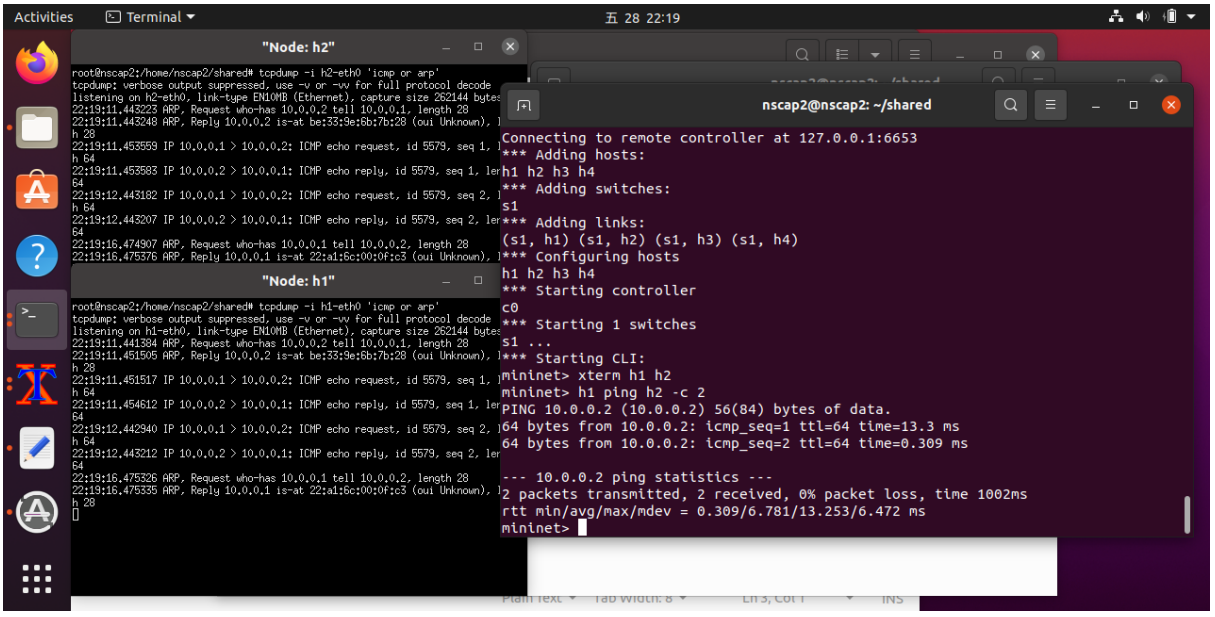
NSCAP HW6

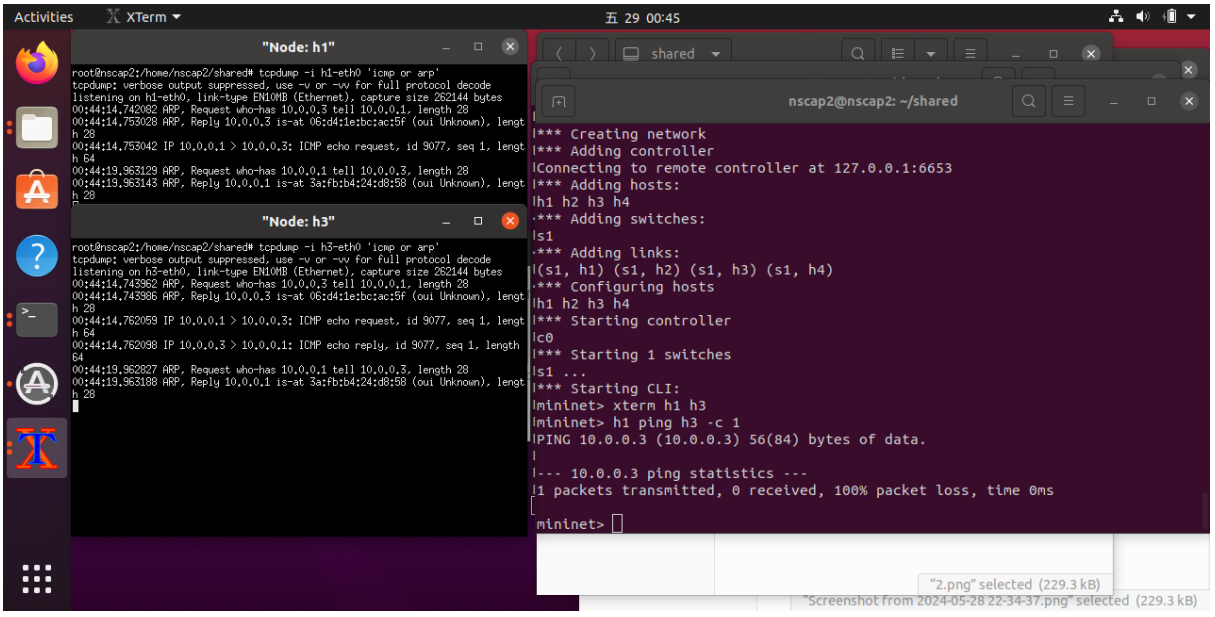
Created @May 28, 2024 10:20 PM

Q1. h1 ping h2



