operate in either 2.4GHz only or 2.4GHz and 5GHz.

The AR9101 radio supports 1T1R operation in 2GHz only.

The AR9102 radio supports 2T2R operation in 2GHz only.

The AR9104 radio supports 2T2R operation both 2GHz and 5GHz.

These are the modes the **otus** driver can operate in:

BSS mode — Also known as *infrastructure* mode, this is used when associating with an access point, through which all traffic passes. This mode is the default.

The **otus** driver can be configured to use Wired Equivalent Privacy (WEP) or Wi-Fi Protected Access (WPA-PSK and WPA2-PSK). WPA is the de facto encryption standard for wireless networks. It is strongly recommended that WEP not be used as the sole mechanism to secure wireless communication, due to serious weaknesses in it.

The **otus** driver can be configured at runtime with ifconfig(8).

FILES

The driver needs at least version 1.0 of the following firmware files, which is loaded when an interface is attached:

/boot/kernel/otusfw-init.ko
/boot/kernel/otusfw-main.ko

HARDWARE

The **otus** driver provices support for Atheros AR9170 USB IEEE 802.11b/g/n wireless network adapters, including:

3Com 3CRUSBN275
Arcadyan WN7512
CACE AirPcap Nx
D-Link DWA-130 rev D1
D-Link DWA-160 rev A1
D-Link DWA-160 rev A2
IO-Data WN-GDN/US2
NEC Aterm WL300NU-G
Netgear WNDA3100
Netgear WN111 v2
Planex GW-US300
SMC Networks SMCWUSB-N2
TP-Link TL-WN821N v1, v2
Ubiquiti SR71 USB
Unex DNUA-81
Z-Com UB81
Z-Com UB82
ZyXEL NWD-271N

EXAMPLES

Join an existing BSS network (i.e., connect to an access point):

```
ifconfig wlan create wlandev otus0 inet 192.168.0.20 \
    netmask 0xffffff00
```

Join a specific BSS network with network name "my_net":

```
ifconfig wlan create wlandev otus0 ssid my_net up
```

Join a specific BSS network with 64-bit WEP encryption:

```
ifconfig wlan create wlandev otus0 ssid my_net \
    wepmode on wepkey 0x1234567890 weptxkey 1 up
```

DIAGNOSTICS

%s: failed load firmware of file otusfw-main For some reason, the driver was unable to read the microcode file from the filesystem. The file might be missing or corrupted.

SEE ALSO

intro(1), netintro(4), otusfw(4), usb(4), wlan(4), arp(8), hostapd(8), ifconfig(8), wpa_supplicant(8)

HISTORY

The **otus** driver first appeared in OpenBSD 4.6.

AUTHORS

The **otus** driver was written by Damien Bergamini <*damien@openbsd.org*> and ported by Adrian Chadd <*adrian@freebsd.org*>.

CAVEATS

The **otus** driver only supports 802.11a/b/g operations. 802.11n operation is not supported at this time.