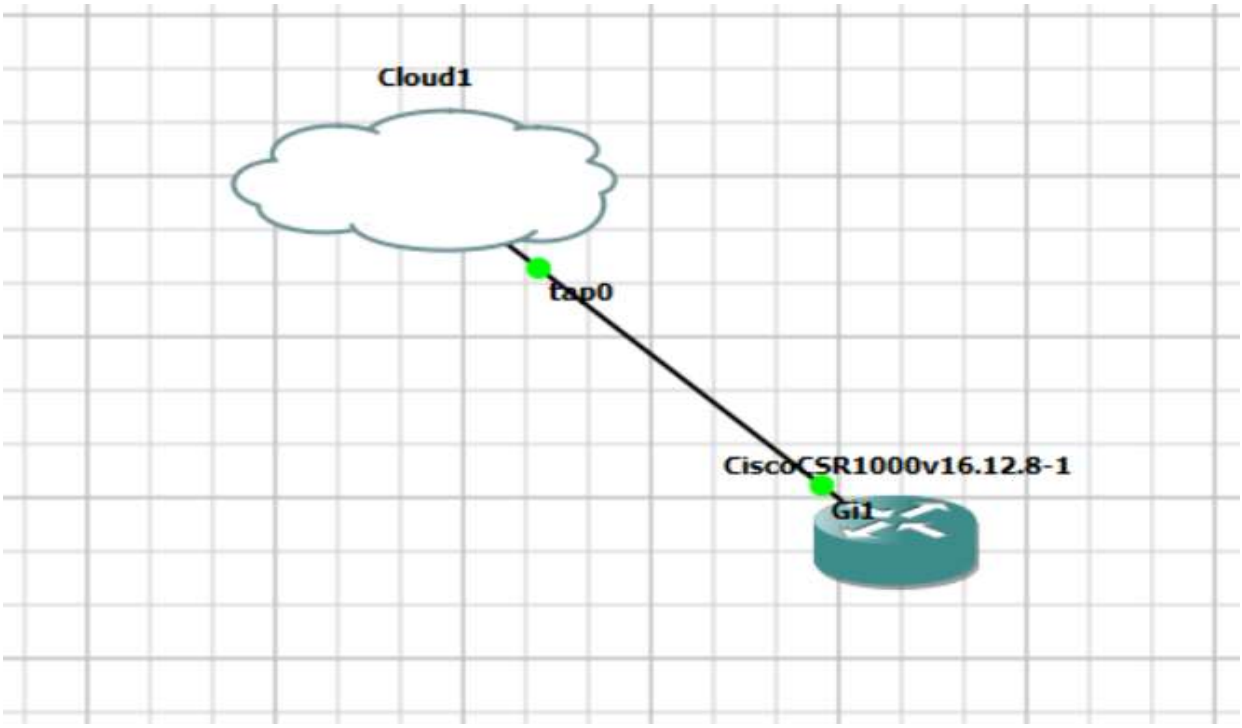
OBSERVABILITY LAB(15-07)

LAB: Enable the Telemetry configuration on Cisco Router, Telegraf will receive the stats and store in Influx DB , Grafana will be used to display the stats.

Step1 : Network Topology:



DHCP server will assign the IP address on Router:

```
g Wizard)ip int br
Interface              IP-Address      OK? Method Status                Protocol
GigabitEthernet1       172.20.0.112    YES DHCP   up                    up
GigabitEthernet2       unassigned      YES unset  down                  down
GigabitEthernet3       unassigned      YES unset  down                  down
GigabitEthernet4       unassigned      YES unset  down                  down
Router#
```

Step 2: Configure the router for Yang-Management process

user admin privilege 15 secret cisco123
aaa new-model
aaa authentication login default local
aaa authorization exec default local
Netconf-yang

Show platform software yang-management process

```
Router#sh platform software yang-management process
confd               : Running
nesd                : Running
syncfd              : Running
ncsshd              : Running
dmiauthd            : Running
nginx               : Running
ndbmand             : Running
pubd                : Running

Router#_
```

Step 3: Configure the Telemetry on router for CPU, Memory, and Interface
Login to below URL:

https://github.com/jeremycohoe/cisco-ios-xe-mdt/blob/master/cat9k-174-device-health-dashboa

