This document is a user’s manual document of an SDN OpenFlow controller based on already development OSS project trema-edge (<http://github.com/trema-edge.git>).

SDN(Software Defined Networking define an abstract model of controlling network devices that are either hosts or switches connected together to form a controlled network.

Switch is a device and in our case a software device with ports and tables. Hosts connected to ports and transmit packets to ports. Packets arrived at switch are indexed against a table. A table consists of a classifier and a set actions. A controller sitting above governs and controls the actions. The diagram below depicts this basic idea.

Controller

host3

host1

host2

host4

This project aims to demonstrate an OpenFlow controller capable of assigning bandwidth from edge to core switches in a fair-share manner. In a sense it enforces traffic entering the core switches. We name this project bandwidth enforcer traffic steering.

When a packet enters the