

NAME

upgt - Conexant/Intersil PrismGT SoftMAC USB IEEE 802.11b/g 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 upgt
device wlan
```

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

```
if_upgt_load="YES"
```

DESCRIPTION

The **upgt** driver supports the USB 2.0 Conexant/Intersil PrismGT series wireless adapters based on the GW3887 chipset.

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

- | | |
|--------------|---|
| BSS mode | Also known as <i>infrastructure</i> mode, this is used when associating with an access point, through which all traffic passes. This mode is the default. |
| monitor mode | In this mode the driver is able to receive packets without associating with an access point. This disables the internal receive filter and enables the card to capture packets from networks which it wouldn't normally have access to, or to scan for access points. |

upgt supports software WEP. Wired Equivalent Privacy (WEP) is the de facto encryption standard for wireless networks. It can be typically configured in one of three modes: no encryption; 40-bit encryption; or 104-bit encryption. Unfortunately, due to serious weaknesses in WEP protocol it is strongly recommended that it not be used as the sole mechanism to secure wireless communication. WEP is not enabled by default.

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

FILES

This driver requires the **upgtfw** firmware to be installed before it will work. The firmware files are not

publicly available. A package of the firmware which can be installed via `pkg_add(1)` is available:

<http://weongyo.org/project/upgt/upgt-firmware-2.13.1.0.tar.gz>

HARDWARE

The **upgt** driver supports USB 2.0 Conexant/Intersil PrismGT series wireless adapters based on the GW3887 chipset, among them:

- ⌘ Belkin F5D7050 (version 1000)
- ⌘ Cohiba Proto Board
- ⌘ D-Link DWL-G120 Cohiba
- ⌘ FSC Connect2Air E-5400 USB D1700
- ⌘ Gigaset USB Adapter 54
- ⌘ Inventel UR045G
- ⌘ Netgear WG111v1 (rev2)
- ⌘ SMC EZ ConnectG SMC2862W-G
- ⌘ Sagem XG703A
- ⌘ Spinnaker DUT
- ⌘ Spinnaker Proto Board

EXAMPLES

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

```
ifconfig wlan create wlandev upgt0 inet 192.168.0.20 \
    netmask 0xffffffff
```

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

```
ifconfig wlan create wlandev upgt0 ssid my_net up
```

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

```
ifconfig wlan create wlandev upgt0 ssid my_net \
    wepmode on wepkey 0x1234567890 weptxkey 1 up
```

SEE ALSO

`arp(4)`, `netintro(4)`, `usb(4)`, `wlan(4)`, `ifconfig(8)`

HISTORY

The **upgt** driver first appeared in OpenBSD 4.3.

AUTHORS

The **upgt** driver was written by Marcus Glocker <mglocker@openbsd.org>.

The hardware specification was reverse engineered by the people at <http://www.prism54.org>.

CAVEATS

The **upgt** driver just supports the USB 2.0 devices (GW3887 chipset) but not the USB 1.0 devices containing the NET2280, ISL3880, and ISL3886 chipsets. Some further efforts would be necessary to add USB 1.0 support to the driver.