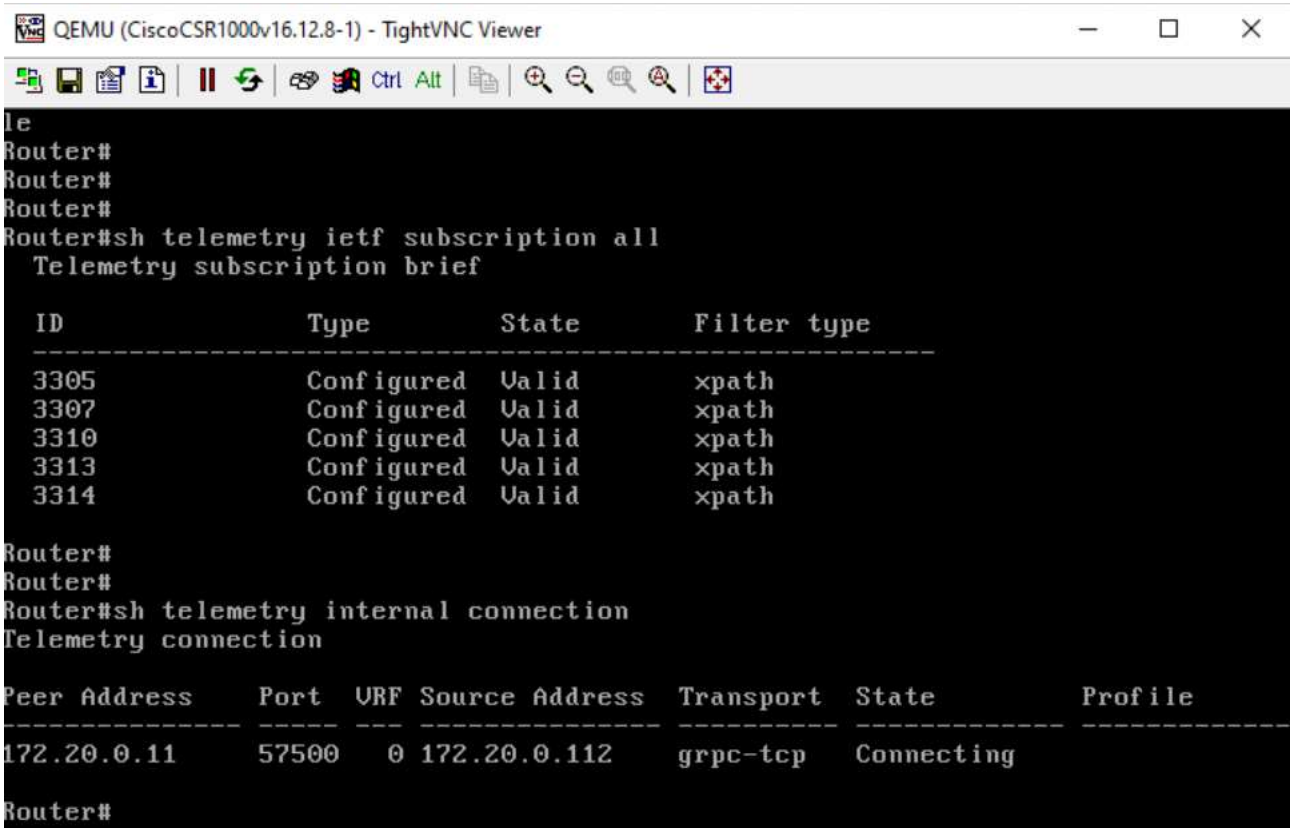
Configure the Telemetry for IETF 3305, 3307, 3310, 3313, 3314 as per the commands described on above URL

Source IP address: Ip address of router (check show ip interface br)
Receiver IP: 172.20.0.11 (Telegraf IP address)

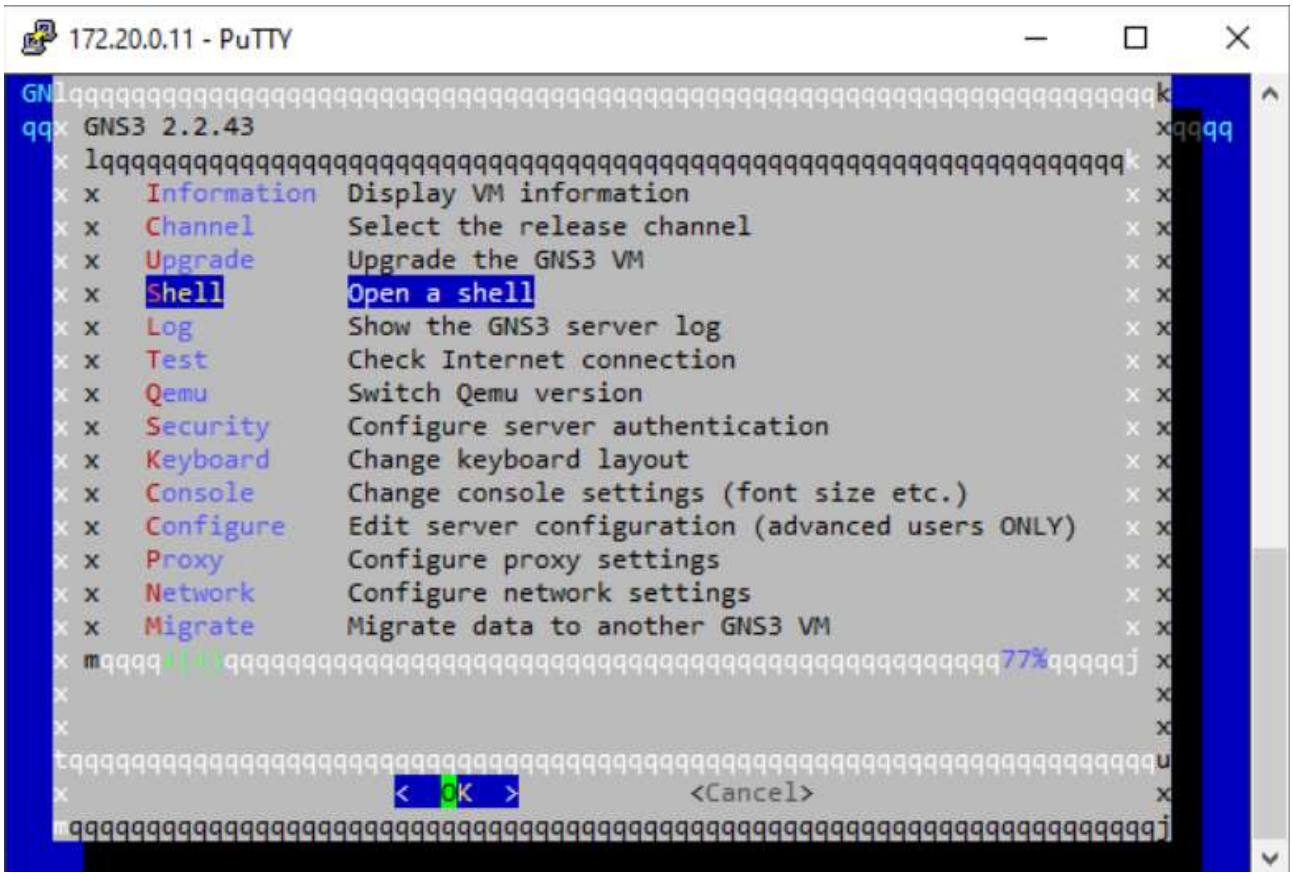
Post configuration, check the status of Telemetry on router as per below

