

CSC311 - Lab #2 – Forwarding Table

You will investigate the switches forwarding table. The actual switch steps have been completed for you in this lab. You will be responsible for responding to the questions. The screen shot of all switch commands and pings, as well as the corresponding output are shown at the bottom of the assignment.

The following steps were completed with two clients and a switch. The network used was 192.168.150.0.

1. One client was powered on and the other client remained off.
2. The switch's table was displayed using the command
show vlan info fdb-entry 50
3. The second client was turned on
4. The first client (.10) pinged the second client (.11)
5. The switch's table was displayed using the command
show vlan info fdb-entry 50

Answers the following questions

1. If entries were added between steps 2 and 5, explain why. If no entries were added between steps 2 and 5, explain why you think this happened.
2. Briefly explain each of the entry in the forwarding table (what node do they represent)? How can you verify the identity of each entry (how do you know for sure what node each entry represents; don't make any assumptions, but specify how you can absolutely verify the node that corresponds to each entry in the table)?
3. What does the status field in the forwarding table tell you? Be specific.

```
ERS-1648T:1/clear# show vlan info fdb-entry 50
```

```
=====
                          Vlan Fdb
=====
```

VLAN ID	STATUS	MAC ADDRESS	INTERFACE	QOS LEVEL	SMLT REMOTE
50	self	00:0e:62:41:e0:32	-	1	false
50	learned	00:1b:21:14:d1:0a	Port-1/31	1	false

```
2 out of 2 entries in all fdb(s) displayed.
```

```
ERS-1648T:1/clear# now turning on client #2
"now" not found in path /ERS-1648T:1/clear
ERS-1648T:1/clear# client #1 pinged client #2
"client" not found in path /ERS-1648T:1/clear
ERS-1648T:1/clear# show vlan info ip
```

```
=====
                          Vlan Ip
=====
```

VLAN ID	IP ADDRESS	NET MASK	BCASTADDR FORMAT	REASM MAXSIZE
50	192.168.150.1	255.255.255.0	ones	1500

```
ERS-1648T:1/clear# show vlan info fdb-entry 50
```

```
=====
                          Vlan Fdb
=====
```

VLAN ID	STATUS	MAC ADDRESS	INTERFACE	QOS LEVEL	SMLT REMOTE
50	self	00:0e:62:41:e0:32	-	1	false
50	learned	00:1b:21:14:d1:0a	Port-1/31	1	false
50	learned	00:1b:21:14:d1:88	Port-1/32	1	false

```
3 out of 3 entries in all fdb(s) displayed.
```

```
ERS-1648T:1/clear# █
```