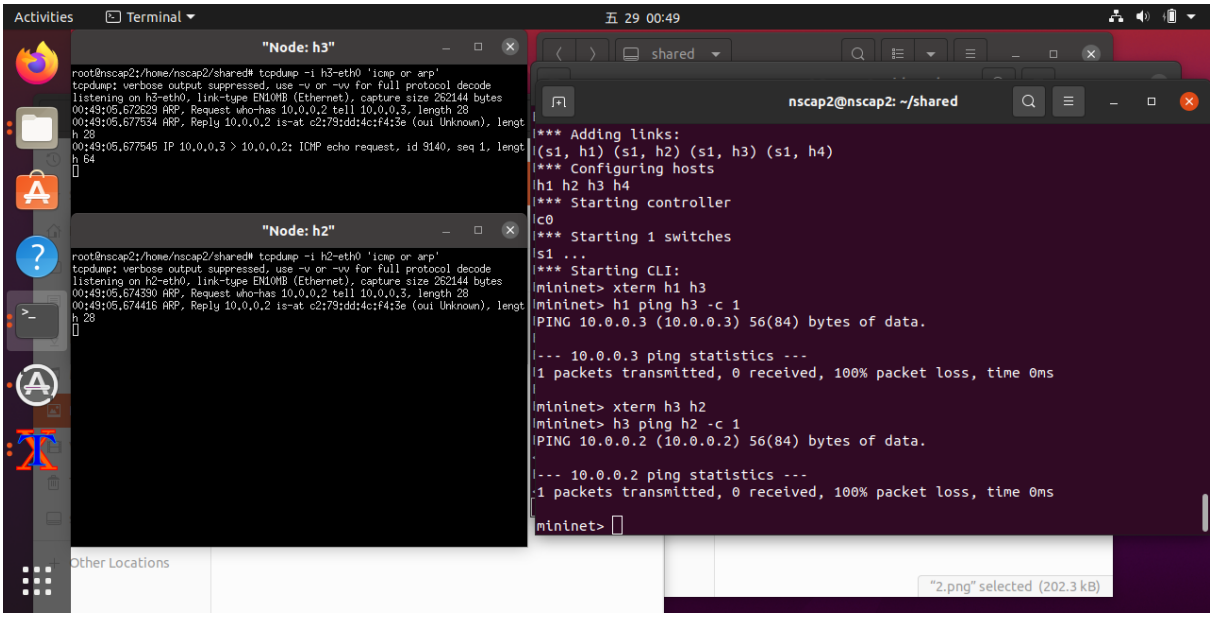
ARP :
h1 sent request
h2 received and replied
h1 received the reply
ICMP :
h1 sent request
h2 received and replied
h1 received the reply