QEMU (CiscoCSR1000v16.12.8-1) - TightVNC Viewer

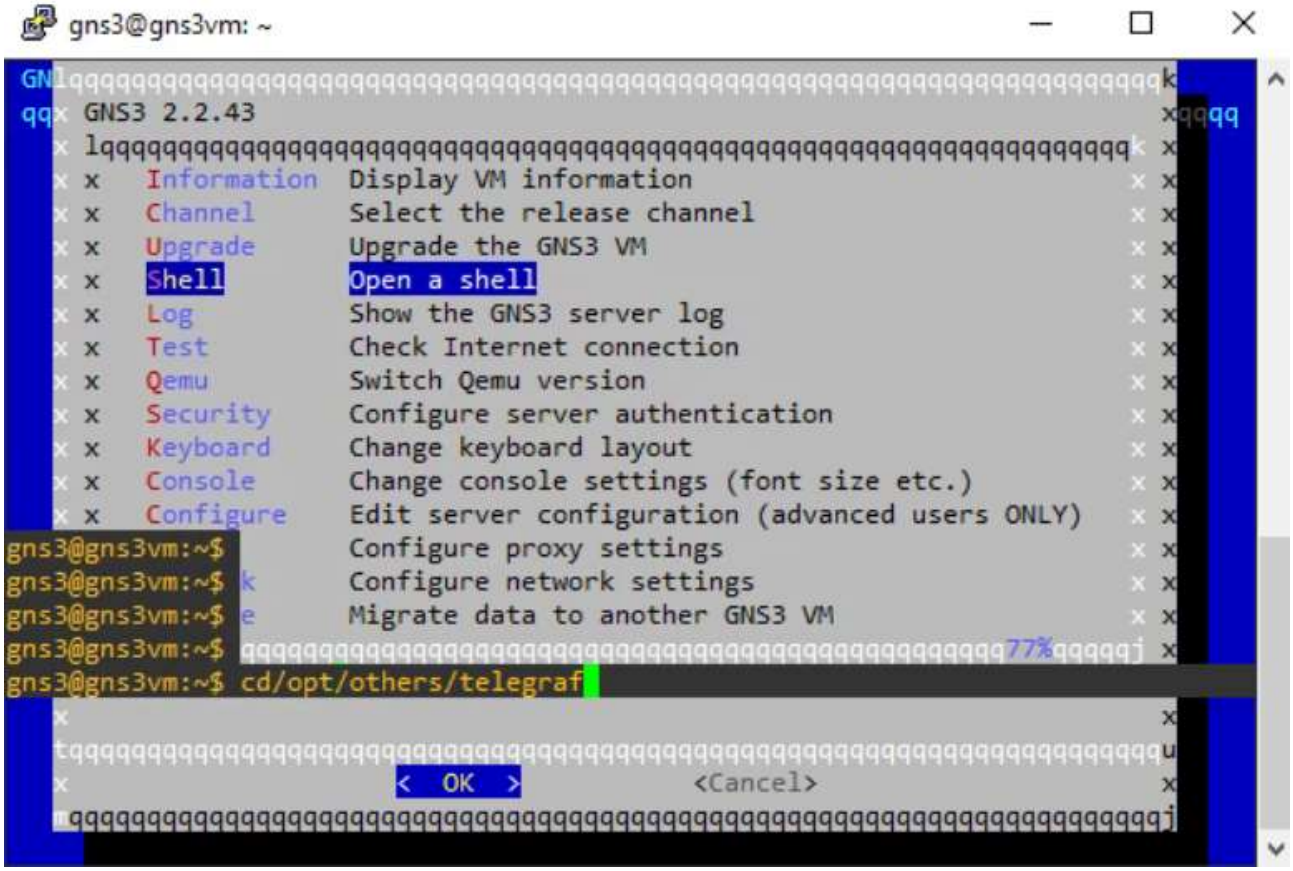
```
Router(config-mdt-subs)#exit
Router(config)#exit
Router#
*Jul 15 10:04:46.049: %SYS-5-CONFIG_I: Configured from console by admin on conso
leconf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#exit
Router#
*Jul 15 10:04:57.869: %SYS-5-CONFIG_I: Configured from console by admin on conso
le
Router#
Router#
Router#
Router#sh telemetry ietf subscription all
  Telemetry subscription brief

  ID               Type        State       Filter type
  ---------------------------------------------------------
  3305             Configured  Valid       xpath
  3307             Configured  Valid       xpath
  3310             Configured  Valid       xpath
  3313             Configured  Valid       xpath
  3314             Configured  Valid       xpath

Router#
```

