CentOS 安装和配置无线网卡指南

1.下载无线网卡驱动程序；

2.安装无线网卡驱动程序；

3.配置无线拨号配置文件；

4.注意事项。

1，到 http://snapshots.madwifi-project.org/madwifi-hal-0.10.5.6 下载最新的 madwifi- hal-0.10.5.6 文件，如 madwifi-hal-0.10.5.6-r4016-20090429.tar.gz；

2，解压后.gz 文件后用 make && make install 编译安装，最好从新启动一下系统；

3，确保下列类似信息的存在：[simonsun@magic ~]$ /sbin/lspci | grep Ethernet

02:00.0 Ethernet controller: Realtek Semiconductor Co., Ltd. RTL8111/8168B PCI Express Gigabit Ethernet controller (rev 02)

06:00.0 Ethernet controller: Atheros Communications Inc. AR242x 802.11abg Wireless PCI Express Adapter (rev 01)

[simonsun@magic ~]$ dmesg | grep "HAL"

[simonsun@magic ~]$ /sbin/lsmod | grep ath

dm_multipath 24013 0

scsi_dh 11713 1 dm_multipath

ath_rate_sample 16256 1

ath_pci 230844 0

wlan 203760 5 wlan_tkip,wlan_scan_sta,ath_rate_sample,ath_pci

ath_hal 305632 3 ath_rate_sample,ath_pci

dm_mod 62201 11 dm_multipath,dm_raid45,dm_snapshot,dm_zero,dm_mirror,dm_log

[simonsun@magic ~]$ /sbin/iwlist

Usage: iwlist [interface] scanning

[interface] frequency

[interface] channel

[interface] bitrate

[interface] rate

[interface] encryption

[interface] key

[interface] power

[interface] txpower

[interface] retry

[interface] ap

[interface] accesspoints

[interface] peers

[interface] event

[simonsun@magic ~]$

即：网卡是否检测到、网卡驱动是否被系统识别、是否有错误信息等。

然后开始搜寻无线**网络**，如

[simonsun@magic ~]$ /sbin/iwlist ath0 scan

ath0 Scan completed :

Cell 01 - Address: 08:10:74:2B:C3:90

ESSID:"NETCORE"

Mode:Master

Frequency:2.437 GHz (Channel 6)

Quality=46/70 Signal level=-49 dBm Noise level=-95 dBm

Encryption key:on

Bit Rates:1 Mb/s; 2 Mb/s; 5.5 Mb/s; 11 Mb/s; 6 Mb/s

9 Mb/s; 12 Mb/s; 18 Mb/s; 24 Mb/s; 36 Mb/s

48 Mb/s; 54 Mb/s

Extra:bcn_int=100

IE: WPA Version 1

Group Cipher : TKIP

Pairwise Ciphers (1) : TKIP

Authentication Suites (1) : PSK

Cell 02 - Address: 00:22:B0:91:5B:D1

ESSID:"dlink-starsing"

Mode:Master

Frequency:2.417 GHz (Channel 2)

Quality=23/70 Signal level=-72 dBm Noise level=-95 dBm

Encryption key:on

Bit Rates:1 Mb/s; 2 Mb/s; 5.5 Mb/s; 11 Mb/s; 6 Mb/s

9 Mb/s; 12 Mb/s; 18 Mb/s; 24 Mb/s; 36 Mb/s

48 Mb/s; 54 Mb/s

Extra:bcn_int=100

IE: IEEE 802.11i/WPA2 Version 1

Group Cipher : TKIP

Pairwise Ciphers (2) : CCMP TKIP

Authentication Suites (1) : PSK

IE: WPA Version 1

Group Cipher : TKIP

Pairwise Ciphers (2) : CCMP TKIP

Authentication Suites (1) : PSK

Extra:ath_ie=dd0900037f01010060ff7f

Cell 03 - Address: 00:19:E0:AD:B1:5E

ESSID:"TP-LINK"

Mode:Master

Frequency:2.437 GHz (Channel 6)

Quality=17/70 Signal level=-78 dBm Noise level=-95 dBm

Encryption key:on

Bit Rates:1 Mb/s; 2 Mb/s; 5.5 Mb/s; 11 Mb/s; 6 Mb/s

12 Mb/s; 24 Mb/s; 36 Mb/s; 9 Mb/s; 18 Mb/s

48 Mb/s; 54 Mb/s

Extra:bcn_int=100

Extra:ath_ie=dd0900037f01010008ff7f

Cell 04 - Address: 00:21:27:BA:63:A2

ESSID:"TP-LINK_BA63A0"

Mode:Master

Frequency:2.437 GHz (Channel 6)

