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Sub: List of Optical Line terminal (OLT) protocols which are to be subjected to fuz testing

1. The clause 9.1 of "Optical Line terminal (OLT) - PON family Broadband Equipment" ITSAR reads as follows:

   "9.1 Fuzzing – Network and Application Level

   Requirement:

   It shall be ensured that externally reachable services of OLT are reasonably robust when receiving unexpected input.

2. As per clause 3.6 of ITSAR, "OLT shall only run protocol handlers and services which are needed for its operation, and which do not have any known security vulnerabilities. By default, all other ports and services will be permanently disabled. OLT shall not support following services. Any other protocols, services that are vulnerable are also to be permanently disabled."

   FTP, TFTP, Telnet, SNMP V2, LLDP/CDP, HTTP, SSH V1

   Hence, no fuzzing test is required for these protocols

3. Based on the inputs received from different stakeholders during the interactions with them, till further orders, the list of protocols along with suggested suitable fuz test are as detailed below.

S NO	Name of the protocol	Suggested method of fuz testing
1	IGMP/MLD	Mutation based Fuzzing
2	IPv4	Mutation based Fuzzing
3	IPv6	Mutation based Fuzzing
4	IPv6ND	Mutation based Fuzzing
5	DHCP	Generation based Fuzzing
6	ARP	Mutation based Fuzzing
7	DNS	Generation based Fuzzing
8	ICMP/ICMPv6	Generation based Fuzzing
9	UDP	Mutation based Fuzzing
10	HTTPS	Mutation based Fuzzing
11	SNMP V3 and above	Generation based Fuzzing
12	NETCONF	Mutation based Fuzzing
13	SSH V2 and above	Generation based Fuzzing
14	NTP	Mutation based Fuzzing

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