

# SDN Lab3

TA: 陳俊廷

Lab: ED817

Email: [andy1995030978@gmail.com](mailto:andy1995030978@gmail.com)

# Outline

- Goals
- Instructions

# Goals

- Learn how to use Ryu to modify flow entry dynamically
- Learn how to write a simple application based on monitor feature

# Lab Content

- Step 1: Retrieve flow information
- Step 2: Delete a flow entry when it has transmitted “30” packets

# Instructions

- Step 1: Retrieve flow information
  - Use “OFPFlowStatsRequest()” and “OFPFlowStatsReply()” to get information about flow entries
  - Remove flow entries based on “packet\_count”

# Instructions

- Step 2: Delete a flow entry when it has transmitted “30” packets
  - Use “OFPFlowMod” to delete flow entries
  - Specify command “OFPFC\_DELETE”
  - Parameter “match” decides which flow entry will be remove
  - Note that you have to stop “\_packet\_in\_handler” from adding flow entry which you want to delete

Reference :

[1][http://ryu.readthedocs.io/en/latest/ofproto\\_v1\\_3\\_ref.html#ryu.ofproto.ofproto\\_v1\\_3\\_parser.OFPFlowMod](http://ryu.readthedocs.io/en/latest/ofproto_v1_3_ref.html#ryu.ofproto.ofproto_v1_3_parser.OFPFlowMod)

# Instructions

- Step 2: Delete a flow entry when it has transmitted “30” packets
  - Test your code with “ping”
  - Ex: “h1 ping h2” makes host 1 keep sending packets to host 2
  - If flow entry is removed, host 1 won’t be able to ping host 2