Quality=12/70 Signal level=-83 dBm Noise level=-95 dBm

Encryption key:off

Bit Rates:1 Mb/s; 2 Mb/s; 5.5 Mb/s; 11 Mb/s; 6 Mb/s

9 Mb/s; 12 Mb/s; 18 Mb/s; 24 Mb/s; 36 Mb/s

48 Mb/s; 54 Mb/s

Extra:bcn_int=100

Extra:wme_ie=dd180050f2020101030003a4000027a4000042435e0062322f00

Extra:ath_ie=dd0900037f01010000ff7f

Cell 05 - Address: 00:B0:0C:04:C4:D2

ESSID:"TENDA"

Mode:Master

Frequency:2.452 GHz (Channel 9)

Quality=15/70 Signal level=-80 dBm Noise level=-95 dBm

Encryption key:on

Bit Rates:6 Mb/s; 9 Mb/s; 12 Mb/s; 18 Mb/s; 24 Mb/s

36 Mb/s; 48 Mb/s; 54 Mb/s

Extra:bcn_int=100

Cell 06 - Address: 00:23:CD:36:D3:C4

ESSID:"TP-LINK_36D3C4"

Mode:Master

Frequency:2.437 GHz (Channel 6)

Quality=11/70 Signal level=-84 dBm Noise level=-95 dBm

Encryption key:off

Bit Rates:1 Mb/s; 2 Mb/s; 5.5 Mb/s; 11 Mb/s; 6 Mb/s

12 Mb/s; 24 Mb/s; 36 Mb/s; 9 Mb/s; 18 Mb/s

48 Mb/s; 54 Mb/s

Extra:bcn_int=100

Extra:ath_ie=dd0900037f01010008ff7f

Cell 07 - Address: 00:B0:0C:03:B0:64

ESSID:"Tenda"

Mode:Master

Frequency:2.437 GHz (Channel 6)

Quality=17/70 Signal level=-78 dBm Noise level=-95 dBm

Encryption key:on

Bit Rates:1 Mb/s; 2 Mb/s; 5.5 Mb/s; 11 Mb/s; 9 Mb/s

18 Mb/s; 36 Mb/s; 54 Mb/s; 6 Mb/s; 12 Mb/s

24 Mb/s; 48 Mb/s

Extra:bcn_int=100

Extra:wme_ie=dd180050f2020101000003a4000027a4000042435e0062322f00

Cell 08 - Address: 00:1B:11:8C:3B:8C

ESSID:"dlink"

Mode:Master

Frequency:2.462 GHz (Channel 11)

Quality=7/70 Signal level=-88 dBm Noise level=-95 dBm

Encryption key:on

Bit Rates:1 Mb/s; 2 Mb/s; 5.5 Mb/s; 11 Mb/s; 6 Mb/s

9 Mb/s; 12 Mb/s; 48 Mb/s; 18 Mb/s; 24 Mb/s

36 Mb/s; 54 Mb/s

Extra:bcn_int=100

根据实际情况编辑如下文件，或者通过 system-config-network 的图形化界面配置，

[simonsun@magic ~]$ sudo vim /etc/sysconfig/network-scripts/ifcfg-ath0

Atheros Communications Inc. AR242x 802.11abg Wireless PCI Express Adapter

DEVICE=ath0

BOOTPROTO=none

ONBOOT=no

HWADDR=00:22:43:2d:ae:2b

NETMASK=255.255.255.0

DHCP_HOSTNAME=

IPADDR=192.168.0.152

DOMAIN=

TYPE=Wireless

ESSID=NETCORE

CHANNEL=

MODE=Managed

SECURITYMODE=off

RATE=auto

USERCTL=no

IPV6INIT=no

PEERDNS=yes

GATEWAY=192.168.0.1

配好会有：

[simonsun@magic ~]$ /sbin/iwconfig ath0

ath0 IEEE 802.11g ESSID:"NETCORE" Nickname:"magic.linux"

Mode:Managed Frequency:2.437 GHz Access Point: 08:10:74:2B:C3:90

Bit Rate:48 Mb/s Tx-Power:17 dBm Sensitivity=1/1

Retry:off RTS thr:off Fragment thr:off

Power Management:off

Link Quality=48/70 Signal level=-48 dBm Noise level=-96 dBm

Rx invalid nwid:38122 Rx invalid crypt:0 Rx invalid frag:0

Tx excessive retries:0 Invalid misc:0 Missed beacon:0

最后，激活配置好的无线网卡，

[simonsun@magic ~]$ sudo /sbin/ifconfig ath0 up

[simonsun@magic ~]$ sudo /sbin/ifup ath0

[simonsun@magic ~]$ /sbin/ifconfig ath0

ath0 Link encap:Ethernet HWaddr 00:22:43:2D:AE:2B

inet addr:192.168.0.152 Bcast:192.168.0.255 Mask:255.255.255.0

inet6 addr: fe80::222:43ff:fe2d:ae2b/64 Scope:Link

UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1

RX packets:106106 errors:0 dropped:0 overruns:0 frame.:0

TX packets:30806 errors:1 dropped:1 overruns:0 carrier:0

collisions:0 txqueuelen:0

RX bytes:140732082 (134.2 MiB) TX bytes:1976717 (1.8 MiB)

