

[Old Version using WEP](#)

# Setup of the UNIBZ Wireless LAN for Linux WPA

Security used within the WLAN Network:	WPA1/WPA2 + PEAP + MSCHAPv2
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## Pre-requisites

- Drivers for your Wireless Adapter and Requirements, installed and configured.
  1. Intel PRO/Wireless 2100 802.11b (Centrino) <http://ipw2100.sourceforge.net/>
  2. Intel PRO/Wireless 2200 802.11g and 2915 802.11ag (Centrino) <http://ipw2200.sourceforge.net/>
  3. Intersil PrismII driver with HostAP mode <http://hostap.epitest.fi/>
  4. Atheros MADWiFi driver (most cards with 802.11a or 108 Mb/s) <http://madwifi.org/>
  5. WLAN Cards using ndiswrapper  
[http://ndiswrapper.sourceforge.net/mediawiki/index.php/Main\\_Page](http://ndiswrapper.sourceforge.net/mediawiki/index.php/Main_Page)
- Linux Software for the Authentication: [wpa\\_supplicant](#). It is a WPA Supplicant with support for WPA and WPA2 (IEEE 802.11i/RSN)
- A good Networkmanager GUI and front-end of wpa\_supplicant is [NetworkManager](#). A list of [Supported Wireless Cards & Drivers](#) is also available. A wiki about NetworkManager can be found in section [Using NetworkManager](#)

Other Wireless LAN resources for Linux can be found here

[http://www.hpl.hp.com/personal/Jean\\_Tourrilhes/Linux/](http://www.hpl.hp.com/personal/Jean_Tourrilhes/Linux/)

## Installing wpa\_supplicant

1. apt-get install wpa\_supplicant
2. Configure /etc/wpa\_supplicant.conf

less /etc/wpa\_supplicant.conf

```
ctrl_interface=/var/run/wpa_supplicant
ctrl_interface_group=0
eapol_version=1
ap_scan=1
fast_reauth=1

network={
    disabled=0
    ssid="ScientificNetworkSouthTyrol"
    proto=WPA
    key_mgmt=WPA-EAP
    auth_alg=OPEN
```

```
eap=PEAP
identity="unibzlogin@unibz.it"
password="unibzpassword"
ca_cert="/etc/ssl/certs/Thawte_Premium_Server_CA.pem"
phase1="peaplabel=0 peapver=0"
phase2="auth=MSCHAPV2"
priority=10
}
```

3. Bring Interface (eth1/wlan, etc.) up

```
sudo ifconfig eth1 up
```

4. Start wpa\_supplicant

```
sudo wpa_supplicant -D wext -i eth1 -c /etc/wpa_supplicant.conf
```

5. Get an IP Address

```
sudo dhclient3 eth1
```

## Using NetworkManager

[NetworkManager Howto](#)

# Configuration for wired authentication 802.1x

Make sure you have installed wpa\_supplicant and wpa\_gui

```
sudo apt-get install wpa_supplicant wpa_gui
```

Edit the configuration file: /etc/wpa\_supplicant/wpa\_supplicant.conf

```
vi /etc/wpa_supplicant/wpa_supplicant.conf
```

```
ctrl_interface=/var/run/wpa_supplicant
ctrl_interface_group=0
eapol_version=1
ap_scan=0
fast_reauth=1

network={
    eap=PEAP
```

```
eapol_flags=0
phase1="peaplabel=0"
phase2="auth=MSCHAPV2"
priority=10
key_mgmt=IEEE8021X
auth_alg=OPEN
}
```

Now execute the following commands:

Starts wpa\_supplicant with wired driver (-D wired) and in daemon mode (-B)

- `sudo wpa_supplicant -D wired -c /etc/wpa_supplicant/wpa_supplicant.conf -i eth0 -B`

Start wpa\_gui to enter username and password

- `sudo wpa_gui`
- Login with username@unibz.it and password

Get an IP Address

- `sudo dhclient3 eth0`

— *kohofer* 2007/03/30 14:22

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