

ASUSTek Computer Inc.

ASUS Connectivity Manager Command Line Interface User Manual

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Revision History

Revision	Date	Change
1.00	2022/01/17	Initial release



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1 Introduction

ASUS Connectivity manager is a tool on user space that helps user to establish data connection through modem manager and network manager easily. It also provide features for auto reconnect on cellular network and failover with all network interfaces to ensure that device is always online.

Supported functions:

- Auto generate cellular network settings based on SIM card info
- Retrive register status, signal, cell location, SIM card info from modem
- Power and flight mode control on modem
- Failover through different network interfaces
- Auto connect to cellular network when available

2 Usage

The basic ASUS Connectivity manager command pattarn is as followed:

```
asus_cmcli [COMMAND] [PARAMS]
```

Which COMMAND means different function and PARAMS are depanded on what command needs. In addition to terminal, logs will also printed at /var/log/syslog while executing asus_cmcli.

2.1 Get modem info

```
asus_cmcli get_modems
```

Description

Get the information of modems.

Return

```
sh-5.0# asus_cmcli get_modems
Index: 0
Path: /org/freedesktop/ModemManager1/Modem/0
Manufacturer: QUALCOMM INCORPORATED
Name: QUECTEL Mobile Broadband Module
Version: EC25JFAR06A05M4G
```



2.2 Start network

```
asus_cmcli start
```

Description

Start the cellular network connectivity.

Return

```
sh-5.0# asus_cmcli start
no previous settings, create new by sim's mcc mnc
modem detected
check profile with mcc=466 and mnc=92
use connection settings with apn=internet, user=, password=
connecting...
```

2.3 Stop network

```
asus_cmcli stop
```

Description

Stop the cellular network connectivity.

Return

```
sh-5.0# asus_cmcli stop
disconnecting Cellular...
Connection 'Cellular' successfully deactivated (D-Bus active path:
/org/freedesktop/NetworkManager/ActiveConnection/4)
```

2.4 Power on

```
asus_cmcli power_on
```

Description



Power on the modem.

Return

```
sh-5.0# asus_cmcli power_on
modem power state is on
power already on
```

2.5 Power off

```
asus_cmcli power_off
```

Description

Power off the modem.

Return

```
sh-5.0# asus_cmcli power_off
modem power state is on
set modem power state off
```

2.6 Power cycle

```
asus_cmcli power_cycle
```

Description

Power off and power on the modem.

Return

```
sh-5.0# asus_cmcli power_cycle
modem power state is on
set modem power state off
modem power state is off
reset modem to turn on
```



2.7 Keep alive

```
asus_cmcli keepalive [PARAMS]
```

Description

Control the keep alive feature for connecting to cellular network automatically.

Parameters

Params	Description
status	Show current status
start	Turn on the keep alive feature
stop	Turn off the keep alive feature

Return

```
sh-5.0# asus_cmcli keepalive status
Keepalive status: on
sh-5.0# asus_cmcli keepalive stop
Disable keepalive service
sh-5.0# asus_cmcli keepalive start
Enable keepalive service
```

2.8 Get status

```
asus_cmcli status
```

Description

Get the status of the cellular network connection and the information of IP.

Return



```
sh-5.0# asus_cmcli status
Connected: yes
Interface: wwan0
Apn: internet
Roaming: allowed
IPv4 address: 10.44.15.29
IPv4 gateway: 10.44.15.30
IPv4 mtu: 1500
IPv4 dns: 168.95.1.1 / 168.95.192.1
IPv6 address: --
IPv6 gateway: --
IPv6 mtu: --
IPv6 dns: --
```

2.9 Get attached status

```
asus_cmcli attach_status
```

Description

Get the attached status of the modem, including the state of the modem and the access technology that the modem use with, or connection status to carrier's network.

Return

```
sh-5.0# asus_cmcli attach_status
Registration state: connected
Flight mode: off
Radio interface: lte
```

2.10 Switch SIM

```
asus_cmcli switch_sim [PARAMS]
```

Description

Switch the SIM slot, only available on the device with multiple SIM slots.



Parameters

Params	Description
Id	SIM slot Ids

Return

```
sh-5.0# asus_cmcli switch_sim 1
set sim_id as 1
Completion code = 0x00
```

2.11 Unlock SIM

```
asus_cmcli unlock_pin [PARAMS]
```

Description

Unlock the SIM by PIN code.

Parameters

Params	Description
PinCode	SIM card's PIN code

Return

```
sh-5.0# asus_cmcli unlock_pin 0000
successfully sent PIN code to the SIM
```

2.12 Flight mode

```
asus_cmcli set_flight_mode [PARAMS]
```

Description

Turn on or turn off the flight mode.

Parameters



Params	Description
on	Turn on the flight mode.
off	Turn off the flight mode.

Return

```
sh-5.0# asus_cmcli set_flight_mode off
successfully enabled the modem
```

2.13 Set APN

```
asus_cmcli set_apn [PARAMS]
```

Description

Set APN to the profile.

Parameters

Params	Description
APN	Access Point Name for connecting to the carrier's cellular network.