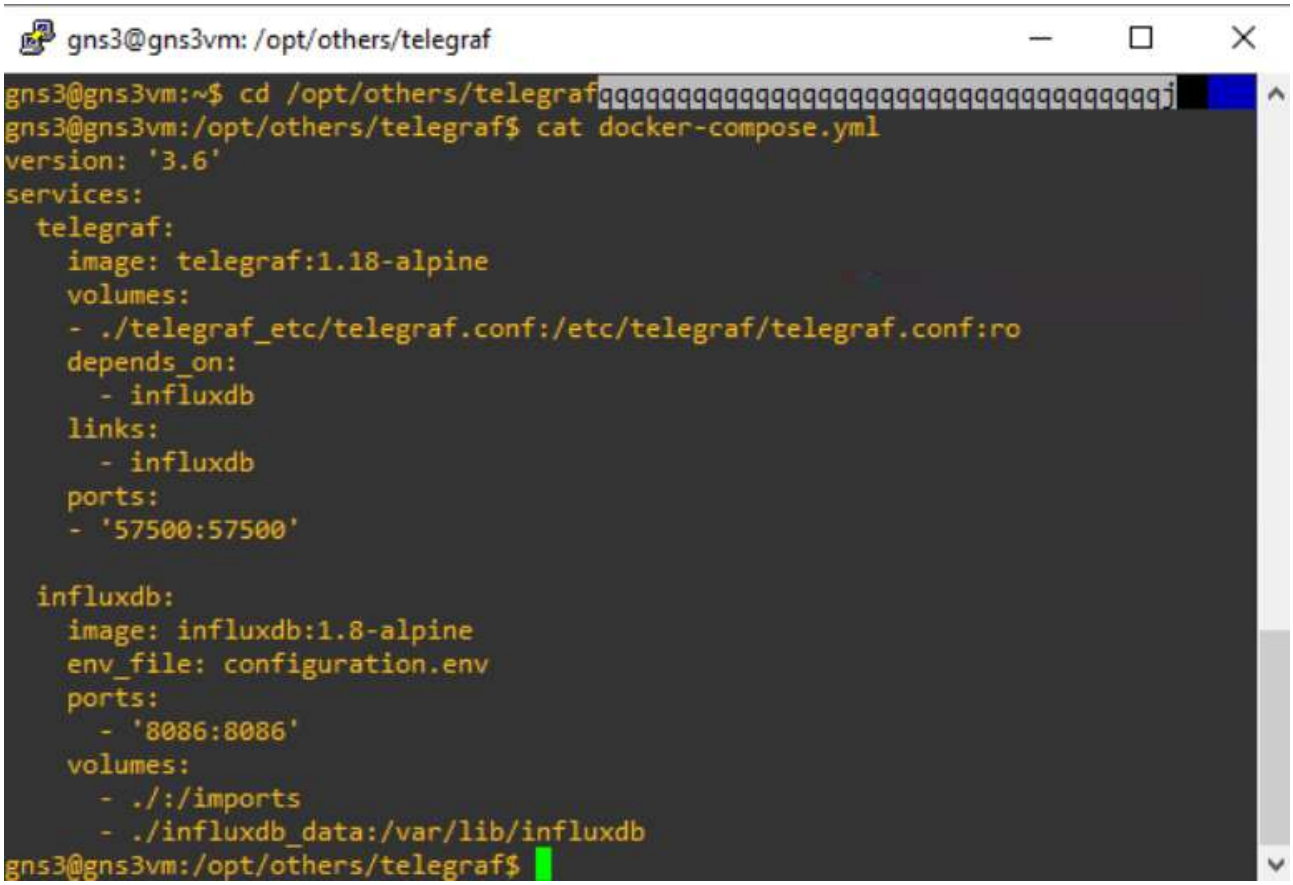


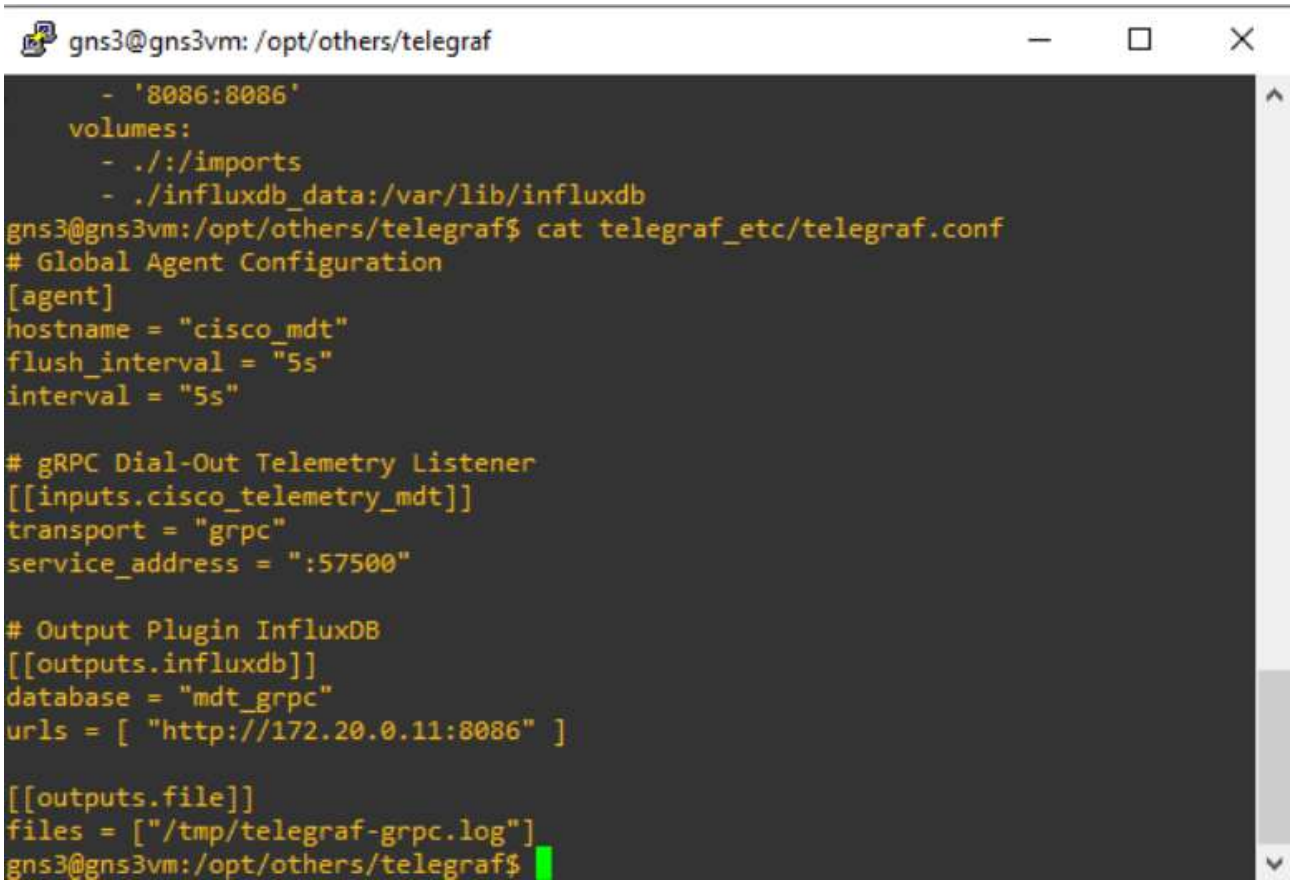
Step4: Login via putty (IP: 172.20.0.11) (user : gns3 Pass: gns3)
