

Test Report for LP#1946143

Test Report for LP#1946143	1
Tests	1
Tested Platform: Lenovo ThinkEdge SE30(11NE)	1
Impish(21.10)	1
Setup Environment	1
Make sure the modem is working with the libqmi-utils upgraded	2
Test the 5G status	2
Result: Pass	3
Hirsute(21.04)	3
Setup Environment	3
Make sure the modem is working with the libqmi-utils upgraded	4
Test the 5G status	4
Result: Pass	5
Focal(20.04)	5
Setup Environment	5
Make sure the modem is working with the libqmi-utils upgraded	6
Test the 5G status	6
Result: Pass	7

Tests

Tested Platform: Lenovo ThinkEdge SE30(11NE)

Impish(21.10)

Setup Environment

- Install Ubuntu Impish system
- This platform includes the **Foxconn** modem T99W175

```
$ uname -a
Linux u-ThinkEdge 5.13.0-20-generic #20-Ubuntu SMP Fri Oct 15 14:21:35 UTC 2021 x86_64
x86_64 x86_64 GNU/Linux
```

```
$ sudo dmesg | grep e0ab
```

```
[ 0.441585] pci 0000:2d:00.0: [105b:e0ab] type 00 class 0x0d4000
```

- Updating ModemManager suite from the **-proposed** channel

Add the APT source:

```
cat <<EOF >/etc/apt/sources.list.d/ubuntu-$(lsb_release -cs)-proposed.list
# Enable Ubuntu proposed archive
deb http://archive.ubuntu.com/ubuntu/ $(lsb_release -cs)-proposed restricted
main multiverse universe
EOF
```

```
$ sudo systemctl stop ModemManager.service
$ sudo apt update
$ sudo apt install modemmanager libqmi-utils
$ dpkg -l | grep libqmi-utils
ii libqmi-utils          1.28.6-2ubuntu1      amd64    Utilities to use the QMI
protocol from the command line
$ sudo reboot
```

Make sure the modem is working with the libqmi-utils upgraded

```
$ sudo mmcli -L
/org/freedesktop/ModemManager1/Modem/0 [foxconn] MBIM [105B:E0AB]

$ sudo snap refresh snapd
$ sudo snap install lenovo-wwan-dpr --channel=latest/stable
lenovo-wwan-dpr 1.0.2-wwan-dpr from Snap Linux Lenovo (lenovo-snap*) installed

$ sudo mmcli -m 0 --enable
successfully enabled the modem

$ sudo mmcli -m 0 --simple-connect="pin=0000,apn=emome"
successfully connected the modem
```

Test the 5G status

```
$ sudo qmicli --device=/dev/wwan0p2MBIM --device-open-proxy
--nas-get-system-info
[/dev/wwan0p2MBIM] Successfully got system info:
  WCDMA service:
    Status: 'none'
    True Status: 'none'
    Preferred data path: 'no'
  LTE service:
```

```
Status: 'available'  
True Status: 'available'  
Preferred data path: 'no'  
Domain: 'cs-ps'  
Service capability: 'cs-ps'  
Roaming status: 'off'  
Forbidden: 'no'  
Cell ID: '55519266'  
MCC: '466'  
MNC: '92'  
Tracking Area Code: '11200'  
Voice support: 'no'  
IMS voice support: 'yes'  
eMBMS coverage info support: 'no'  
eMBMS coverage info trace ID: '65535'  
Cell access: 'all-calls'  
Registration restriction: 'unrestricted'  
Registration domain: 'not-applicable'  
5G NSA Available: 'no'  
DCNR Restriction: 'no'  
SIM reject info: 'available'  
5G SA service:  
Status: 'none'  
True Status: 'none'  
Preferred data path: 'no'
```

Result: **Pass**

- The modem is working after the libqmi-utils is upgraded
- The 5G status information can be displayed successfully.

Hirsute(21.04)

Setup Environment

- Install Ubuntu Impish system
- This platform includes the **Foxconn** modem T99W175
- The default kernel is replaced with 5.11.0-1004-intel (necessary for the tested modem's driver)

```
$ uname -a  
Linux u-ThinkEdge 5.11.0-1004-intel #4 SMP Wed Jun 16 01:46:13 CST 2021 x86_64 x86_64  
x86_64 GNU/Linux  
  
$ lsb_release -a  
No LSB modules are available.  
Distributor ID: Ubuntu  
Description: Ubuntu 21.04  
Release: 21.04  
Codename: hirsute
```

```
$ sudo dmesg | grep e0ab
[ 0.441585] pci 0000:2d:00.0: [105b:e0ab] type 00 class 0x0d4000
```

- Updating ModemManager suite from the **-proposed** channel

Add the APT source:

```
cat <<EOF >/etc/apt/sources.list.d/ubuntu-$(lsb_release -cs)-proposed.list
# Enable Ubuntu proposed archive
deb http://archive.ubuntu.com/ubuntu/ $(lsb_release -cs)-proposed restricted
main multiverse universe
EOF
```

```
$ sudo systemctl stop ModemManager.service
$ sudo apt update
$ sudo apt install modemmanager libqmi-utils
$ dpkg -l | grep libqmi-utils
ii libqmi-utils                    1.28.6-1~21.04.1                amd64
Utilities to use the QMI protocol from the command line

$ sudo reboot
```

