

## Testing Modem Manager and Networkmanager

**mmcli** is used to Control and monitor the ModemManager.

**nmcli** is used for manage network connection .

1) List of modules connected :-

command :- mmcli -L

```
root@nikhil-patil:/home/vvdn# mmcli -L
Found 1 modems:
  /org/freedesktop/ModemManager1/Modem/0 [Quectel] EC20F
```

retrive module id i.e 0. we can use these module id to enable module.

2) Enable Module :-

command :- mmcli -m 0 -e

```
root@nikhil-patil:/home/vvdn#
root@nikhil-patil:/home/vvdn# mmcli -m 0 -e
successfully enabled the modem
```

### 3) For Module Info :-

command :- mmcli -m 0

```
vvdn@vvdn: ~/Downloads
mamatha@bangalorevm: /data/mamatha/new_clone... x
nikhil@bangalorevm: /data/nikhil/praveen/inti_dms... x
vvdn@vvdn: ~/Downloads

root@intel-corei7-64:~# mmcli -m 0

/org/freedesktop/ModemManager1/Modem/0 (device id '710f6e1f0060870c0b790e502890d3b4a7538dbc')
-----
Hardware | manufacturer: 'QUALCOMM INCORPORATED'
          | model: 'QUECTEL Mobile Broadband Module'
          | revision: 'EC20CEFDLGR06A06M1G'
          | supported: 'gsm-umts
          |           | cdma-evdo
          |           | lte
          |           | cdma-evdo, gsm-umts
          |           | gsm-umts, lte
          |           | cdma-evdo, lte
          |           | cdma-evdo, gsm-umts, lte'
          | current: 'cdma-evdo, gsm-umts, lte'
          | equipment id: '869756048295866'
-----
System   | device: '/sys/devices/pci0000:00/0000:00:15.0/usb1/1-2'
          | drivers: 'option1, qmi_wwan'
          | plugin: 'Generic'
          | primary port: 'cdc-wdm0'
          | ports: 'ttyUSB0 (qcdm), ttyUSB2 (at), cdc-wdm0 (qmi), wwan0 (net), ttyUSB3 (at)'
-----
Numbers  |      own: 'unknown'
-----
Status   | lock: 'sim-pin2'
          | unlock retries: 'sim-pin (3), sim-pin2 (3), sim-puk (10), sim-puk2 (10)'
          | state: 'registered'
          | power state: 'on'
          | access tech: 'lte'
          | signal quality: '89' (recent)
-----
Modes    | supported: 'allowed: 2g, 3g, 4g; preferred: none'
          | current: 'allowed: 2g, 3g, 4g; preferred: none'
-----
Bands    | supported: 'cdma-bc0-cellular-800, dcs, egsm, u2100, u900, eutran-i, eutran-iii, eutran-v, eutran-viii, eutran-xxxiv, eutran'
          | current: 'cdma-bc0-cellular-800, dcs, egsm, u2100, u900, eutran-i, eutran-iii, eutran-v, eutran-viii, eutran-xxxiv, eutran'
-----
IP        | supported: 'ipv4, ipv6, ipv4v6'
-----
3GPP     | imei: '869756048295866'
```

To enable bearers:-  
command :- mmcli -b 0

```
vvdn@vvdn: ~
vvdn@vvdn: ~
vvdn@vvdn: ~
root@intel-corei7-64:~#
root@intel-corei7-64:~#
root@intel-corei7-64:~#
root@intel-corei7-64:~# Uptime: kernel validity duration has 14390 minute(s) remaining
root@intel-corei7-64:~# mmcli -m 0 --simple-connect="apn=internet"
successfully connected the modem
root@intel-corei7-64:~# mmcli -m 0 --list-bearers
Found 1 bearers:
  /org/freedesktop/ModemManager1/Bearer/0
root@intel-corei7-64:~# mmcli -b 0
Bearer '/org/freedesktop/ModemManager1/Bearer/0'
-----
Status | connected: 'yes'
      | suspended: 'no'
      | interface: 'wwp0s21f0u5i4'
      | IP timeout: '20'
-----
Properties | apn: 'internet'
          | roaming: 'allowed'
          | IP type: 'none'
          | user: 'none'
          | password: 'none'
          | number: 'none'
          | Rm protocol: 'unknown'
-----
IPv4 configuration | method: 'static'
                  | address: '100.96.181.196'
                  | prefix: '29'
                  | gateway: '100.96.181.197'
                  | DNS: '125.22.47.102', '59.144.144.106'
                  | MTU: '1500'
-----
IPv6 configuration | method: 'unknown'
-----
Stats | Duration: '540'
     | Bytes received: 'N/A'
     | Bytes transmitted: 'N/A'
root@intel-corei7-64:~#
CTRL-A Z for help | 115200 8N1 | NOR | Minicom 2.7 | VT102 | Offline | ttyUSB0
```

## ifconfig command :-

```
root@intel-corei7-64:~# ifconfig -a
enp2s0  Link encap:Ethernet HWaddr 98:4F:EE:14:03:09
        UP BROADCAST MULTICAST MTU:1500 Metric:1
        RX packets:0 errors:0 dropped:0 overruns:0 frame:0
        TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:1000
        RX bytes:0 (0.0 B) TX bytes:0 (0.0 B)
        Memory:93a00000-93a1ffff

lo      Link encap:Local Loopback
        inet addr:127.0.0.1 Mask:255.0.0.0
        inet6 addr: ::1/128 Scope:Host
        UP LOOPBACK RUNNING MTU:65536 Metric:1
        RX packets:82 errors:0 dropped:0 overruns:0 frame:0
        TX packets:82 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:1000
        RX bytes:6220 (6.0 KiB) TX bytes:6220 (6.0 KiB)

sit0    Link encap:IPv6-in-IPv4
        NOARP MTU:1480 Metric:1
        RX packets:0 errors:0 dropped:0 overruns:0 frame:0
        TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:1000
        RX bytes:0 (0.0 B) TX bytes:0 (0.0 B)

wwp0s21f0u5u3i4 Link encap:UNSPEC HWaddr 00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00
        POINTOPOINT NOARP MULTICAST MTU:1500 Metric:1
        RX packets:0 errors:0 dropped:0 overruns:0 frame:0
        TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:1000
        RX bytes:0 (0.0 B) TX bytes:0 (0.0 B)
```

**Note :- Not get IP for interface wwp0s21f0u5u3i4**

## Configuration to connect internet :-

1) Display Connected devices :-

command :- nmcli devices

**NOTE :- In these I am getting module interface but showing unmanaged .**

2) Create a new connection :-

```
root@intel-corei7-64:~# nmcli c add type gsm ifname cdc-wdm0 con-name quectel apn internet
Connection 'quectel' (8ae9d9a9-8fa5-4aee-8ba1-9df2a6d46ede) successfully added.
root@intel-corei7-64:~# █
```

**Note :-** i used **nmcli c add type gsm ifname wwp0s21f0u5u3i4 con-name quectel apn internet** also.

But then also our connection name (eg . quectel) shows **unmanaged** in **nmcli d** command .

3) connection up :-

```
root@intel-corei7-64:~# nmcli c up quectel
Error: Connection activation failed: No suitable device found for this connection.
root@intel-corei7-64:~# █
```