

# Bench Marking of EVPN/PBB-EVPN

draft-kishjac-bmwg-evpntest-05.txt

By

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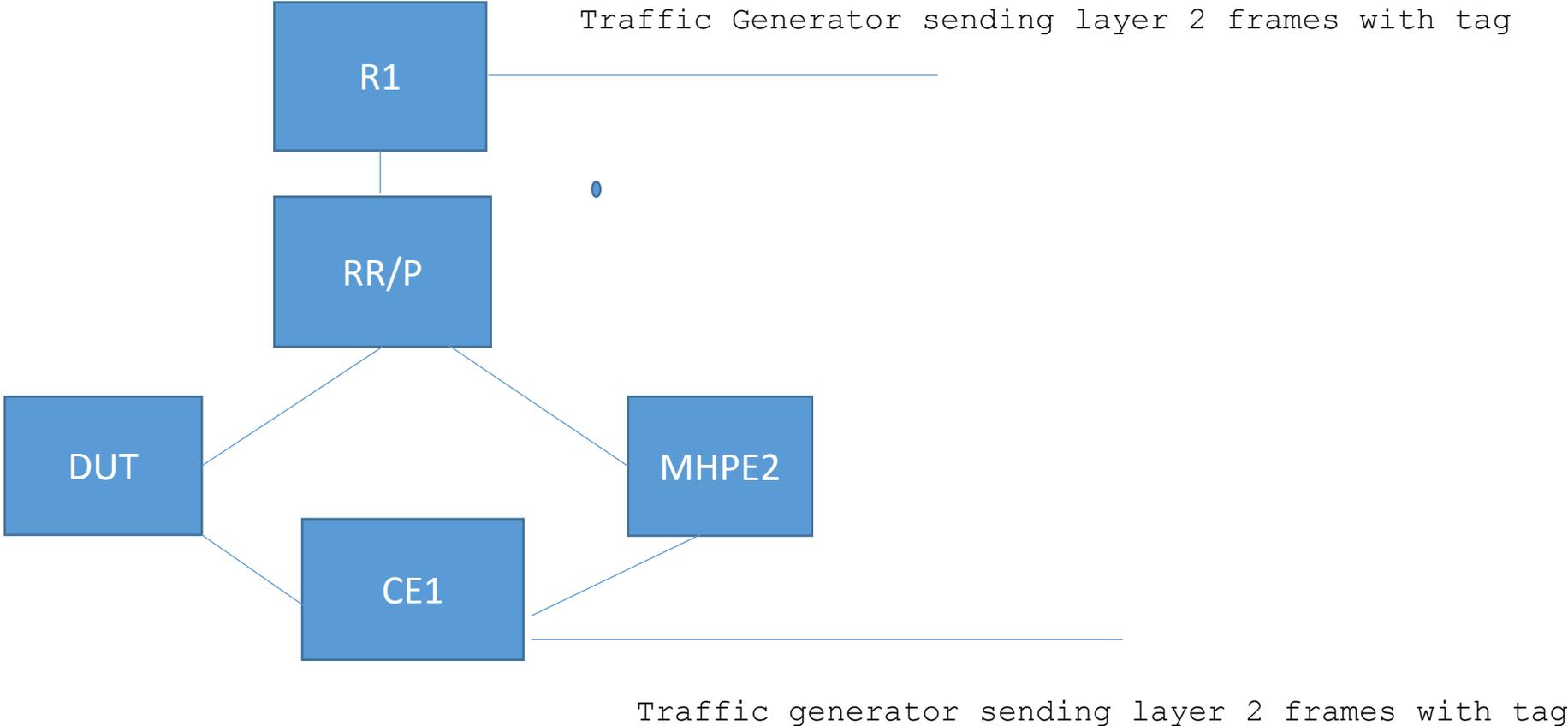
# What is EVPN

- EVPN is defined in RFC 7432.
- The dual home PE's simultaneously forward traffic compared to VPLS.
- Has load balancing capability.

# Comments from IETF-97

- ARP/ND scaling
- MAC counting must not depend on CLI output.
- High Availability must be recorded as 0 packet loss in Ideal Case.

# Topology



# Benchmarking Parameters of EVPN

- Mac learning
- Mac Flush
- Mac ageing
- HA
- ARP/ND Scaling
- Scale
- Convergence
- Soak

# Measurement – Mac learning

- Measure time taken to learn local mac.
- Measure the time taken to advertise to remote peer.
- Measure the time taken to learn mac routes from remote peer.
- Measure the time taken to learn both local and remote in bi directional traffic flow.

# Measurement – Mac Ageing

- Measure the time taken to age out the mac once traffic stop locally.
- Measure the time taken to age out mac learned from remote peer once the traffic stops at remote end.

# Measurement – Mac flush

- Measure the time taken to flush the local mac entries during local link failure.
- Measure the time taken to flush remote mac entries in DUT during remote PE-CE link failure.

# ARP/ND Scaling

- This is to test the maximum number of mac+ip learned.
- Sending “X” arp messages to the DUT where default gateway configured from RT. It must learn “X” mac and ip addresses of the sources which send “X” mac+ip routes to remote peer.

# Measurement HA– Routing Engine Failover

- Measure the traffic loss during the HA mode routing engine failover, ideally there should be 0 packet loss.

# Measurement- Scale

- N EVI with mac scale of X macs. Learning of all X mac , measure the time taken to learn this  $x/2$  mac locally and  $x/2$  remotely.

# Measurement Convergence

- Measuring the scale of N EVI with mac scale of X. Learning of all X mac , after that simulate core failure or bgp flap. measure the time taken to learn X from remote peer by DUT measure the time period of flood in core towards DUT from remote peer.

# Measurement SOAK

- Measuring the scale of N EVI with mac scale of X. Run this for 24 hr. The DUT should not have any cores or memory leak.

# Next Steps

- Draft Must be reviewed.
- Requesting the chair for adoption.

Thank you