Go to shell prompt



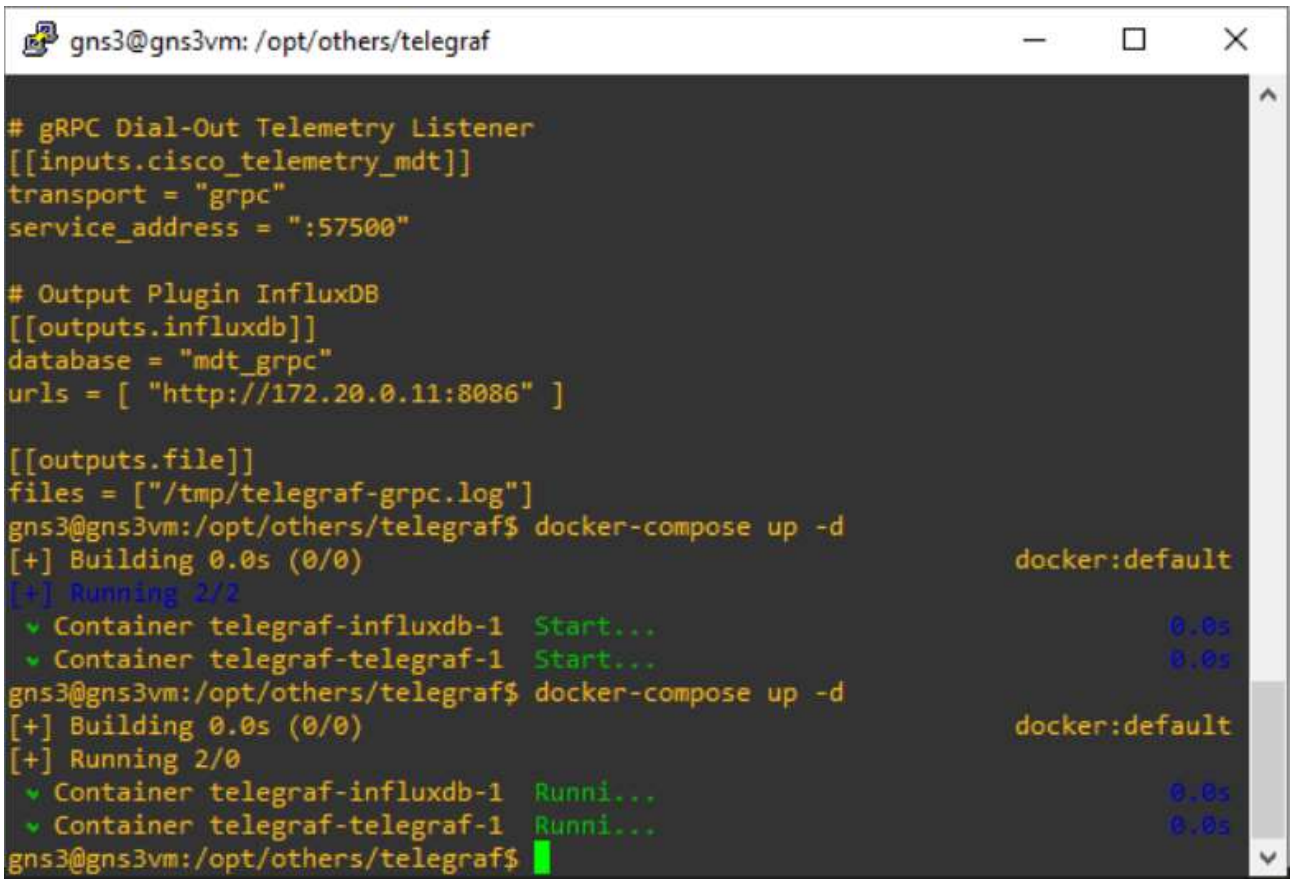
Go to path: cd /opt/others/telegraf
Check the telegraf and influxdb container configuration



