

This document is a procedure I used to connect and control an Atik camera wirelessly to my laptop using the AtikAir app and a Raspberry Pi3 in a peer to peer network connection.

No existing network is needed as the Raspberry Pi is configured as an Access Point with a DHCP server. This is what is needed for use in the field where you have no existing network.

A few notes:

Though this procedure sets up a RPi 3 as an access point, there is no forwarding to the internet.

Also, I make no guarantee that this will work for all configurations so simply use at your own discretion.

I make no claims of being anything of a Linux guru. The info I obtained from the internet and by trial and error have what I think is a working solution.

First off I recommend using a separate sd, 8gb or 16gb card and load a new linux distro on it to avoid corrupting any existing installation you may have.

I was unable to get AtikAir Pi image to work with these configuration changes, so used noobs 2.0 instead.

I downloaded the raspberry Pi NOOBS 2.0 version and copied the files to a 16gb sd card.

Boot the RPi 3 with the noobs 2.0 os

You will need an internet connection, preferably wired

Open the terminal app

Install the two required packages with *sudo apt-get install dnsmasq hostapd*

open up the dhcpd configuration file with *sudo nano /etc/dhcpd.conf* and add the following line to the bottom of the file: *denyinterfaces wlan0*

Note: This must be ABOVE any interface lines you may have added!

save the file with ctrl-o enter to write the file
ctrl-x to exit the nano text editor

Now we need to configure our static IP. To do this open up the interface configuration file with `sudo nano /etc/network/interfaces` and edit the wlan0 section so that it looks like this:

```
allow-hotplug wlan0
```

```
iface wlan0 inet static
```

```
    address 172.24.1.1
```

```
    netmask 255.255.255.0
```

```
    network 172.24.1.0
```

```
    broadcast 172.24.1.255
```

```
# wpa-conf /etc/wpa_supplicant/wpa_supplicant.conf
```

save the file with ctrl-o enter to write the file

ctrl-x to exit the nano text editor

Restart dhcpd with `sudo service dhcpd restart` and then reload the configuration for wlan0 with `sudo ifdown wlan0; sudo ifup wlan0`.

Configure hostapd

Now we need to configure hostapd. Create a new configuration file with `sudo nano /etc/hostapd/hostapd.conf` with the following contents:

```
interface=wlan0
```

```
# driver=
```

```
# you can change this to what ever you want for the name of the access point
```

```
ssid=AtikAir-RPiAP
```

```
hw_mode=g
```

```
channel=6
```

```
ieee80211n=1
```

```
wmm_enabled=1
```

```
ht_capab=[HT40][SHORT-GI-20][DSSS_CCK-40]
```

```
macaddr_acl=0
```

auth_algs=1

ignore_broadcast_ssid=0

wpa=2

wpa_key_mgmt=WPA-PSK

wpa_passphrase=raspberry

rsn_pairwise=CCMP

save the file with ctrl-o enter to write the file
ctrl-x to exit the nano text editor

Open up the default configuration file with *sudo nano /etc/default/hostapd* and find the line `#DAEMON_CONF=""` and replace it with `DAEMON_CONF="/etc/hostapd/hostapd.conf"`.

save the file with ctrl-o enter to write the file
ctrl-x to exit the nano text editor

Configure dnsmasq

Now move the original config file before creating a new one

```
sudo mv /etc/dnsmasq.conf /etc/dnsmasq.conf.orig
```

```
sudo nano /etc/dnsmasq.conf
```

add these lines:

interface=wlan0

listen-address=172.24.1.1

bind-interfaces

server=8.8.8.8

domain-needed

bogus-priv

dhcp-range=172.24.1.50,172.24.1.150,12h

save the file with ctrl-o enter to write the file
ctrl-x to exit the nano text editor

Now we just need to start our services:

sudo service hostapd start

sudo service dnsmasq start

Now we install the AtikAir services:

This step downloading and installing the Atik Air service for the raspberry pi.

1) Open a terminal on your Raspberry Pi.

2) Run the following command to download the software:

wget downloads.atik-cameras.com/AtikAir.tar.gz

3) Once done, run the following command to unzip the folder:

tar -zxvf AtikAir.tar.gz

4) Once done, run the following command to change into the correct directory:

cd AtikAir

5) Then run the following command to install the software. Enter your password if necessary.

Sudo ./Installer

6) Lastly. If you are using an AtikGP, you will need to open the file:

/boot/cmdline.txt

And add this text at the start:

usbcore.usbfs_memory_mb=20000

7) You will need to reboot your Raspberry Pi for changes to take effect.

reboot with sudo reboot. And disconnect your wired Ethernet cable

Now with Rpi 3 configured and booted up, from your wireless device running AtikAir you should be able to detect the RPi 3 ssid name and connect to it. It will ask for a password, which is raspberry in this case. It is normal for it to say connected but no internet as this config doesn't setup internet access.

From here the AtikAir app should detect the Pi and you should be able to load your Atik camera software. I was using an infinity.

You can change the password to connect to the RPi, I believe it needs to be at least 8 characters. I have this highlighted above in the *hostapd.conf* file under

*wpa_passphrase=***raspberry**