Return

```
sh-5.0# asus_cmcli set_apn internet
modify connection settings with apn=internet
```

2.14 Set user

```
asus_cmcli set_user [PARAMS]
```

Description

Set user name to the profile.

Parameters

Params	Description
User	User name for connecting to the carrier's cellular network.



Return

```
sh-5.0# asus_cmcli set_user myUser  
modify connection settings with user=myUser
```

2.15 Set password

```
asus_cmcli set_password [PARAMS]
```

Description

Set password to the profile.

Parameters

Params	Description
Password	Password for connecting to the carrier's cellular network.

Return

```
sh-5.0# asus_cmcli set_password myPassword  
modify connection settings with password=myPassword
```

2.16 Set IP Type

```
asus_cmcli set_ip_type [PARAMS]
```

Description

Set allowed IP type to the profile.

Parameters

Params	Description
ipv4	Allowed IPv4 method type for connecting to the carrier's cellular network.
ipv6	Allowed IPv6 method type for connecting to the carrier's cellular network.



ipv4v6	Allowed both IPv4 and IPv6 method type for connecting to the carrier's cellular network.
--------	--

Return

```
sh-5.0# asus_cmcli set_ip_type ipv6
modify connection settings with ip type=ipv6
```

2.17 Get profile

```
asus_cmcli get_profile
```

Description

Get the information of the profile.

Return

```
sh-5.0# asus_cmcli get_profile
Apn: this.is.apn
User: this.is.user
Password: this.is.password
Ipv4: disabled
Ipv6: auto
```

2.18 Reset profile

```
asus_cmcli reset_profile
```

Description

Reset the profile to default value, generated based on carrier's MCCMNC.

Return

```
sh-5.0# asus_cmcli reset_profile
modem detected
check profile with mcc=466 and mnc=92
use connection settings with apn=internet, user=, password=
```



2.19 Switch carrier

```
asus_cmcli switch_carrier [PARAMS]
```

Description

Switch the register network with the input of the carrier's MCCMNC.

Parameters

Params	Description
MCCMNC	Carrier's Mobile Country Code and Mobile Network Code.

Return

```
sh-5.0# asus_cmcli switch_carrier 55123
disconnecting Cellular...
Connection 'Cellular' successfully deactivated (D-Bus active path:
/org/freedesktop/NetworkManager/ActiveConnection/1)
successfully registered the modem
```

2.20 Check carrier

```
asus_cmcli check_carrier
```

Description

Get the information of the carrier including MCC, MNC, and the name of the carrier.

Return

```
sh-5.0# asus_cmcli check_carrier
MCC: 466
MNC: 92
Operator name: Chunghwa
```

2.21 Get ICCID



```
asus_cmcli iccid
```

Description

Get the Integrate Circuit Card Identity.

Return

```
sh-5.0# asus_cmcli iccid  
Iccid: 89886920042034712146
```

2.22 Get IMSI

```
asus_cmcli imsi
```

Description

Get the International Mobile Subscriber Identity.

Return

```
sh-5.0# asus_cmcli imsi  
Imsi: 466924203471214
```

2.23 Get signal strength

```
asus_cmcli signal
```

Description

Get the percentage of the signal strength.

Return

```
sh-5.0# asus_cmcli signal  
Signal strength: 71%
```



2.24 Get advanced signal info

```
asus_cmcli signal_adv
```

Description

Get the signal strength of the different measurement.

Return

```
sh-5.0# asus_cmcli signal_adv
Evdo rssi: -- dBm
Evdo ecio: -- dBm
Evdo sinr: -- dB
Evdo io: -- dBm
Gsm rssi: -- dBm
Umts rssi: -- dBm
Umts rscp: -- dBm
Umts ecio: -- dBm
Lte rssi: -69.00 dBm
Lte rsrq: -9.00 dB
Lte rsrp: -95.00 dBm
Lte snr: 22.20 dB
```

2.25 Get cell location info

```
asus_cmcli location_info
```

Description

Get the information of the cell location.

Return

```
sh-5.0# asus_cmcli location_info
Operator code: 466
Operator name: 92
Location area code: FFFE
Tracking area code: 2C24
Cell id: 03406935
```




2.26 Set failover

```
asus_cmcli failover set [PARAM1] [PARAM2]
```

Description

Set variables of the failover feature.

Parameters

Param1	Param2	Description
status	on	Turn on the failover service.
status	off	Turn off the failover service.
group	InterfaceName	Set the priority interface of the group.

Return

```
sh-5.0# asus_cmcli failover set status on
sh-5.0# asus_cmcli failover set group wwan0 eth0 wlan0
sh-5.0# asus_cmcli failover show group
wwan0, eth0, wlan0
sh-5.0# asus_cmcli failover show status
on
```

2.27 Get failover status

```
asus_cmcli failover show [PARAMS]
```

Description

Get variables of the failover feature.

Parameters

Params	Description
status	Show the status of the failover feature, on or off.
group	Show the interface priority of the group.

Return



```
sh-5.0# asus_cmcli failover show group  
wwan0, eth0, wlan0  
sh-5.0# asus_cmcli failover show status  
on
```