simsquare Cat.M1 module Hands-On Guide
- Jetson Nano (with PPP) -

version 1.0

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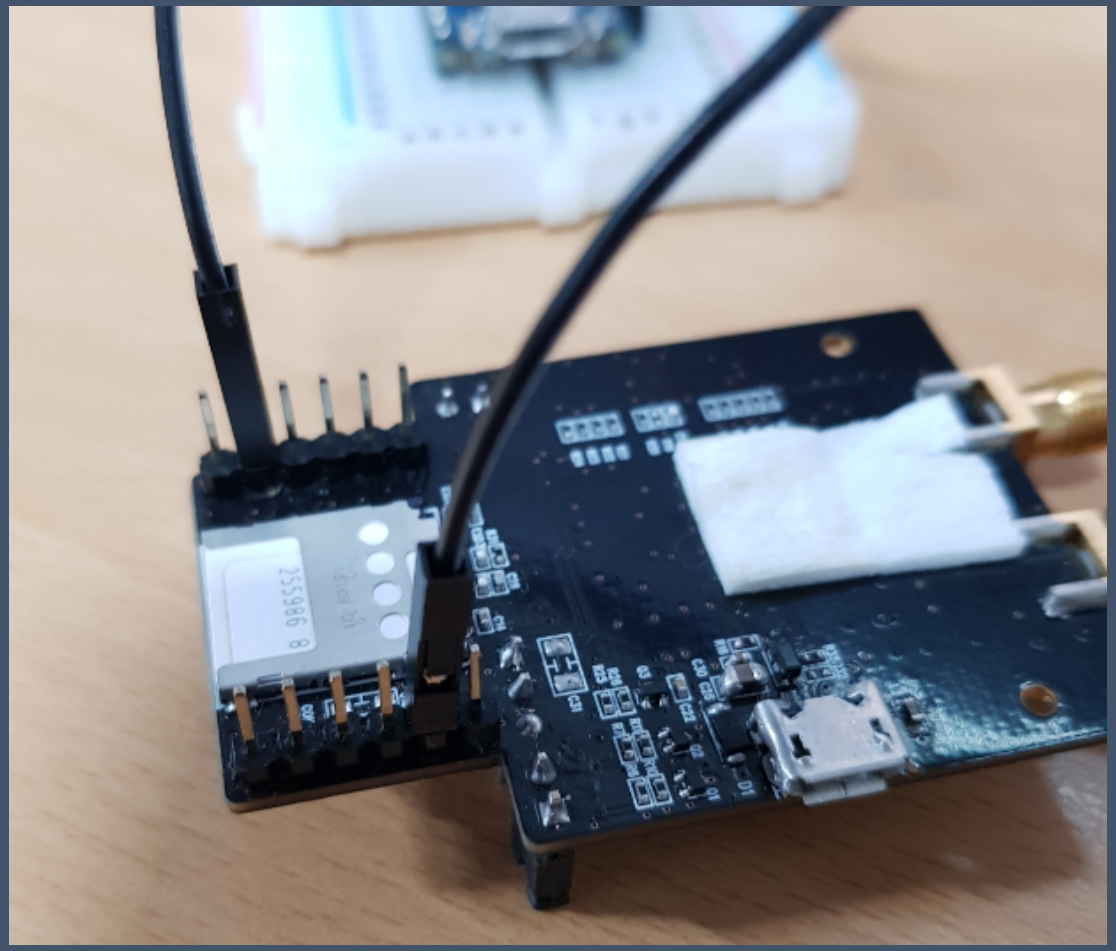
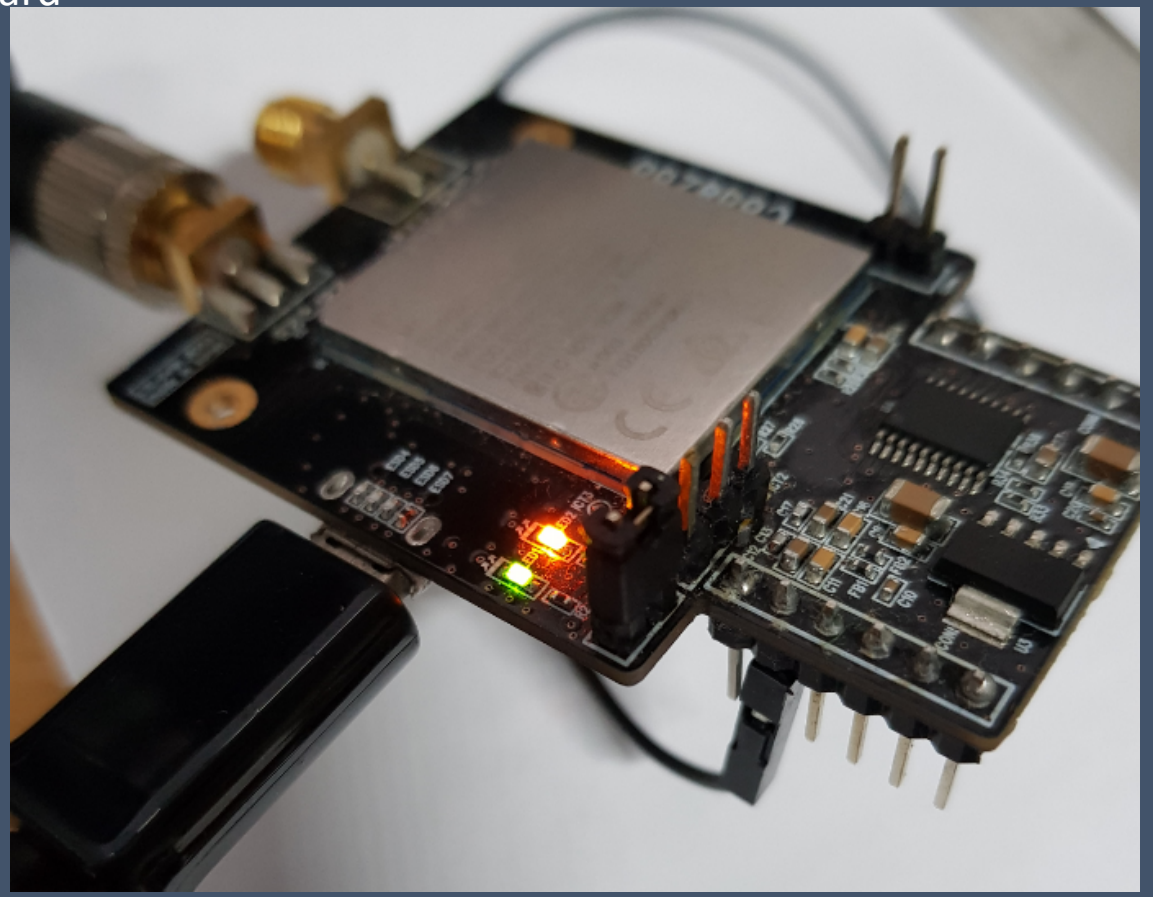
1. CAT.M1 Hardware

