

Benchmarking for CoPP

draft-shishio-bmwg-copp-00

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RFC6192 CoPP

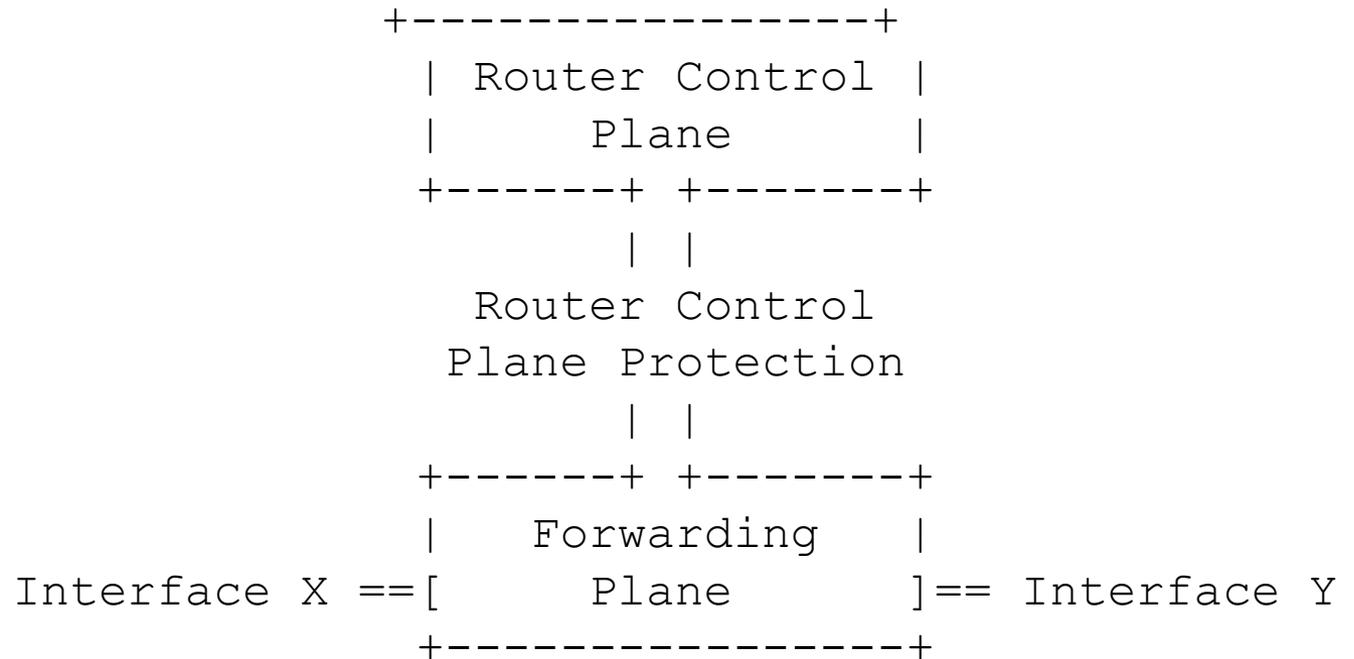
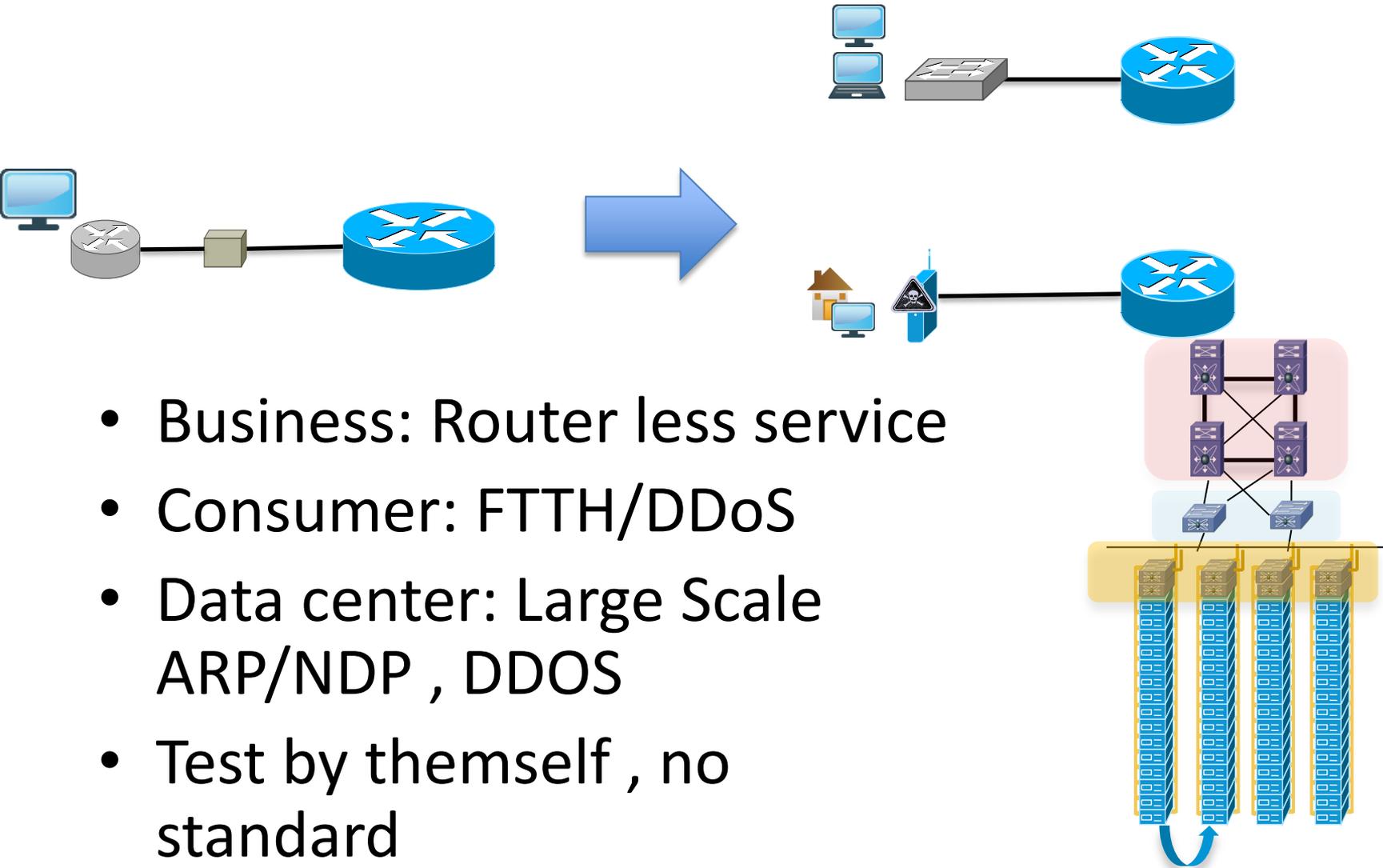