Q2. h1 ping h3



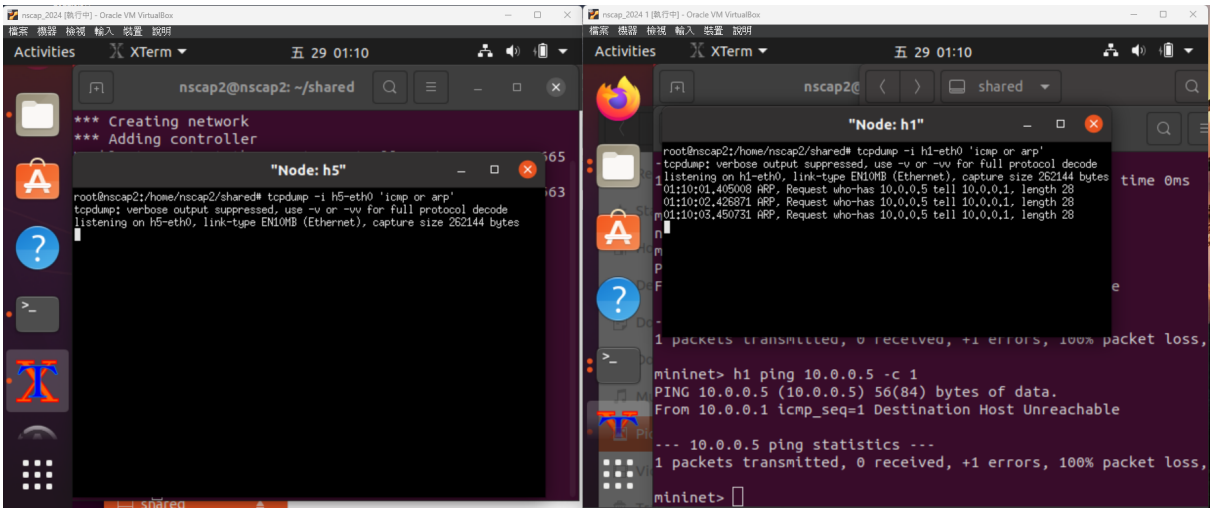
ARP :
h1 sent request
h3 received and replied
h1 received the reply
ICMP :
h1 sent request
h3 received and replied
h1 didn't received since the switch block the ICMP from port 3

Q3. h3 ping h2



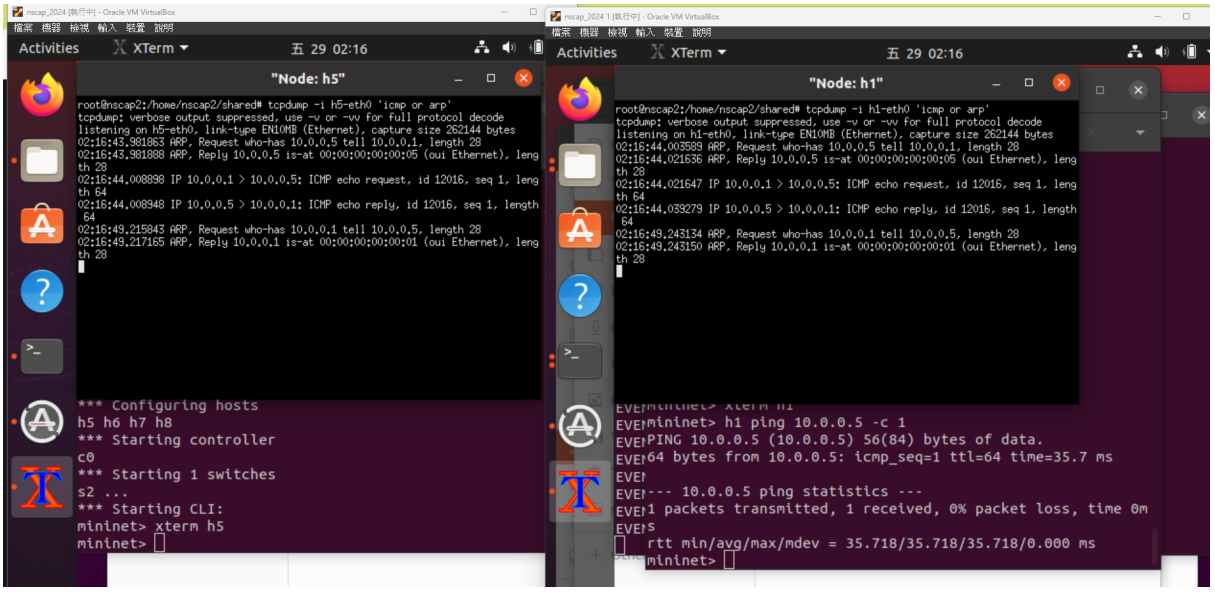
ARP :
h3 sent request
h2 received and replied
h3 received the reply
ICMP :
h3 sent request
h2 didn’t received since the switch block the ICMP from port 3

