

**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 iwmmfw(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

iwlfwifi(4), iwmmfw(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.