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Chapter 1 Commands for OPENFLOW

1.1 openflow mode

Command: openflow mode

Function: Enter into the openflow configuration mode.

Parameters: None.

Default: None.

Command Mode: Configuration Mode.

Example:

```
switch(config)#openflow mode
```

1.2 openflow tcp

Command: openflow tcp A.B.C.D <1-65535>

no openflow tcp A.B.C.D <1-65535>

Function: Create the TCP connection between the openflow switch and the openflow controller appointed by the command (including the IP address and TCP monitoring ports information of the controller). The no command is to disconnect it.

Parameters: A.B.C.D: the IP address of the openflow controller;
<1-65535>: the monitoring ports of the openflow controller.

Default: None.

Command Mode: Openflow Configuration Mode.

Usage Guide: After enabled the openflow controller, it will show the monitoring ports information. The monitoring ports in this command must be consistent with the one shown on the openflow controller.

Example: Create the TCP connection to the openflow controller whose IP address is 192.168.2.1 and TCP monitoring port is 6633.

```
switch(config)#openflow mode
```

```
switch(config-openflow)#
```

```
switch(config-openflow)#openflow tcp 192.168.2.1 6633
```

1.3 openflow vlan

Command: openflow vlan <1-4094>

no openflow vlan

Function: Configure the vlan controlled by the openflow. The no command configures not to control any vlan anymore.

Parameters: <1-4094>: the range of the vlan controlled by the openflow.

Default: The openflow does not control any vlan.

Command Mode: Configuration Mode.

Usage Guide: The vlan controlled by the openflow must be separated to the vlan that the TCP connection between the openflow switch and controller is in. They cannot stay in the same vlan.

Example: Configure the openflow to control vlan2.

```
switch(config)#openflow vlan 2
```

1.4 openflow packet rate limit

Command: `openflow packet rate limit <1-800>`

Function: Configure the upper limit of the packets that the openflow switch sends to the controller every second.

Parameters: `<1-800>`: The range of the restriction.

Default: 200.

Command Mode: Configuration Mode.

Usage Guide: The upper limit cannot be more than 800.

Example: Configure the speed limit as 500pps.

```
switch(config)#openflow packet rate limit 500
```

1.5 openflow default send-to-controller

Command: `openflow default send-to-controller`

`no openflow default send-to-controller`

Function: Configure if the packets of packet-in will be sent to the controller by openflow.

Parameters: None.

Default: The packets of packet-in will not be sent to the controller by openflow as default.

Command Mode: Configuration Mode.

Example:

```
switch(config)# openflow default send-to-controller
```

1.6 show openflow acl all

Command: `show openflow acl all`

Function: Show the forwarding rules issued by openflow switch from the controller.

Parameters: None.

Default: None.

Command Mode: Global Mode.

Example:

```
switch#show openflow acl all
```

```
*****
```

```
wildcard:3678447
```

```
priority:5
```

```
in_port:0
```

```
source mac:00-00-00-00-00-00
dst mac:00-00-00-00-00-00
eth type:0x800
vlan id:0
vlan cos:0
source ip:0.0.0.0
source ip mask:0.0.0.0
dst ip:0.0.0.0
dst ip mask:0.0.0.0
ip protocol:0x00
ip tos:0
tcp/udp src port:0
tcp/udp dst port:0
output port:14
```