Make sure the modem is working with the libqmi-utils upgraded

```
$ sudo mmcli -L
/org/freedesktop/ModemManager1/Modem/0 [foxconn] MBIM [105B:E0AB]

$ sudo snap refresh snapd
$ sudo snap install lenovo-wwan-dpr --channel=latest/stable
lenovo-wwan-dpr 1.0.2-wwan-dpr from Snap Linux Lenovo (lenovo-snap*) installed

$ sudo mmcli -m 0 --enable
successfully enabled the modem

$ sudo mmcli -m 0 --simple-connect="pin=0000,apn=emome"
successfully connected the modem
```

Test the 5G status

```
$ sudo qmicli --device=/dev/wwan0p2MBIM --device-open-proxy
--nas-get-system-info
[/dev/wwan0p2MBIM] Successfully got system info:
    WCDMA service:
        Status: 'none'
        True Status: 'none'
```

```
Preferred data path: 'no'
LTE service:
  Status: 'available'
  True Status: 'available'
  Preferred data path: 'no'
  Domain: 'cs-ps'
  Service capability: 'cs-ps'
  Roaming status: 'off'
  Forbidden: 'no'
  Cell ID: '55519266'
  MCC: '466'
  MNC: '92'
  Tracking Area Code: '11200'
  Voice support: 'no'
  IMS voice support: 'yes'
  eMBMS coverage info support: 'no'
  eMBMS coverage info trace ID: '65535'
  Cell access: 'all-calls'
  Registration restriction: 'unrestricted'
  Registration domain: 'not-applicable'
  5G NSA Available: 'no'
  DCNR Restriction: 'no'
SIM reject info: 'available'
5G SA service:
  Status: 'none'
  True Status: 'none'
  Preferred data path: 'no'
```

Result: **Pass**

- The modem is working after the libqmi-utils is upgraded
- The 5G status information can be displayed successfully.

Focal(20.04)

Setup Environment

- Install Ubuntu Impish system
- This platform includes the **Foxconn** modem T99W175
- The default kernel is replaced with 5.11.0-1004-intel (necessary for the tested modem's driver)

```
$ uname -a
Linux u-ThinkEdge 5.11.0-1004-intel #4 SMP Wed Jun 16 01:46:13 CST 2021 x86_64 x86_64
x86_64 GNU/Linux

$ lsb_release -a
No LSB modules are available.
Distributor ID: Ubuntu
Description: Ubuntu 20.04.2 LTS
Release: 20.04
Codename: focal
```

```
$ sudo dmesg | grep e0ab
[ 0.441585] pci 0000:2d:00.0: [105b:e0ab] type 00 class 0x0d4000
```

- Updating ModemManager suite from the **-proposed** channel

Add the APT source:

```
cat <<EOF >/etc/apt/sources.list.d/ubuntu-$(lsb_release -cs)-proposed.list
# Enable Ubuntu proposed archive
deb http://archive.ubuntu.com/ubuntu/ $(lsb_release -cs)-proposed restricted
main multiverse universe
EOF
```

```
$ sudo systemctl stop ModemManager.service
$ sudo apt update
$ sudo apt install modemmanager libqmi-utils
$ dpkg -l | grep libqmi-utils
ii libqmi-utils 1.28.6-1~20.04.1 amd64 Utilities to use the QMI
protocol from the command line
$ sudo reboot
```

Make sure the modem is working with the libqmi-utils upgraded

```
$ sudo mmcli -L
/org/freedesktop/ModemManager1/Modem/0 [foxconn] MBIM [105B:E0AB]

$ sudo snap refresh snapd
$ sudo snap install lenovo-wwan-dpr --channel=latest/stable
lenovo-wwan-dpr 1.0.2-wwan-dpr from Snap Linux Lenovo (lenovo-snap*) installed

$ sudo mmcli -m 0 --enable
successfully enabled the modem

$ sudo mmcli -m 0 --simple-connect="pin=0000,apn=emome"
successfully connected the modem
```

Test the 5G status

```
$ sudo qmicli --device=/dev/wwan0p2MBIM --device-open-proxy
--nas-get-system-info
[/dev/wwan0p2MBIM] Successfully got system info:
WCDMA service:
  Status: 'none'
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```
Preferred data path: 'no'
LTE service:
  Status: 'available'
  True Status: 'available'
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  Domain: 'cs-ps'
  Service capability: 'cs-ps'
  Roaming status: 'off'
  Forbidden: 'no'
  Cell ID: '55519266'
  MCC: '466'
  MNC: '92'
  Tracking Area Code: '11200'
  Voice support: 'no'
  IMS voice support: 'yes'
  eMBMS coverage info support: 'no'
  eMBMS coverage info trace ID: '65535'
  Cell access: 'all-calls'
  Registration restriction: 'unrestricted'
  Registration domain: 'not-applicable'
5G NSA Available: 'no'
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SIM reject info: 'available'
5G SA service:
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```

Result: **Pass**

- The modem is working after the libqmi-utils is upgraded
- The 5G status information can be displayed successfully.