

Install GW-US54GXS/GW-US54GZL/GW-US54Pro to Fedora 4.0

1. Unzip ZD1211LnxDrv_2_15_0_0.tar.gz

Please key in “`tar xf ZD1211LnxDrv_2_15_0_0.tar.gz`” under text mode or terminal.
Or double click “ZD1211LnxDrv_2_15_0_0.tar.gz” under Xwindow, and unzip the file.

2. Compile Makefile

Since “ZD1211LnxDrv_2_15_0_0.tar” supports Linux 2.4.x and 2.6.x version, we must compile Makefile before installation.

Open “ZD1211LnxDrv_2_15_0_0” folder. Double click “Makefile” and open it. If you use Fedora 2.6.11-1.1369 version, please modify as below red part.

```
#if the kernel is 2.6.x, turn on this
KERN_26=y
KERNEL_SOURCE=/usr/src/kernels/2.6.11-1.1369_FC4-i686
#if the kernel is 2.4.x, turn on this
#KERN_24=y
#KERNEL_SOURCE=/usr/src/linux-2.4.20-8
```

If you use Linux 2.4.x version, please modify as below red part.

```
#if the kernel is 2.6.x, turn on this
#KERN_26=y
#KERNEL_SOURCE=/usr/src/kernels/2.6.11-1.1369_FC4-i686
#if the kernel is 2.4.x, turn on this
KERN_24=y
KERNEL_SOURCE=/usr/src/linux-2.4.20-8
```

Note:

1. Must indicate your KERNEL_SOURCE path.
2. You can check Linux version through “`uname -r`” command.

3. Install Driver

If your GW-US54GZL/GW-US54Pro shows PLANEX logo on the device, please enter

below letters to install driver.

```
make clean
make ZD1211REV_B=0
make ZD1211REV_B=0 install
```

If your GW-US54GZL/GW-US54Pro shows PCi logo on the device, please enter below letters to install driver.

```
make clean
make ZD1211REV_B=1
make ZD1211REV_B=1 install
```

4. Complete the Installation

Plug your GW-US54GZL/GW-US54Pro into USB connector. Then you can check through “lsmod | grep zd1211” command if your driver was installed already.

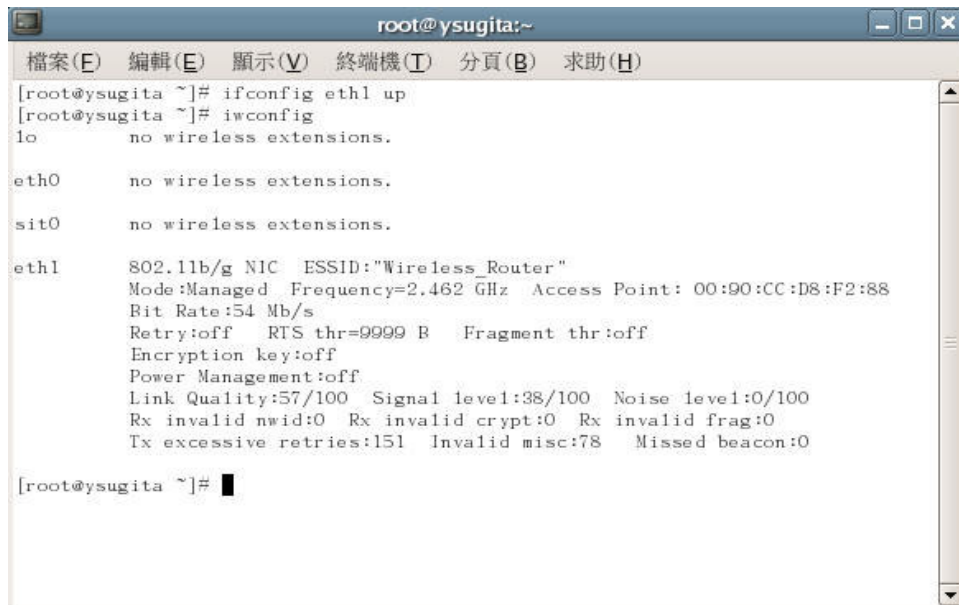


```
root@ysugita:~
檔案(E) 編輯(E) 顯示(V) 終端機(T) 分頁(B) 求助(H)
[root@ysugita ~]# lsmod | grep zd1211
zd1211b 320644 0
[root@ysugita ~]#
```

5. WEP Connection Settings

Please enable your wireless LAN first , and enter “**ifconfig eth(x) up**” under text mode. “x” means your wireless LAN. You can check your wireless LAN through “ifconfig -a” command.

For below sample, wireless LAN number is 1. When you enter “ifconfig eth1 up” to start your wireless LAN, you can check the status through “iwconfig” command.



```
root@ysugita:~  
[root@ysugita ~]# ifconfig eth1 up  
[root@ysugita ~]# iwconfig  
lo          no wireless extensions.  
  
eth0        no wireless extensions.  
  
sit0        no wireless extensions.  
  
eth1        802.11b/g NIC  ESSID:"Wireless_Router"  
            Mode:Managed Frequency=2.462 GHz  Access Point: 00:90:CC:D8:F2:88  
            Bit Rate:54 Mb/s  
            Retry:off  RTS thr=9999 B  Fragment thr:off  
            Encryption key:off  
            Power Management:off  
            Link Quality:57/100  Signal level:38/100  Noise level:0/100  
            Rx invalid nwid:0  Rx invalid crypt:0  Rx invalid frag:0  
            Tx excessive retries:151  Invalid misc:78  Missed beacon:0  
  
[root@ysugita ~]#
```

Then, we use a router, PCi BLW-54SG, which is with WEP 64bit encryption to test. Please refer to below setting screen.

