

Project: White Label Switches

Organisation	University of Amsterdam
Deliverable	Report

White label switches provide enhanced networking operation by allowing the network engineers to install the network operating systems (NOS) of their choice.

We will look at the possibilities offered when running ONL – Open Networking Linux distribution from the OpenCompute project. Once ONL is installed there are a number of forwarding agents and protocol implementations available. We will focus on the open source ones:

- FlexSwitch from SnapRoute (<https://snaproute.com/>)
- Open Route Cache (ORC) supporting software:
 - Quagga (<https://www.opensourcerouting.org/>)
 - BIRD (<http://bird.network.cz/>)
- XORP (<http://www.xorp.org/>)
- Azure SONiC (<http://azure.github.io/SONiC/>).

We are interested in evaluating:

- General performance characteristics of the various protocols that are implemented.
- Interoperability between the different network stack implementations

To perform this research we see the possibility to use the Dell 4048-ON at the OpenLab and any comparable devices present at SURFnet. We will connect the UvA devices with the ones in the SURFnet testbed.