AT Command test procedures once it’s connected via USB

1. Connect No. 5 from left on bottom to No.2 from right on top as in the photo below
2. Connect Micro USB cable to the USB port of Jetson Nano board





2. CAT.M1 Practice (Jetson Nano Image install)

1. Introduction
https://developer.nvidia.com/embedded/learn/get-started-jetson-nano-devkit#intro

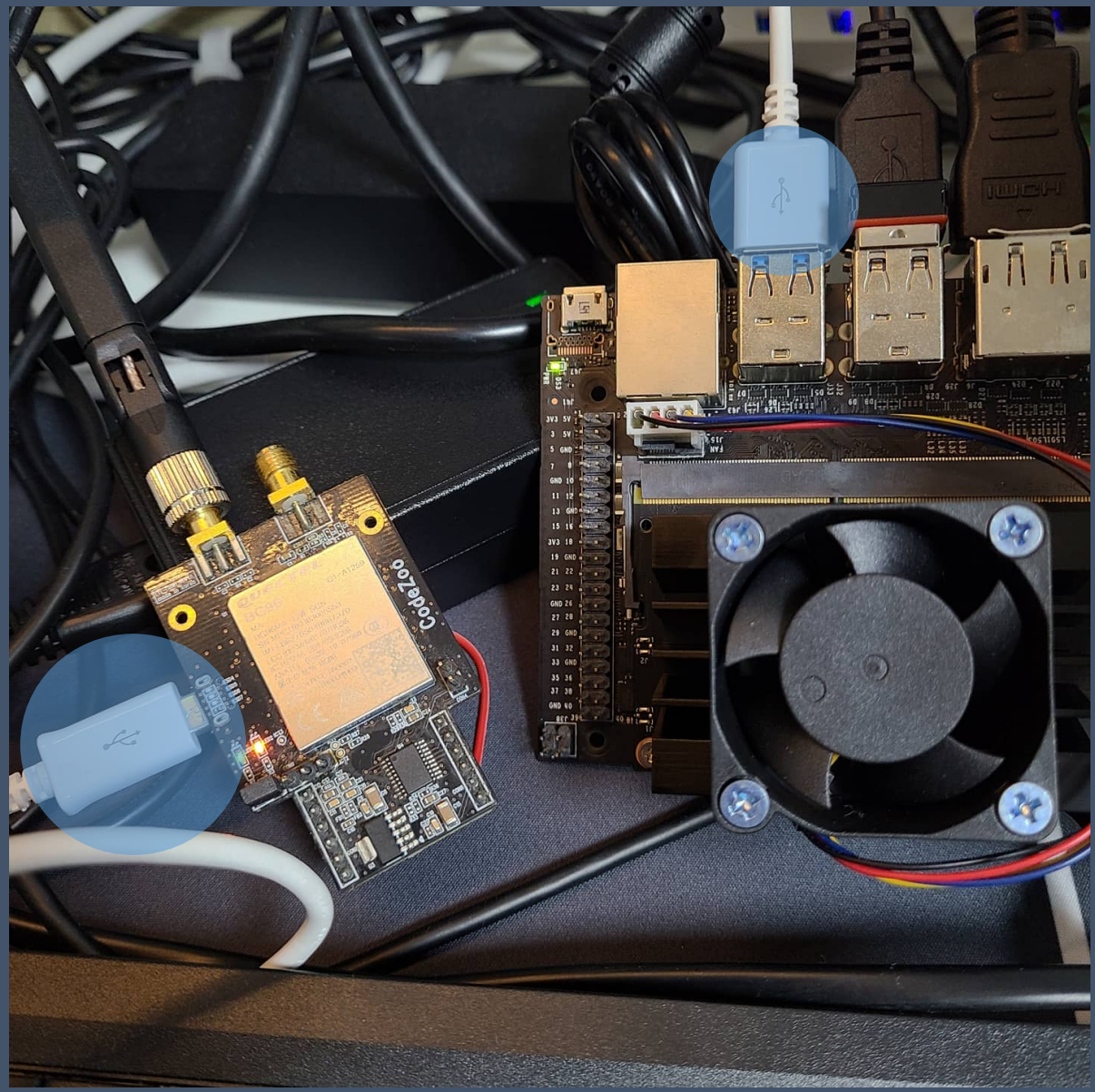
2. Prepare for Setup
https://developer.nvidia.com/embedded/learn/get-started-jetson-nano-devkit#prepare

3. Write Image to the microSD Card
https://developer.nvidia.com/embedded/learn/get-started-jetson-nano-devkit#write

4. Setup and First Boot
https://developer.nvidia.com/embedded/learn/get-started-jetson-nano-devkit#setup

3. CAT.M1 Connect

Connect Micro USB cable to the USB port of Jetson Nano board



4. CAT.M1 WvDial install

WvDial is used to connect Cat.M1 modem to Jetson Nano via PPP(Point-to-Point Propocol).

1. Install WvDial :
sudo apt-get install wvdial

2. Edit the default configuration files.
sudo nano /etc/wvdial.conf

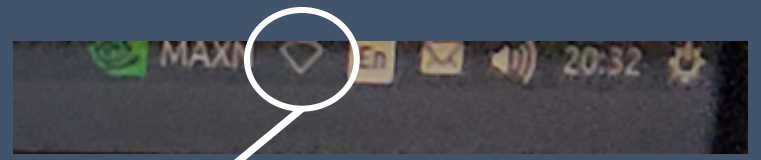
3. Reboot the system once editing is finished.