Q4. h1 ping h5



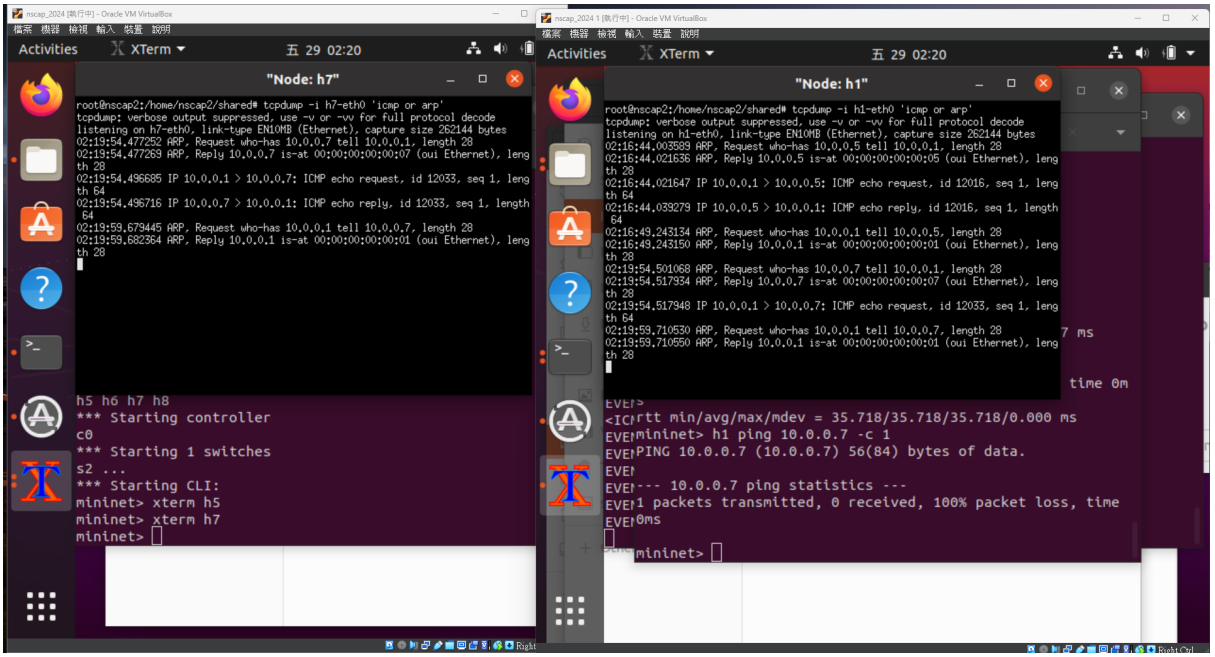
ARP :
h1 sent request
h1 sent request
h1 sent request
h5 didn’t received since there is no tunnel between two topology
ICMP :

