NAME

iwm - Intel IEEE 802.11ac wireless network driver

SYNOPSIS

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

```
device iwm
device pci
device wlan
device firmware
```

You also need to select a firmware for your device. Choose one from:

```
device iwm3160fw
device iwm3168fw
device iwm7260fw
device iwm7265fw
device iwm7265Dfw
device iwm8000Cfw
device iwm8265fw
device iwm9000fw
device iwm9260fw
```

Or you can use

```
device iwmfw
```

to include them all.

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

```
if_iwm_load="YES"
iwm3160fw_load="YES"
iwm3168fw_load="YES"
iwm7260fw_load="YES"
iwm7265fw_load="YES"
iwm7265Dfw_load="YES"
iwm8000Cfw_load="YES"
iwm8265fw_load="YES"
iwm9000fw_load="YES"
```

```
iwm9260fw_load="YES"
```

DESCRIPTION

The **iwm** driver supports running most Intel Wireless AC series network devices in **station** mode operation. Only one virtual interface may be configured at any time. This driver requires the firmware built with the iwmfw(4) module to work.

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

HARDWARE

The **iwm** driver supports the following PCIe Wi-Fi devices:

- Intel Dual Band Wireless AC 3160
- Intel Dual Band Wireless AC 3165
- Intel Dual Band Wireless AC 3168
- Intel Dual Band Wireless AC 7260
- Intel Dual Band Wireless AC 7265
- Intel Dual Band Wireless AC 8260
- Intel Dual Band Wireless AC 8265
- Intel Dual Band Wireless AC 9260
- Intel Dual Band Wireless AC 9270
- Intel Dual Band Wireless AC 946X
- Intel Dual Band Wireless AC 9560

EXAMPLES

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

```
ifconfig wlan create wlandev iwm0 inet 192.0.2.20/24
```

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

```
ifconfig wlan create wlandev iwm0 ssid my_net up
```

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

```
ifconfig wlan create wlandev iwm0 ssid my_net \
  wepmode on wepkey 0x1234567890 weptxkey 1 up
```

Join a specific BSS network with 128-bit WEP encryption:

```
ifconfig wlan create wlandev iwm0 wlanmode adhoc ssid my_net \
  wepmode on wepkey 0x01020304050607080910111213 weptxkey 1
```

DIAGNOSTICS

iwm%d: device timeout The driver will reset the hardware. This should not happen.

iwm%d: firmware error The onboard microcontroller crashed for some reason. The driver will reset the hardware. This should not happen.

iwm%d: timeout waiting for firmware initialization to complete The onboard microcontroller failed to initialize in time. This should not happen.

iwm%d: could not load firmware image '%s' The driver failed to load the firmware image using the firmware(9) subsystem. Verify the iwmfw(4) firmware module is present.

iwm%d: could not load boot firmware An attempt to upload the boot firmware image to the onboard microcontroller failed. This should not happen.

iwm%d: could not load microcode An attempt to upload the microcode image to the onboard microcontroller failed. This should not happen.

iwm%d: could not load main firmware An attempt to upload the main firmware image to the onboard microcontroller failed. This should not happen.

SEE ALSO

iwlwifi(4), iwmfw(4), pci(4), wlan(4), wlan_ccmp(4), wlan_tkip(4), wlan_wep(4), networking(7), ifconfig(8), wpa_supplicant(8)

BUGS

Currently, **iwm** only supports 802.11a/b/g modes. It will not associate to access points that are configured to operate only in 802.11n/ac modes.