

Porting of drivers/net/wireless/ath/wcn36xx/txrx.c

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1 Introduction

The driver `drivers/net/wireless/ath/wcn36xx/txrx.c` was introduced in 2013 in the commit `8e84c25`. It is part of a `mac80211` driver for Qualcomm WCN3660/WCN3680 hardware. This driver was accompanied by changes in `MAINTAINERS`, `Kconfig`, and a `makefile`, as well as a new `Kconfig` a new `makefile` and numerous new `.c` and `.h` files. `Gcc` produces 1 error.

2 `struct ieee80211_rx_status.vendor_radiotap_len`

`Gcc` reports that the field `vendor_radiotap_len` of the structure `struct struct ieee80211_rx_status` is not known. We try the following patch query (`step1.cocci`):

```
@bad1 depends on after@
struct ieee80211_rx_status *e;
@@

    e->vendor_radiotap_len

@bad2 depends on after@
struct ieee80211_rx_status e;
@@

    e.vendor_radiotap_len

@bad3 depends on after@
identifier i;
expression e;
@@

struct ieee80211_rx_status i = {
    .vendor_radiotap_len
    = e,
};

@bad4 depends on after@
identifier i;
expression e;
@@

struct ieee80211_rx_status i[...] = {..., {
    .vendor_radiotap_len
    = e,
```

```

},...,};

@depends on !bad1 && !bad2 && !bad3 && !bad4@
struct ieee80211_rx_status *e;
@@

- e->vendor_radiotap_len

@depends on !bad1 && !bad2 && !bad3 && !bad4@
struct ieee80211_rx_status e;
@@

- e.vendor_radiotap_len

@depends on !bad1 && !bad2 && !bad3 && !bad4@
identifier i;
expression e;
@@

struct ieee80211_rx_status i = {
- .vendor_radiotap_len
  = e,
};

@depends on !bad1 && !bad2 && !bad3 && !bad4@
identifier i;
expression e;
@@

struct ieee80211_rx_status i[...] = {..., {
- .vendor_radiotap_len
  = e,
},...,};

```

The only commit is 0059b2b at 13%. It indicates that the field is no longer used. The commit shows that code is specialized to the case where the value is 0. The only thing that our code does with this field is to print its value. It is awkward to completely express this using Coccinelle, because it is necessary to change what is inside a string, but the basic idea is:

```

@@
identifier f;
struct ieee80211_rx_status status;
@@

f(...,
- status.vendor_radiotap_len,
  ...)

```

This is what is done in the v4.6 version of the code.
 == success (1/1)