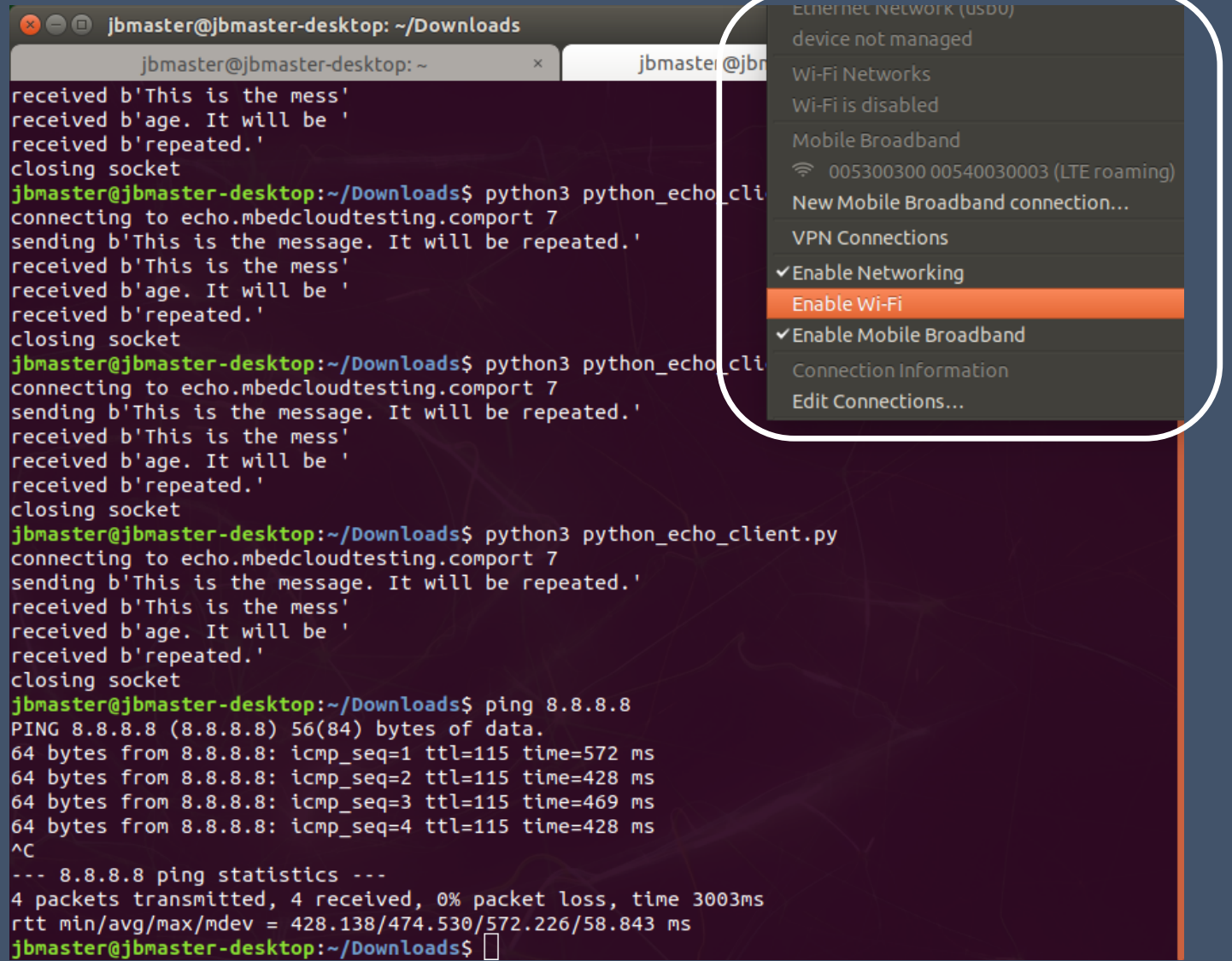
wvdial.conf

```
[Dialer Defaults]
Modem = /dev/ttyUSB3
Baud = 115200
Init1 = AT+CFUN=1
Init2 = ATZ
Init3 = AT+CGDCONT=1,"IP","internet.lte.cxn"
Phone = *99***1#
Dial Command = ATD
Username = codezoo
Password = codezoo
Auto DNS = 1
Check Def Route = 1
Carrier Check = 0
Stupid Mode = 1
Dial Attempts = 3
ISDN = 0
```

