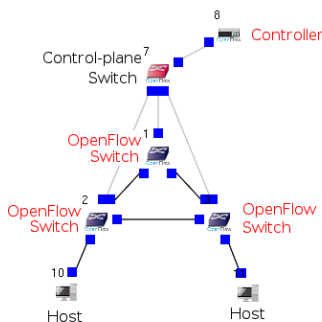


## SDN – OpenFlow Switch

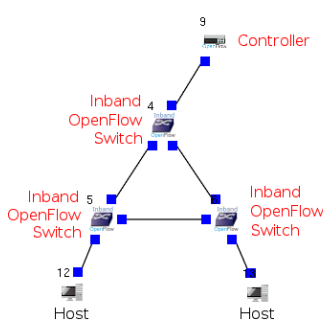
### Graphical User Interface

### Functional Description

#### Out-of-band Control Plane



#### In-band Control Plane



#### Virtual OpenFlow Switch

- OpenFlow v1.3
  - Controller-to-switch messages
  - Asynchronous messages
  - Symmetric messages
  - Flow table
    - Multiple flow tables
    - All match fields but OFPXMT\_OFB\_PBB\_ISID
  - Group table
    - 4 group types (all, select, indirect, fast failover)
  - Meter table
    - 2 band types (drop and dscp remark)
  - Port
    - All OpenFlow ports but optional reserved ports
  - Counter
    - Per-table, per-flow, per-group, per-bucket, per-meter, per-band, and per-port counters

#### Virtual OpenFlow Controller

- There is no built-in controller software provided by EstiNet simulation platform. Instead, the platform is compatible with 3<sup>rd</sup>-party controller software, such as Ryu, OpenDaylight (ODL), NOX, etc.

## EstiNet Simulation Platform on Fedora Linux

User Space

Kernel Space

Hardware

