

aic8800_linux_driver使用说明_20230609

1. 准备工作

安装驱动之前，在aic8800_linux_drvier目录下运行 **install_setup.sh**

```
sudo ./install_setup.sh
```

```
aic@aic-ThinkPad-T470:~/workspace/aic8800_linux_driver$  
aic@aic-ThinkPad-T470:~/workspace/aic8800_linux_driver$ sudo ./install_setup.sh  
#####  
AIC Wi-Fi driver Setup Files script  
2023.03.09 v1.1.0  
#####  
Authentication requested [root] for setup:  
#####  
The Setup Script is completed !  
#####  
aic@aic-ThinkPad-T470:~/workspace/aic8800_linux_driver$ S
```

2. 编译驱动

切换到aic8800_linux_driver/driver/aic8800目录下，运行 **make**。

```
aic@aic:~/workspace/aic8800_linux_driver/drivers/aic8800$  
aic@aic:~/workspace/aic8800_linux_driver/drivers/aic8800$ make  
make -C /lib/modules/5.15.0-67-generic/build M=/home/aic/workspace/aic8800_linux_driver/drivers/aic8800 ARCH=x86_64 CROSS_COMPILE= modules  
make[1]: 进入目录 “/usr/src/linux-headers-5.15.0-67-generic”  
 CC [M]  /home/aic/workspace/aic8800_linux_driver/drivers/aic8800/aic_load_fw/aic_bluetooth_main.o  
 CC [M]  /home/aic/workspace/aic8800_linux_driver/drivers/aic8800/aic_load_fw/aicbluetooth.o  
 CC [M]  /home/aic/workspace/aic8800_linux_driver/drivers/aic8800/aic_load_fw/aicwf_usb.o  
 CC [M]  /home/aic/workspace/aic8800_linux_driver/drivers/aic8800/aic_load_fw/aic_txrxif.o  
 CC [M]  /home/aic/workspace/aic8800_linux_driver/drivers/aic8800/aic_load_fw/aicbluetooth_cmds.o
```

编译完成后，可以检查是否有[aic_load_fw.ko](#)以及[aic8800_fdrv.ko](#)

```
aic@aic:~/workspace/aic8800_linux_driver/drivers/aic8800$ ls aic_load_fw/aic_load_fw.ko  
aic_load_fw/aic_load_fw.ko  
aic@aic:~/workspace/aic8800_linux_driver/drivers/aic8800$ ls aic8800_fdrv/aic8800_fdrv.ko  
aic8800_fdrv/aic8800_fdrv.ko
```

3. 加载驱动

切换到aic8800_linux_driver/driver/aic8800目录下，运行下面的命令。

如果是虚拟机，需要先执行 **sudo modprobe cfg80211**，然后再加载驱动。

```
sudo insmod aic_load_fw/aic_load_fw.ko  
sudo insmod aic8800_fdrv/aic8800_fdrv.ko
```

```
aic@aic:~/workspace/aic8800_linux_driver/drivers/aic8800$  
aic@aic:~/workspace/aic8800_linux_driver/drivers/aic8800$ sudo insmod aic_load_fw/aic_load_fw.ko  
aic@aic:~/workspace/aic8800_linux_driver/drivers/aic8800$ sudo insmod aic8800_fdrv/aic8800_fdrv.ko  
aic@aic:~/workspace/aic8800_linux_driver/drivers/aic8800$
```

或者

```
sudo make install
```

```
aic@aic-ThinkPad-T470:~/workspace/aic8800_linux_driver/drivers/aic8800$ sudo make install  
mkdir -p /lib/modules/5.15.0-60-generic/kernel/drivers/net/wireless/aic8800  
install -p -m 644 aic_load_fw/aic_load_fw.ko /lib/modules/5.15.0-60-generic/kernel/drivers/net/wireless/aic8800/  
install -p -m 644 aic8800_fdrv/aic8800_fdrv.ko /lib/modules/5.15.0-60-generic/kernel/drivers/net/wireless/aic8800/  
/sbin/depmod -a 5.15.0-60-generic
```