5. CAT.M1 PPP Test

Disable Jetson Nano Wi-Fi connection; click and check off ”Enable Wi-Fi”

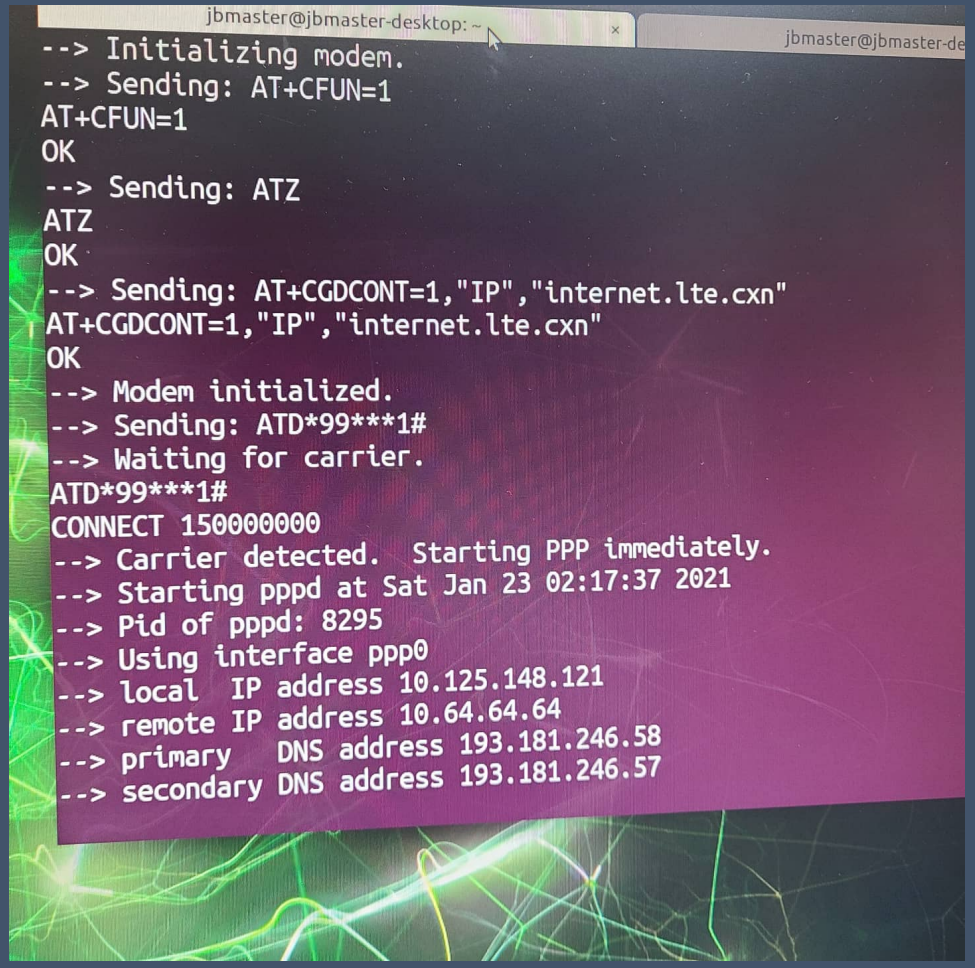




5. CAT.M1 PPP Test

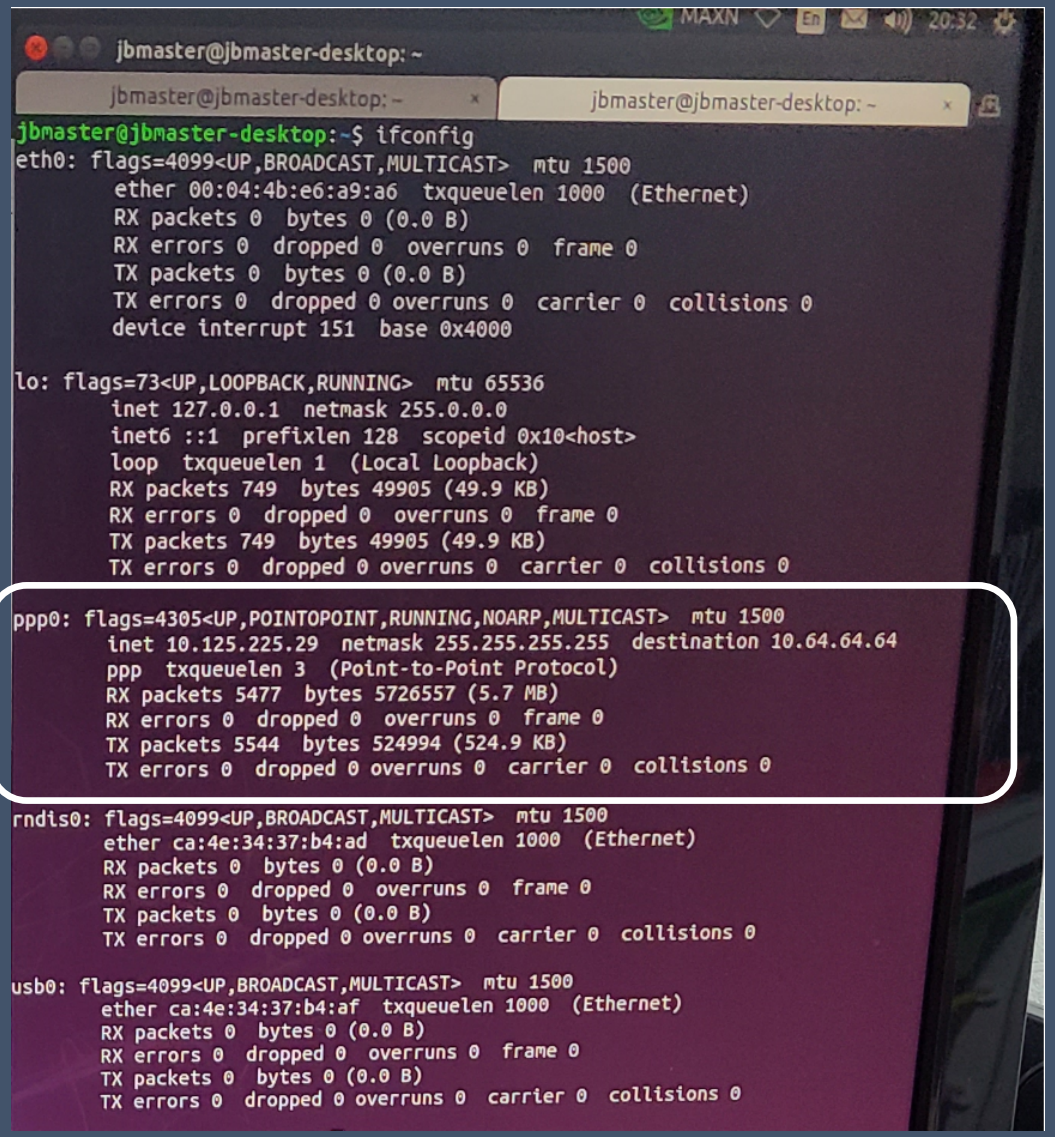
Run WvDial and check for connection.
sudo wvdial

If it’s connected, it should be showing as below.



5. CAT.M1 PPP – operability check

Run ifconfig in Jetson Nano Terminal and check PPP0 device.



5. CAT.M1 PPP – operability check

You can use Python codes to test :

python3 python_echo_client.py

```
import socket
import sys

#Create a TCP/IP socket
sock = socket.socket(socket.AF_INET, socket.SOCK_STREAM)

#Connect the socket to the port where the server is listening
server_address = ('echo.mbedcloudtesting.com',7)
print('connecting to {}port {}'.format(*server_address))
sock.connect(server_address)

try:

    #Send data
    message = b'This is the message. It will be repeated.'
    print('sending {!r}'.format(message))
    sock.sendall(message)

    #Look for the response
    amount_received = 0
    amount_expected = len(message)

    while amount_received < amount_expected:
        data = sock.recv(16)
        amount_received += len(data)
        print('received {!r}'.format(data))

finally:
    print('closing socket')
    sock.close()
```

Thank you!