

# **Raspberry Pi based Wireless Access Point**

# RTL8188

Supposition of necessity of 'Access Point Mode' or 'Master Mode' was incorrect. Any Wifi dongle should do.



The wireless network adapter pictured at left uses a RealTek RTL8188 microprocessor. In order to operate this with the Raspberry Pi, the proper linux specific drivers had to be installed.

## Next steps:

- While the wireless adapter did come with a driver on a CD, it was not sufficient to be used on the RPi. Therefore, a driver was downloaded from the manufacturer's website.
- The driver was unzipped and directories changed. The "tar ball" needed to be decompressed, per the driver's documentation.
- With the "tar ball" decompressed, the Makefile required editing, with the specifics of the RPi's processor having to be added.

```
ifeq ($(CONFIG_PLATFORM_ARM_1176JZFS),y)
EXTRA_CFLAG += -DCONFIG_LITTLE_ENDIAN
ARCH := arm
CROSS_COMPILE := arm-none-linux-gnueabi-
KSRC := /lib/modules/3.6.11+/modules.builtin
MODDESTDIR := /lib/modules/3.6.11+/kernel/drivers/net/wireless/
MODULE_NAME := wlan
endif
```

- A new directory was created at /lib/modules/3.6.11+/kernel/drivers/net/wireless/rtl8192cu to house the driver files, including the Makefile.

- After attempting to “make” the driver, it appeared that a new “clean” kernel source tree might be required. The file `linux-rpi-3.6.y.tar.gz` was obtained from <http://raspberrypi.stackexchange.com>
- The file was decompressed and the “clean” kernel source tree was linked into the existing kernel.
- The “make” of the driver was reattempted. With the “clean” kernel source tree, fewer errors were encountered; however, the “make” was still unsuccessful... leaving errors still to be dealt with.

Overall:

Progress is very slow and painstaking, with many **baffling** errors encounters at virtually every step.