

# YANG model for management of Network Tester

- IETF116 Hackathon
- March 25-26, 2023
- Online

# The project

## Specification:

- \* [draft-ietf-bmwg-network-tester-cfg-02](#)

## Client side:

- \* Test script – rfc2544-benchmark ([Python](#))

## Device side:

- \* Software - YANG/NETCONF server instrumentation code ([C](#))
- \* Firmware - ([Verilog](#))
- \* Hardware – off-the-shelf FPGA module Ultra96 + 6x SFP+ network programmability kit shield ([KiCAD](#), [Walk-through](#))

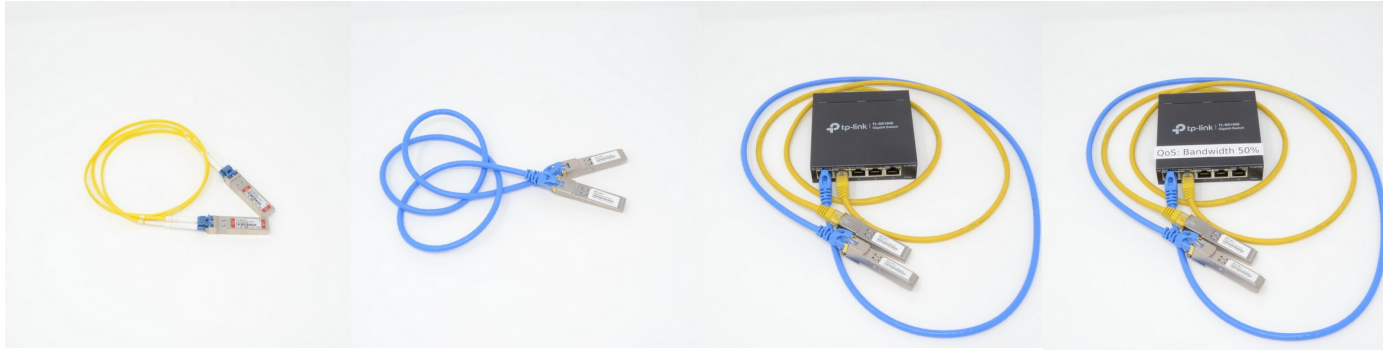
# Network testers

```
+-----+
eth0 |               | eth1
+<-|TG  tester0  TA|<-+
|   |               |   |
|   +-----+       |   |
|       +-----+   |   |
+----->| DUT |>-----+
          +-----+
```

```
+-----+
eth0 |               | eth1
+<-|TG  tester0  |x
|   |               |   |
|   +-----+       |   |
+-----+
| DUT |
+-----+
|   +-----+       |
|   |               |
+>|TA  tester1  |
|   |               |
+-----+
```



## Devices Under Test - DUTs

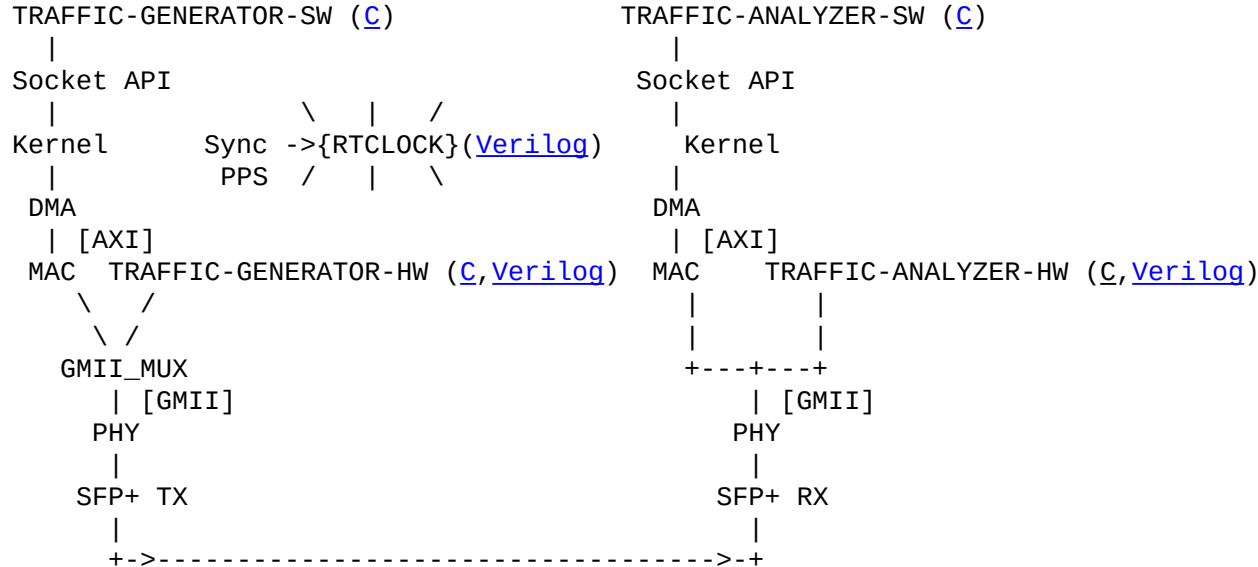


# Results

- \* DUT0 - <https://github.com/lightside-instruments/rfc2544-benchmark>
- \* DUT1 - <https://github.com/lightside-instruments/rfc2544-benchmark/tree/dut1-sfp-ge-t-1000bast-tsf>
- \* DUT2 - <https://github.com/lightside-instruments/rfc2544-benchmark/tree/dut2-tl-sg105e>
- \* DUT3 - <https://github.com/lightside-instruments/rfc2544-benchmark/tree/dut3-tl-sg105e-qos-50-percent-bandwidth>

# Design and implementation

NETCONF Server (Model ([YANG](#)), Implementation Generator module ([C](#)), Analyzer module ([C](#)))

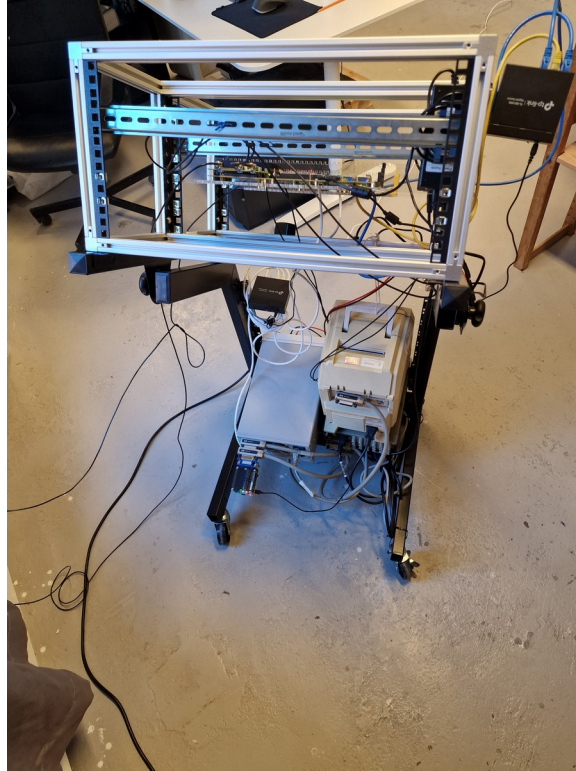


\* - underlined text has links to repositories

## Mobile lab with DUT – front



## Mobile lab with DUT – back





# The End