Figure 1: Router Control Plane Protection

- Control Plane Protection
- Protect router's control plane from undesired or malicious traffic.

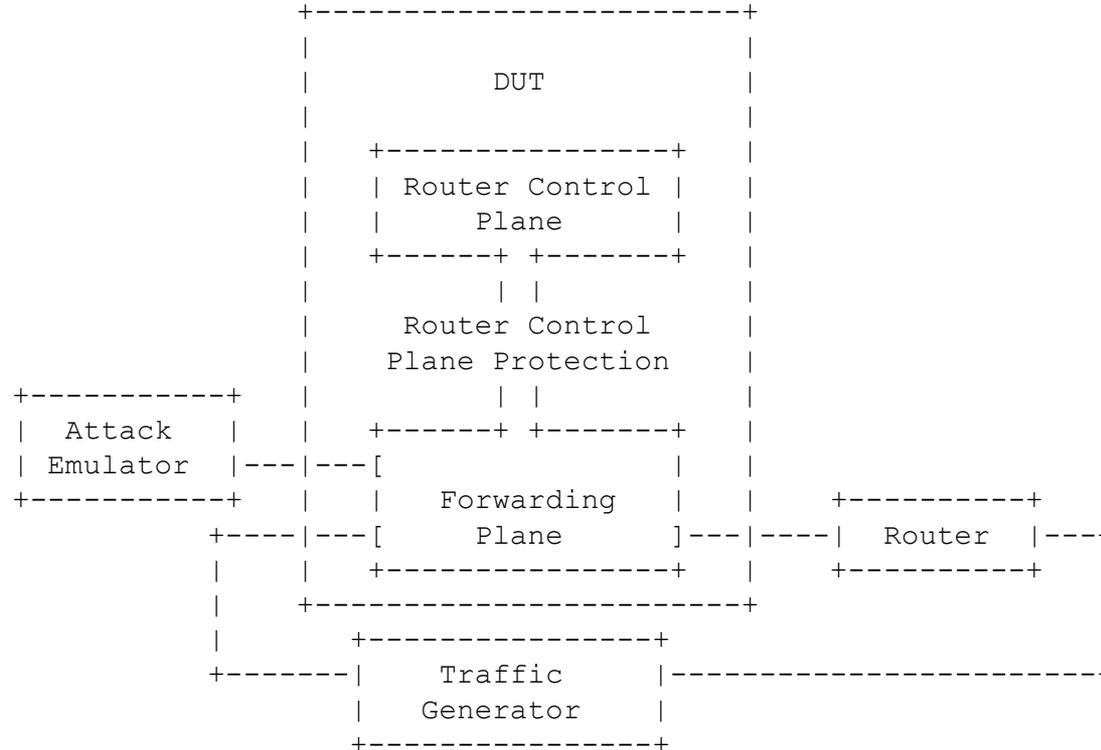
Background



- Business: Router less service
- Consumer: FTTH/DDoS
- Data center: Large Scale ARP/NDP , DDOS
- Test by themself , no standard

2. Test setup

2.1. Topology



- DUT connect to Router/Attack Emulator/Traffic Generator

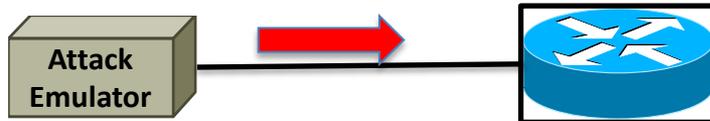
2.2. Network



- Configure IGP/OSPS between DUT and Router
- DUT configure CoPP if needed

3. Test procedure

3.1. Attack Packet



- Attack Emulator : send packets to DUT to confirm influence of CoPP
- Test duration time should be greater than hold time between UUT and Router

Attack Packet

	example	expect action
Typical	fragment/ip option/ ICMP ttl exceed	drop/rate-limit
Routing Protocol from trust network	BGP/OSPF	accept but rate-limit would be preferred
Routing Protocol from untrust network	BGP/OSPF	drop
Control Packet from trust network	ARP/NDP/ICMP/ICMPv6	accept but rate-limit would be preferred
Control Packet from un- trust network	ARP/NDP/ICMP/ICMPv6	drop/rate-limit
Management Packet from trust network	NTP/SSH/Telnet/Radius/D NS/DHCP	accept/rate-limit
Management Packet from un-trust network	NTP/SSH/Telnet/Radius/D NS/DHCP	drop
undefined packets	IPX/Appletalk	drop

Will update in detail in future version

Test result

Attack	Attack rate[pps/bps]	Attack duration time	Loss of packets on traffic generator
-	-	-	-

CPU Utilization of DUT will be added

Ask to WG

- Is the draft useful for the WG?
- Any idea of the scenario
 - test procedure
 - confirmation of stability