VOLTHA BBSim (Broadband Simulator)

Overview
The BBSim (Broadband Simulator) is a software emulator for the control message response (e.g. OLTInd, DHCP, EAPOL, OpenOMCI messages etc..) sent from OLT and ONUs which are connected to VOLTHA OpenOLT Adapter. You can use BBSim container for a scalability test for VOLTHA, DHCP L2 relay (https://github.com/opencord/dhcpl2relay) and AAA (AAA (ONOS 1.10)#ActivateAAAapp) applications on ONOS.

Fig. 1OLT/16ONUs emulated by BBSim

Architecture
BBSim container has OMCI/EAPOL/DHCP client responders inside for emulating those control messages. Please note that DHCP Server runs beside BBSim main process for DHCP L2 relay emulation (If you want to test DHCP L2 relay App in the case where DHCP server runs beside AGG Switch, you don't need to use this server).
How to use BBSim

Refer to GitHub (https://github.com/opencord/voltha-bbsim)

BBSim Roadmap

This is a collection of feature requests, not necessarily in priority order. We invite the community to add to this list:

1. Ensure BBSim can scale up to 1 PON Port and 64 ONUs and perform activation/eapol/dhcp control plane functionality
2. BBSim needs to deal with tech profile changes in order to work with VOLTHA 1.x master
3. Add features like ONU Enable/disable, OLT enable/disable/delete etc
4. Add features like ONU or OLT reboot
5. Add features like alarm support
6. Add data plane (ping) support via BBSim NNI port as an option for functional testing (not scale testing)