

Configuring a Wireless Access Point



Work in Progress

This Howto explains how you can use your computer as a Wireless Accesspoint.

This means if the computer has an Internet connection and a wireless interface, other computers can use it's internet connection via wlan.

This is a very limited setup, it can be expanded with DHCP, DNS and a firewall, but this subjects can be found in other Howtos here at SlackDocs.

Requirements

The package `hostapd` is available at slackbuilds.org. It provides a daemon who listens on the wireless interface and allows the clients to authenticate.

Configuring hostapd

The configuration of `hostapd` is done in the file `/etc/hostapd/hostapd.conf`, here an example

```
# the wireless interface
interface=wlan0
# the driver -- there are other settings possible, but very likely the
following works
driver=nl80211
logger_syslog=-1
logger_syslog_level=2
logger_stdout=-1
logger_stdout_level=2
dump_file=/tmp/hostapd.dump
ctrl_interface=/var/run/hostapd
ctrl_interface_group=0
# The SSID -- i.e. the name of the wireless network (which will be shown
when you scan for available networks)
ssid=yourwlannamehere
country_code=DE
# check the manpage for hostapd and your hardware for the mode
hw_mode=g
channel=7
beacon_int=100
dtim_period=2
max_num_sta=255
rts_threshold=2347
fragm_threshold=2346
```

```
macaddr_acl=0
auth_algs=3
ignore_broadcast_ssid=0
eapol_key_index_workaround=0
eap_server=0
own_ip_addr=127.0.0.1
wpa=1
# The WPA2 key
wpa_passphrase=your very secret passphrase here
# the next settings refer to the settings in the clients wpa_supplicant.conf
wpa_key_mgmt=WPA-PSK
wpa_pairwise=TKIP
rsn_pairwise=CCMP
```

Be sure to read the manpage for hostapd

Configuring the client

In this Howto I'll only describe a minimal setup with a static IP-configuration.

```
ip-address: 192.168.45.10
subnetmask: 255.255.255.0
gateway: 192.168.45.1
```

Since we have (in this minimal configuration) no DNS-server running in our network, you'll have to configure your client with the same DNS-server that your Accesspoint is using (look at `/etc/resolv.conf`).

IP_forwarding and routing

Enable IP forwarding

```
echo "1" > /proc/sys/net/ipv4/ip_forward
```

Internet Connection Sharing

```
iptables -t nat -A POSTROUTING -o eth0 -j MASQUERADE
```

In this case eth0 is the interface which is connected to the internet. If your computer has a connection via ppp you should use ppp0 instead of eth0.

Starting the Accesspoint

```
ifconfig wlan0 192.168.45.1 up  
/etc/rc.d/rc.hostapd start
```

The first line starts wlan0 with IP-adress 192.168.45.1, the second line starts the daemon.

Sources

* Originally written by [Markus Hutmacher](#)

[howtos](#), [wifi](#), [accesspoint](#), [routing](#), [iptables](#)

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