A YANG Data Model for Network Interconnect Tester Management

draft-vassilev-bmwg-network-interconnect-tester-02

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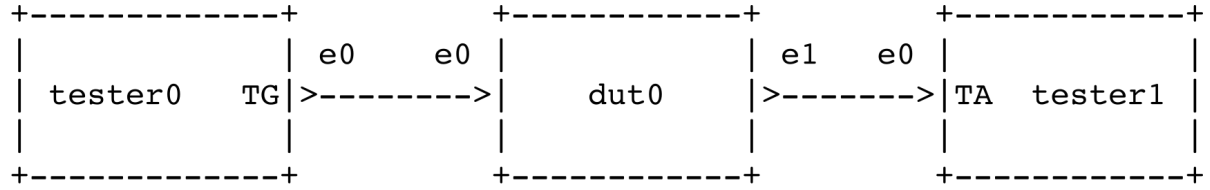
What is not available in interconnect testers today?

* Standard interface
* Multivendor Interoperability
* Transactional SDN
* Single global configuration using <copy-config>

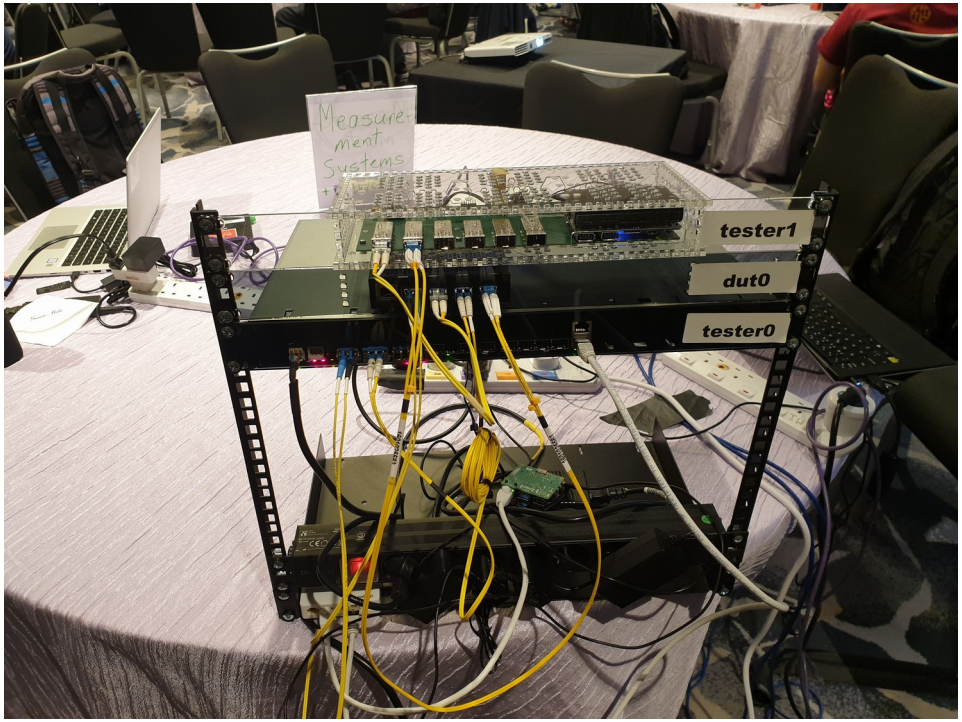
Hackathon Plan

* Implement RFC2544 test using YANG/NETCONF managed Network Interconnect tester (draft):



$ python run-rfc2544.py config.xml | tee result.xml

Results



Results

Usage:
set-net config-1.xml
python ./test-rfc2544-throughput.py --config=config-1.xml \
--frame-size=64 --interframe-gap=$((9*1024)) --tx-node=tester0 \
--tx-node-port=xe0 --rx-node=tester1 --rx-node-port=xe0 \
--src-mac-address="00:00:00:00:00:00" --dst-mac-address="00:00:00:00:00:01"

Results

...
Transaction 5 started: 2019-11-19T02:30:26
Transaction 5 completed: 2019-11-19T02:30:26
Test time: 60
Generated packets: 8089051
Lost packets: 291328
Lost packets percent: 3.601510
Sequence errors: 19347
Sequence errors percent: 0.239175
Latency Min[nanoseconds]: 12180
Latency Max[nanoseconds]: 10030374

Wrap Up

References:

* https://yuma123.org/wiki/index.php/IETF_106_Hackathon
* https://github.com/vlvassilev/litenc/blob/master/tntapi/example/ietf-network-interconnect-tester/test-rfc2544-throughput.py