Station Name: PL000670	Security System WEP
Region: Asia	WEP
Network Name (SSID): linux-test	Authentication: Auto
<input checked="" type="checkbox"/> Enable Access Point	Key Size: 64 bit
<input checked="" type="checkbox"/> Broadcast SSID	Passphrase:
<input checked="" type="checkbox"/> XR	Key 1: <input checked="" type="radio"/> 1234567890
<input type="checkbox"/> Enable JumpStart	Key 2: <input type="radio"/> <input type="text"/>
802.11 Mode: 802.11g & 802.11b	Key 3: <input type="radio"/> <input type="text"/>
Channel No: 7	Key 4: <input type="radio"/> <input type="text"/>
Current Setting: WEP	

Enter below letters under text mode or terminal to connect with AP(Access Point).

```
iwconfig eth1 essid linux-test  
iwconfig eth1 key 1234-5878-90 [1]
```

And double check the connection condition through “iwconfig eth1” command.

Note:

1. You can search APs through “iwlist eth(x) scanning” command.

```
root@localhost:~  
檔案(E) 編輯(E) 顯示(V) 終端機(T) 分頁(B) 求助(H)  
[root@localhost ~]# iwconfig eth1  
eth1      802.11b/g NIC  ESSID:"linux-test"  
Mode:Managed Frequency=2.442 GHz  Access Point: 00:C0:02:00:06:70  
Bit Rate:54 Mb/s  
Retry:off RTS thr=9999 B  Fragment thr:off  
Encryption key:****-****-** Security mode:open  
Power Management:off  
Link Quality:53/100  Signal level:60/100  Noise level:0/100  
Rx invalid nwid:0  Rx invalid crypt:0  Rx invalid frag:0  
Tx excessive retries:53 Invalid misc:11 Missed beacon:0  
  
[root@localhost ~]#
```

Please use “ifconfig eth1” command to confirm if you got IP address from the AP.

```
root@localhost:~  
檔案(E) 編輯(E) 顯示(V) 終端機(T) 分頁(B) 求助(H)  
[root@localhost ~]# ifconfig eth1  
eth1      Link encap:Ethernet  HWaddr 00:00:55:66:66:66  
          inet addr:192.168.1.3  Bcast:192.168.1.255  Mask:255.255.255.0  
          inet6 addr: fe80::200:55ff:fe66:6666/64 Scope:Link  
          UP BROADCAST RUNNING MULTICAST  MTU:1500 Metric:1  
          RX packets:47 errors:0 dropped:0 overruns:0 frame:0  
          TX packets:81 errors:0 dropped:0 overruns:0 carrier:0  
          collisions:0 txqueuelen:1000  
          RX bytes:9876 (9.6 KiB)  TX bytes:7371 (7.1 KiB)  
  
[root@localhost ~]#
```

Open browser to access internet.



6. WPA-PSK Connection Settings

First of all, we need to unzip wpa program. Please enter “**tar xf wpa_supplicant-0.47_zydas.tar.gz**” under text mode, or double click “wpa_supplicant-0.47_zydas.tar.gz” under Xwindow.

Second, enter “wpa_supplicant-0.47_zydas” folder, and open Makefile to compile. Please add below setting letter in the “mkconfig” of Makefile.

```
echo CONFIG_IEEE8021X_EAPOL=y >> .config
echo CONFIG_EAP_MD5=y >> .config
echo CONFIG_MSCHAPV2=y >> .config
echo CONFIG_EAP_PEAP=y >> .config
echo CONFIG_EAP_TLS=y >> .config
echo CONFIG_DRIVER_ZYDAS=y >> .config
```

Then, enter “**make mkconfig**” under text mode or terminal. You will see a mistake message for the .config file was already exist. Please ignore this message and go on next step.

Enter “make” command to unzip file. You will find “wpa_supplicant_psk.conf” file in “wpa_supplicant-0.47_zydas” folder. Open “wpa_supplicant_psk.conf” file to compile.

Modify below part of “wpa_supplicant_psk.conf” file.

```
ssid="your AP SSID"  
psk="your presharekey"
```

In the end, please enter below letters under text mode or terminal.

```
ifconfig eth(x) up
```

```
./wpa_supplicant -ieth(x) -c wpa_supplicant_psk.conf -d -D zydas
```

Note:

This window have to work in background.

7. Access Point Setting

To set your GW-US54GXS/GZL/PRO to become AP mode. Please enter “**iwconfig eth(x) mode master**” under text mode or terminal.

Enter “**iwconfig eth(x) essid**” under text mode or terminal to set your SSID.

To set your 802.11X mode: 1:Mixed 2:Only G 3:Only B 4: Only A. Please enter “**iwpriv eth(x) set_mac_mode 1~4**” under text mode or terminal.

Enter “**iwconfig eth(x) channel channel(x)**” under text mode or terminal to set your using channel.

To set your WEP encryption: 0:Open System 1:Shared Key. Please enter “**iwpriv eth(x) set_auth 0~1**” under text mode or terminal.

Enter below letters under text mode or terminal to set your key.

```
iwconfig eth(x) key XXXX-XXXX-XX [key1~4]
```

```
iwconfig eth(x) key [1~4] open
```