[simonsun@magic ~]$ ping www.google.com

PING www-china.l.google.com (66.249.89.99) 56(84) bytes of data.

64 bytes from jp-in-f99.google.com (66.249.89.99): icmp_seq=1 ttl=246 time=67.1 ms

64 bytes from jp-in-f99.google.com (66.249.89.99): icmp_seq=2 ttl=246 time=65.3 ms

64 bytes from jp-in-f99.google.com (66.249.89.99): icmp_seq=3 ttl=246 time=66.4 ms

64 bytes from jp-in-f99.google.com (66.249.89.99): icmp_seq=4 ttl=246 time=65.8 ms

--- www-china.l.google.com ping statistics ---

4 packets transmitted, 4 received, 0% packet loss, time 3001ms

rtt min/avg/max/mdev = 65.352/66.205/67.137/0.714 ms

[simonsun@magic ~]$

4.注意事项，一般需要设置 DNS，不要忘了；如果是根据 mac 地址限制网络使用的话，一定要将无线网卡的 mac 地址正确的添加到**路由器**；如果连接模式通过 WPA-PSK 进行加密登录的话，就需要用到 wpa_supplicant:

[simonsun@magic ~]$ sudo yum install *wpa*

[simonsun@magic ~]$ /usr/sbin/wpa_passphrase NETCORE 123456781

network={

    ssid="NETCORE"

    #psk="123456781"

    psk=21135846dce955a6319561d7216a1407d1cb97b8fb339c05f8773a3f780d6663

}

[simonsun@magic ~]$ sudo vim /etc/wpa_supplicant/wpa_supplicant.conf

修改如下：

ctrl_interface=/var/run/wpa_supplicant

ctrl_interface_group=wheel

#network={

ssid="any"

key_mgmt=NONE

#}

network={

ssid="NETCORE"

#psk="123456781"

psk=21135846dce955a6319561d7216a1407d1cb97b8fb339c05f8773a3f780d6663

}

[simonsun@magic ~]$ sudo vim /etc/sysconfig/wpa_supplicant

修改 INTERFACES 为前面装好驱动后识别的网卡，如 ath0，我这里是：

Use the flag "-i" before each of your interfaces, like so:

INTERFACES="-i eth1 -i wlan0"

INTERFACES="-i ath0"

Use the flag "-D" before each driver, like so:

DRIVERS="-D wext"

DRIVERS="-D wext"

Other arguments

-u Enable the D-Bus interface (required for use with NetworkManager)

-f Log to /var/log/wpa_supplicant.log

OTHER_ARGS="-u -f /var/log/wpa_supplicant.log"

，然后启动 wpa 服务，

[simonsun@magic ~]$ sudo /etc/rc.d/init.d/wpa_supplicant start

Starting wpa_supplicant: /etc/wpa_supplicant/wpa_supplicant[确定]-i ath0 -D wext -u -f

/var/log/wpa_supplicant.log

，然后拨号，平时上网，只执行如下脚本即可

sudo /sbin/ifconfig ath0 up

sudo /sbin/ifdown ath0

sudo /sbin/ifup ath0

sudo /etc/rc.d/init.d/wpa_supplicant restart

sudo /etc/rc.d/init.d/iptables restart

参考连接：

http://wiki.centos.org/HowTos/Laptops/WirelessAR5007EG

http://hi.baidu.com/netred/blog/item/6d7f061f708b8ccfa786691e.html

BTW，特别鸣谢秦公子网络环境方面的帮助。

20090622，如果系统内核升级了，必须重新编译一下驱动，再次配置。

备注：

如果 SSID 名字改了，须要重新修改无线网络配置里的无线**设置**的网络名称的指定的，同时**必须**(千万别忘了）重新生成一下密码钥匙，即：用/usr/sbin/wpa_passphrase 新名字 新密码，然后再次拨号即可。其实最合理的是，从新建一个无线拨号连接，当然也得重新生成一下密码钥匙，添加到 /etc/wpa_supplicant/wpa_supplicant.conf 里。