Q5. h1 ping h5



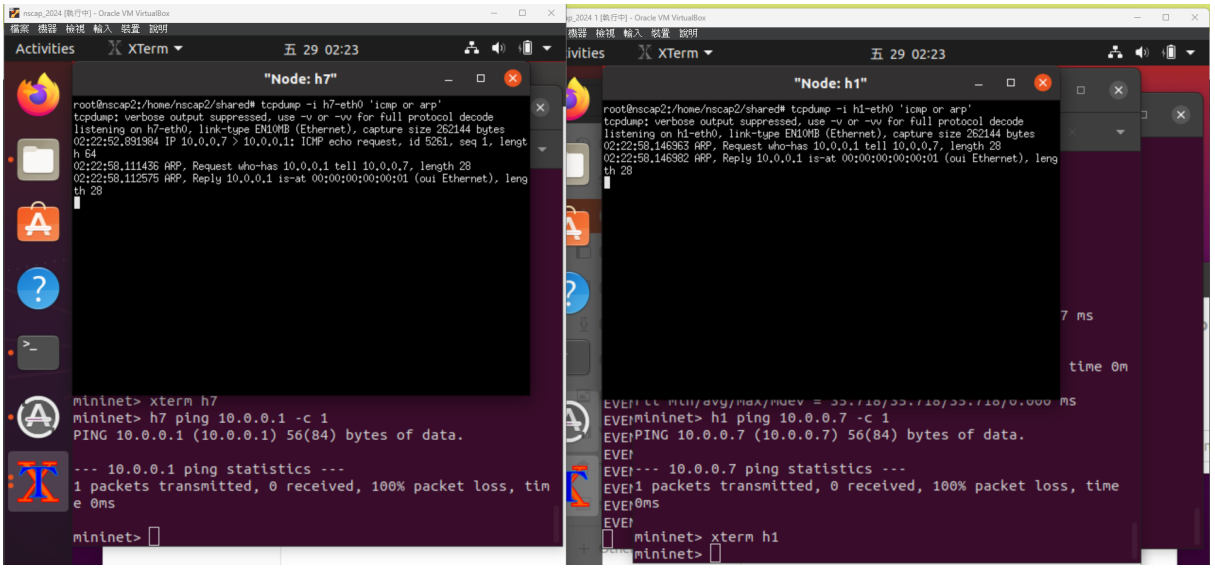
ARP :
h1 sent request
h5 received and replied
h1 received the reply
ICMP :
h1 sent request
h2 received and replied
h1 received the reply

Q6 h1 ping h7



ARP :
h1 sent request
h7 received and replied
h1 received the reply
ICMP :
h1 sent request
h7 received and replied
h1 didn’t receive the reply since the controller block the ICMP pkt to port3 in s2

Q7. h7 ping h1



ARP :
h1 sent request
h7 received and replied
h1 received the reply
ICMP :
h7 sent request
h1 didn’t receive the request since controller will block ICMP pkt to port3 in s2

Q8. Are Q4 and Q6 or Q7 the same?

NO.
They are not the same since all pkt in Q4 was dropped by
no tunnel. On the other hand, only ICMP pkt in Q6 and Q7 dropped by switch 2.

Their different outcome:
→ Q4 has 3 ARP requests.
→ Q6 or Q7 can complete ARP requests.

Q9. Change Rule

If the rule change that ICMP pkt from port1 and port2 would be dropped, will the outcome of Q5, Q6, Q7 become different?

Yes.

- Q5 →original Q7 since it will dropped when the first time h1 want to send ICMP.
- Q6 and Q5 will become the same situation.
- Q7 → original Q5 since the ICMP reply of h1 will block by switch rule.