

Test Report for impish-proposed packages

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Tests

Impish(21.10)

Tested Platform: Lenovo ThinkEdge SE30(11ND)

Setup Environment

- Install Ubuntu Impish system
- This platform includes the **Quectel** modem EM160R_GL

```
$ uname -a  
Linux u-ThinkEdge 5.13.0-19-generic #19-Ubuntu SMP Thu Oct 7 21:58:00 UTC 2021 x86_64  
x86_64 x86_64 GNU/Linux  
  
$ sudo dmesg | grep 1eac  
[ 0.441828] pci 0000:2d:00.0: [1eac:1002] type 00 class 0xff0000
```

- 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 modemmanager
ii  modemmanager          1.16.6-2ubuntu1      amd64      D-Bus service for
    managing modems
$ sudo reboot
```

Make sure the modem is working with the ModemManager upgraded

```
$ sudo mmcli -L
/org/freedesktop/ModemManager1/Modem/0 [quectel] EM160R_GL

$ sudo snap refresh snapd
$ sudo snap install lenovo-wwan-dpr --channel=latest/stable
lenovo-wwan-dpr 1.0.1-wwan-dpr from Snap Linux Lenovo (lenovo-snap*) installed

$ sudo mmcli -i 0 --pin=0000
successfully sent PIN code to the SIM

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

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

# reboot
```

Test the firmware upgrading

```
$ lsb_release -a
No LSB modules are available.
Distributor ID: Ubuntu
Description: Ubuntu Impish Indri (development branch)
Release: 21.10
Codename: impish

$ sudo dpkg -i QFirmwareSwitch-0.0.3.deb
Selecting previously unselected package qfirmwareswitch.
(Reading database ... 177682 files and directories currently installed.)
Preparing to unpack QFirmwareSwitch-0.0.3.deb ...
```

```
Failed to stop QFirmwareSwitch.service: Unit QFirmwareSwitch.service not loaded.
Unpacking qfirmwareswitch (0.0.3) ...
Setting up qfirmwareswitch (0.0.3) ...
Created symlink /etc/systemd/system/multi-user.target.wants/QFirmwareSwitch.service ->
/lib/systemd/system/QFirmwareSwitch.service.
```

```
$ sudo dpkg -i QFirmwareEM160-0.0.3.deb
```

```
Selecting previously unselected package qfirmwareem160.
(Reading database ... 177692 files and directories currently installed.)
Preparing to unpack QFirmwareEM160-0.0.3.deb ...
Unpacking qfirmwareem160 (0.0.3) ...
Setting up qfirmwareem160 (0.0.3) ...
```

```
$ sudo reboot
```

```
$ sudo journalctl -f -u QFirmwareSwitch
```

```
-- Journal begins at Wed 2021-10-13 09:47:10 CST. --
Oct 13 10:08:18 u-ThinkEdge QFirmwareSwitch[688]: device_ids =
PCI\VID_1EAC&PID_1002&REV_0000&CARRIER_ROW_COMMERCIAL
Oct 13 10:08:18 u-ThinkEdge QFirmwareSwitch[688]: current full version
EM160RGLAPR02A07M4G_15.015.15.015
Oct 13 10:08:18 u-ThinkEdge QFirmwareSwitch[688]: path = /org/freedesktop/ModemManager1/SIM/0
Oct 13 10:08:18 u-ThinkEdge QFirmwareSwitch[688]: active = 1
Oct 13 10:08:18 u-ThinkEdge QFirmwareSwitch[688]: iccid = 89886920041034881489
Oct 13 10:08:18 u-ThinkEdge QFirmwareSwitch[688]: imsi = 466924103488148
Oct 13 10:08:18 u-ThinkEdge QFirmwareSwitch[688]: eid = (null)
Oct 13 10:08:18 u-ThinkEdge QFirmwareSwitch[688]: find firmware
'EM160RGLAPR02A07M4G_15.015.15.015' for imsi '466924103488148'
Oct 13 10:08:18 u-ThinkEdge QFirmwareSwitch[688]: expect full version
EM160RGLAPR02A07M4G_15.015.15.015
Oct 13 10:08:18 u-ThinkEdge QFirmwareSwitch[688]: two full version are same, no need to update
```

Result: **Pass**

- The modem is working after the ModemManager is upgraded
- The modem's firmware can be upgraded via the Quectel's utility successfully.

Tested Platform: Lenovo ThinkEdge SE30(11NE)

Setup Environment

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

```
$ uname -a
```

```
Linux u-ThinkEdge 5.13.0-19-generic #19-Ubuntu SMP Thu Oct 7 21:58:00 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 modemmanager
ii  modemmanager          1.16.6-2ubuntu1      amd64      D-Bus service for
    managing modems
$ sudo reboot
```

Make sure the modem is working with the ModemManager upgraded

```
$ sudo mmcli -L
/org/freedesktop/ModemManager1/Modem/0 [foxconn] Qualcomm Snapdragon X55 5G

$ sudo snap refresh snapd
$ sudo snap install lenovo-wwan-dpr --channel=latest/stable
lenovo-wwan-dpr 1.0.1-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

# reboot
```

Test the firmware upgrading

```
$ lsb_release -a
No LSB modules are available.
Distributor ID: Ubuntu
Description: Ubuntu 21.10
Release: 21.10
Codename: impish

$ sudo dpkg -i --force-overwrite qdutool_amd64.deb
Selecting previously unselected package qdutool.
(Reading database ... 189511 files and directories currently installed.)
```

```
Preparing to unpack qdutool_amd64.deb ...
Unpacking qdutool (1.0) ...
Setting up qdutool (1.0) ...
QduTool installed successfully

$ sudo systemctl stop ModemManager.service

$ lspci -PP | grep e0ab
00:1c.0/2d:00.0 Wireless controller [0d40]: Foxconn International, Inc. Device e0ab

$ cd /sys/bus/pci/devices/0000:00:1c.0/0000:2d:00.0/power/
$ sudo su
/sys/devices/pci0000:00/0000:00:1c.0/0000:2d:00.0/power# echo 10000 >
autosuspend_delay_ms

# QDUTool -d /dev/wwan0p2MBIM --qdu-ota-update=/home/u/ota.bin
[12 Oct 2021, 17:34:15] -Warning ** [/dev/wwan0p2MBIM] Couldn't find udev device
[12 Oct 2021, 17:34:15] -Warning ** [/dev/wwan0p2MBIM] Couldn't get descriptors file path
Asynchronously update QDU ota file.../home/u/ota.bin
[/dev/wwan0p2MBIM] Successfully requested modem to update session

Asynchronously opening QDU file... /home/u/ota.bin
[/dev/wwan0p2MBIM] Successfully opening QDU file
=====> Update OTA file: 100%
Successfully upgrade OTA image
Wait switch bootup partition and reboot
```

Result: **Pass**

- The modem is working after the ModemManager is upgraded
- The modem's firmware can be upgraded via Foxconn's utility successfully.