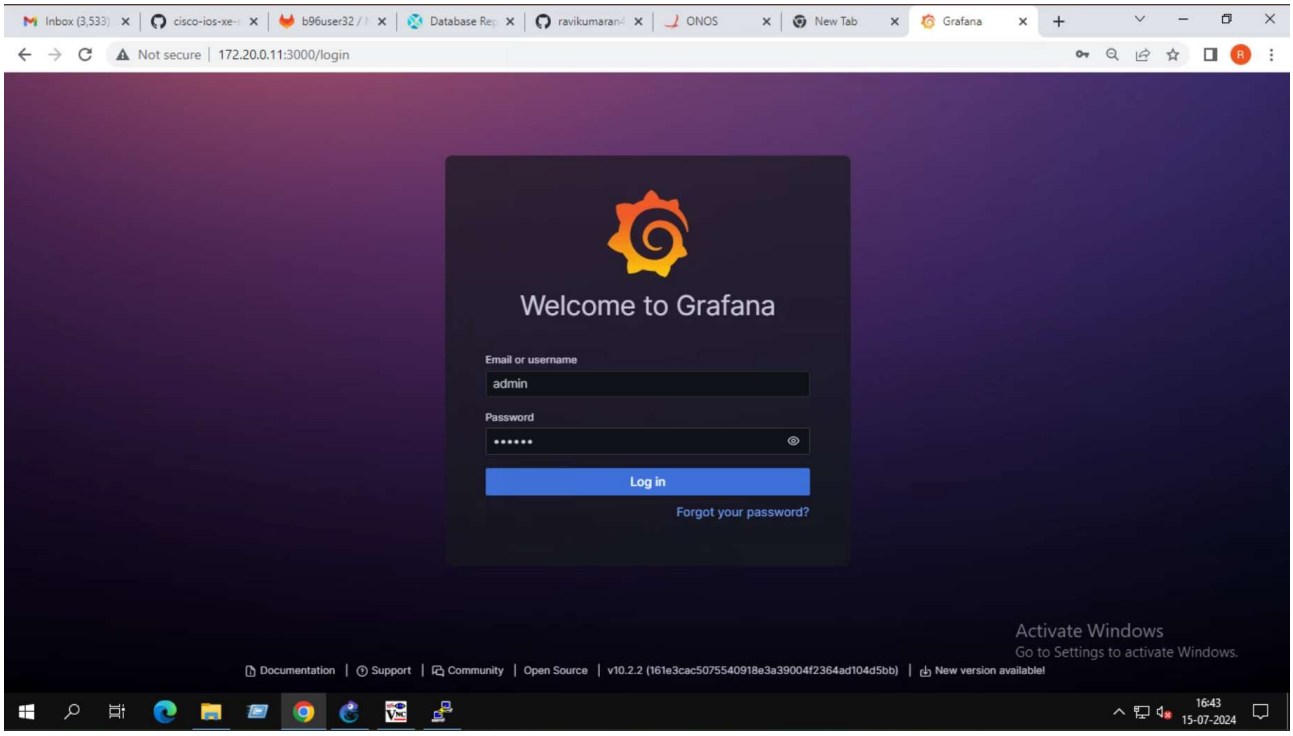




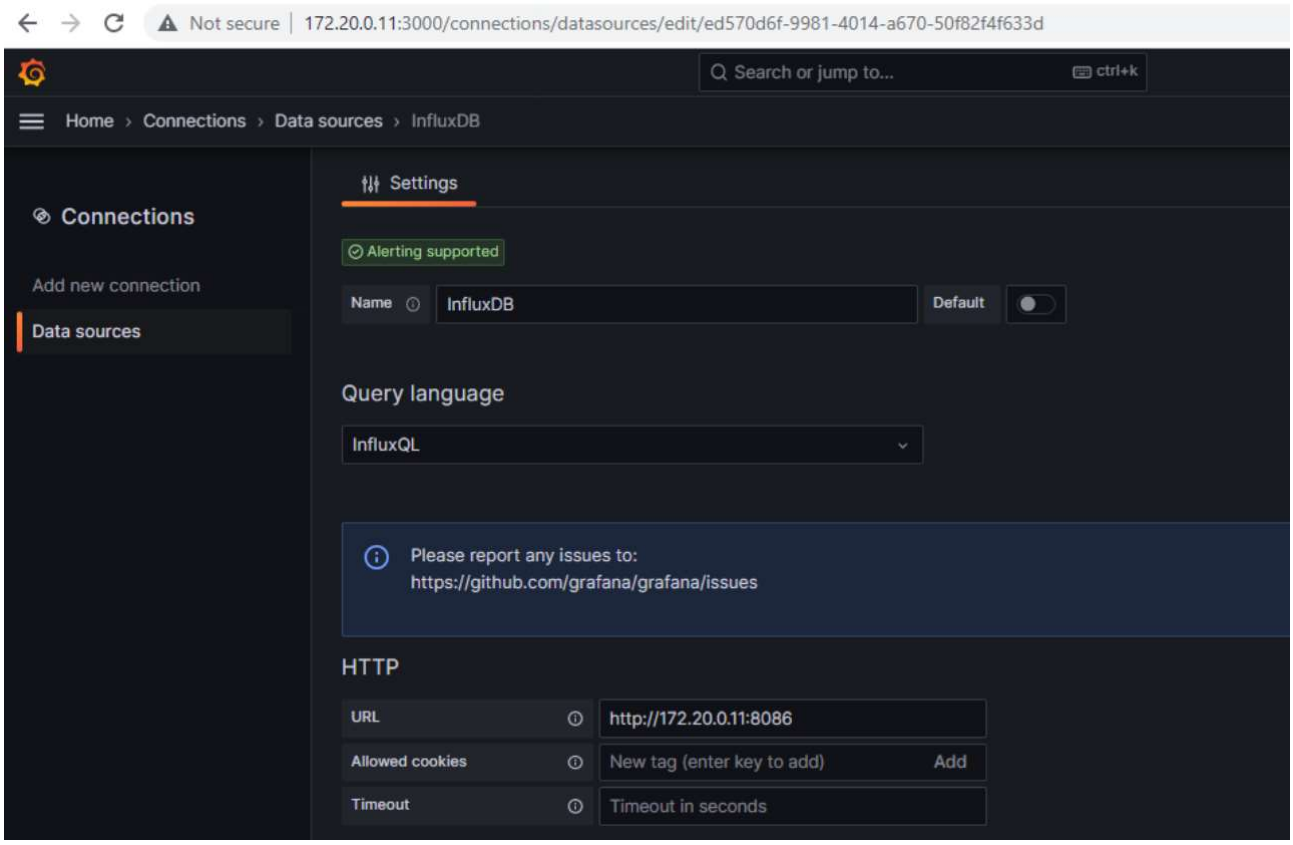
Run the container as per below
Docker-compose up -d



Step 5: Login to Grafana:
172.20.0.11:3000 (admin/mypass)