4. 使用

1. 请先安装驱动，再连接网卡到PC上。
2. 可以使用`ifconfig` 确认网卡是否加载成功。如果有对应的网卡设备，说明加载成功，可以在`wifi`连接界面连接路由器。

```
aic@aic:~/workspace/aic8800_linux_driver/drivers/aic8800$ ifconfig  
eth0: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500  
      ether 48:9e:bd:4d:93:e7 txqueuelen 1000 (以太网)  
        RX packets 0 bytes 0 (0.0 B)  
        RX errors 0 dropped 0 overruns 0 frame 0  
        TX packets 0 bytes 0 (0.0 B)  
        TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0  
  
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536  
      inet 127.0.0.1 netmask 255.0.0.0  
      inet6 ::1 prefixlen 128 scopeid 0x10<host>  
        loop txqueuelen 1000 (本地环回)  
        RX packets 302 bytes 24545 (24.5 KB)  
        RX errors 0 dropped 0 overruns 0 frame 0  
        TX packets 302 bytes 24545 (24.5 KB)  
        TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0  
  
wlan0: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500  
      ether 10:3d:1c:60:57:b1 txqueuelen 1000 (以太网)  
      RX packets 1389 bytes 1030103 (1.0 MB)  
      RX errors 0 dropped 0 overruns 0 frame 0  
      TX packets 731 bytes 122208 (122.2 KB)  
      TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0  
  
wlan1: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500  
      inet6 fe80::29f5:ea22:3a74:76c2 prefixlen 64 scopeid 0x20<link>  
      ether a6:9c:88:00:7a:00 txqueuelen 1000 (以太网)  
      RX packets 0 bytes 0 (0.0 B)  
      RX errors 0 dropped 0 overruns 0 frame 0  
      TX packets 7 bytes 895 (895.0 B)  
      TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

5. 卸载驱动

卸载驱动执行下面的命令：

```
sudo rmmod aic8800_fdrv  
sudo rmmod aic_load_fw
```

```
aic@aic-ThinkPad-T470:~/workspace/aic8800_linux_driver/drivers/aic8800$  
aic@aic-ThinkPad-T470:~/workspace/aic8800_linux_driver/drivers/aic8800$  
aic@aic-ThinkPad-T470:~/workspace/aic8800_linux_driver/drivers/aic8800$ sudo rmmod aic8800_fdrv  
aic@aic-ThinkPad-T470:~/workspace/aic8800_linux_driver/drivers/aic8800$ sudo rmmod aic_load_fw  
aic@aic-ThinkPad-T470:~/workspace/aic8800_linux_driver/drivers/aic8800$  
aic@aic-ThinkPad-T470:~/workspace/aic8800_linux_driver/drivers/aic8800$ █
```

或者切换到[aic8800_linux_driver/driver/aic8800](#)目录下运行 `sudo make uninstall`

```
sudo make uninstall
```

```
aic@aic-ThinkPad-T470:~/workspace/aic8800_linux_driver/drivers/aic8800$ sudo make uninstall
rm -rfv /lib/modules/5.15.0-60-generic/kernel/drivers/net/wireless/aic8800/aic_load_fw.ko
removed '/lib/modules/5.15.0-60-generic/kernel/drivers/net/wireless/aic8800/aic_load_fw.ko'
rm -rfv /lib/modules/5.15.0-60-generic/kernel/drivers/net/wireless/aic8800/aic8800_fdrv.ko
removed '/lib/modules/5.15.0-60-generic/kernel/drivers/net/wireless/aic8800/aic8800_fdrv.ko'
/sbin/depmod -a 5.15.0-60-generic
aic@aic-ThinkPad-T470:~/workspace/aic8800_linux_driver/drivers/aic8800$
```

最后执行切换到aic8800_linux_drvier目录下运行uninstall_setup.sh

```
sudo ./uninstall_setup.sh
```

```
aic@aic-ThinkPad-T470:~/workspace/aic8800_linux_driver$ sudo ./uninstall_setup.sh
Clean aic8800 wifi driver setup files!
Authentication requested [root] for clean:
The Uninstall Setup Script is completed!
aic@aic-ThinkPad-T470:~/workspace/aic8800_linux_driver$
```