Extended Dijkstra's based Load Balancing OpenFlow network

Configuration :

OpenVSwitch Configuration Steps:

Do not give any IP address on any interface of the GENI system and run the following commands to make it a OpenVSwitch:
>>sudo apt-get update
>>sudo apt-get install openvswitch-switch
>>sudo apt-get install openvswitch-common
>>sudo apt-get install openvswitch-controller

Now create a bridge and add all the ports to the switch:
>>ovs-vsctl add-br <bridge_name>
>>ovs-vsctl add-port <bridge_name> <port_no>

Set controller for the switch using the following command
>>ovs-vsctl set-controller <bridge_name> tcp:<controller_ip>:6633

Controller (RYU) Configuration Steps:

Controller will contact the switches through management IP
>>apt-get install python-dev
>>pip install -U pip setuptools
>>hash -r
>>time sudo apt-get install python-eventlet python-routes python-webob >>python-paramiko
>>pip install ryu
>>pip install tinyrpc
>>git clone git://github.com/osrg/ryu.git
>>ryu-manager <program_file>

Controller starts running and it can start serving the requests from switches coming on the management IP of GENI.

#To run Extended Dijkstra's Algorithm

>>ryu-manager extended_dijkstra.py

To run Base Case 1 : Unit weighted Dijkstra's algorithm
>>ryu-manager unit_weighted.py

To run Base Case 2: Round-Robin Algorithm
>>ryu-manager round_robin.py