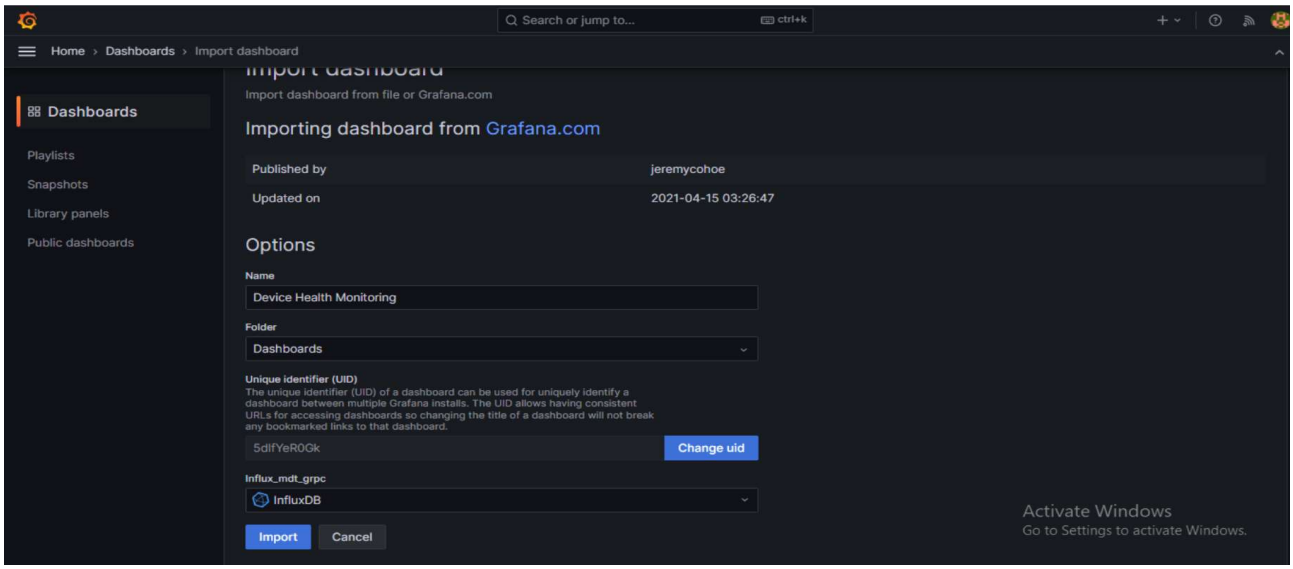


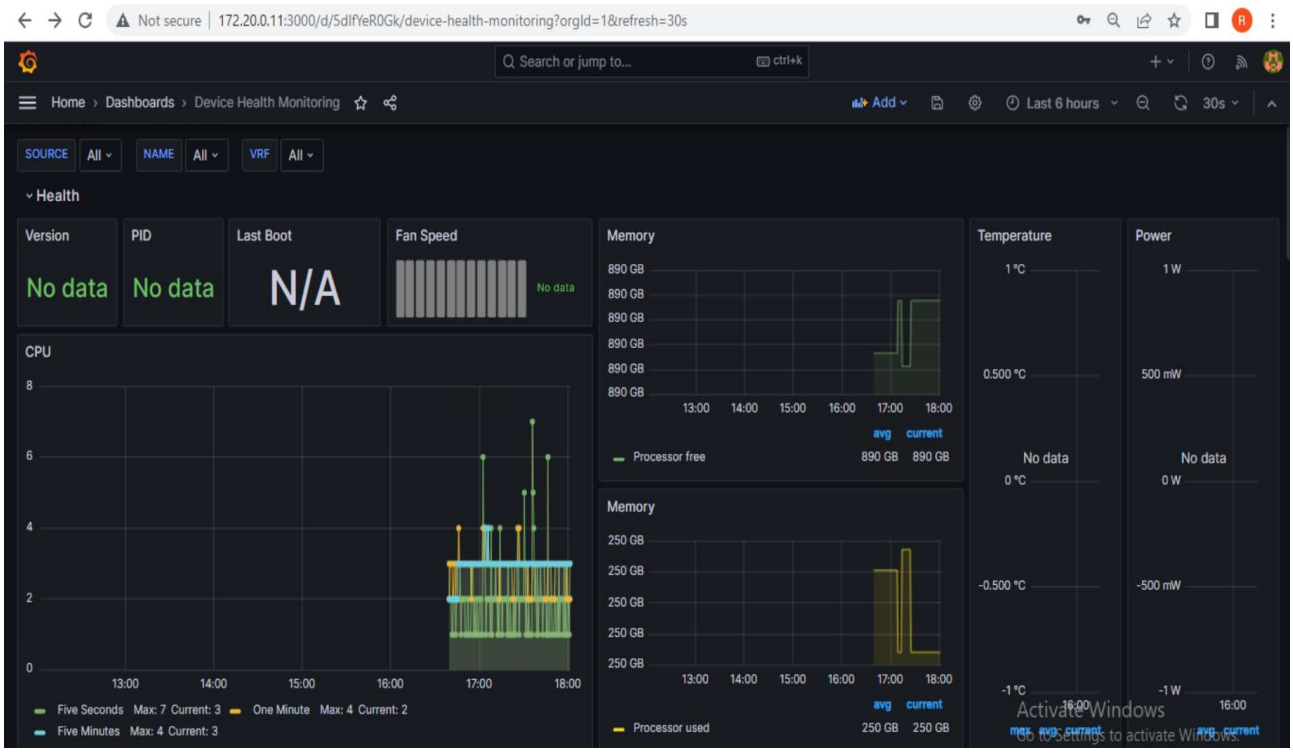
Import the InfluxDB database
Connection/ data source

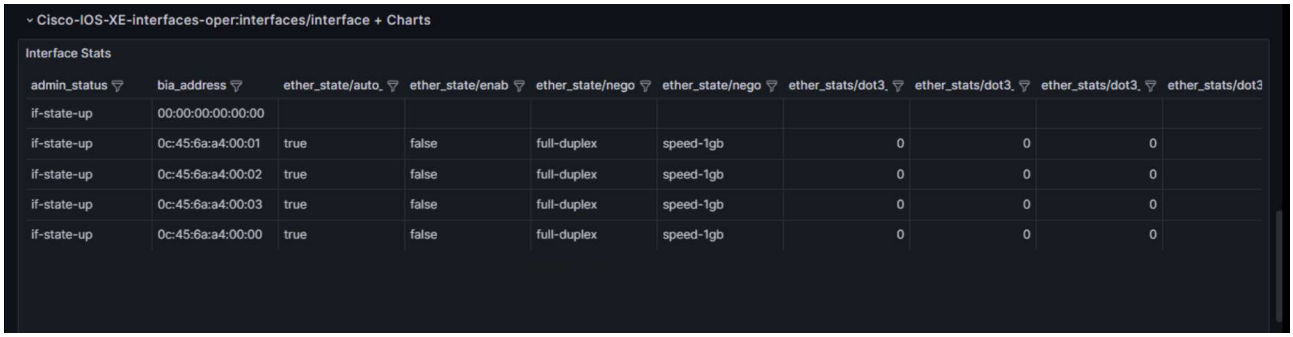


Import the Dashboard:
https://grafana.com/grafana/dashboards/13462-device-health-monitoring/

Copy to clipboard:
Go to Grafana: Dashboard/import








```
Router#sh telemetry internal connection
Telemetry connection

Peer Address     Port  VRF Source Address  Transport  State         Profile
---------------- ----- --- --------------- ---------- ------------- -------------
172.20.0.11      57500   0 172.20.0.112    grpc-tcp   Active

Router#
```