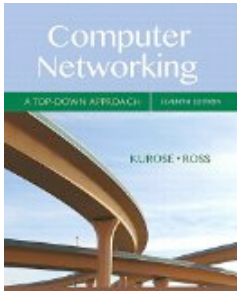
COMP 375: Lecture 30



- **News & Notes:**
  - Project #4 due @ 10PM
- **Reading (Wed, Apr. 18)**
  - Review previous reading

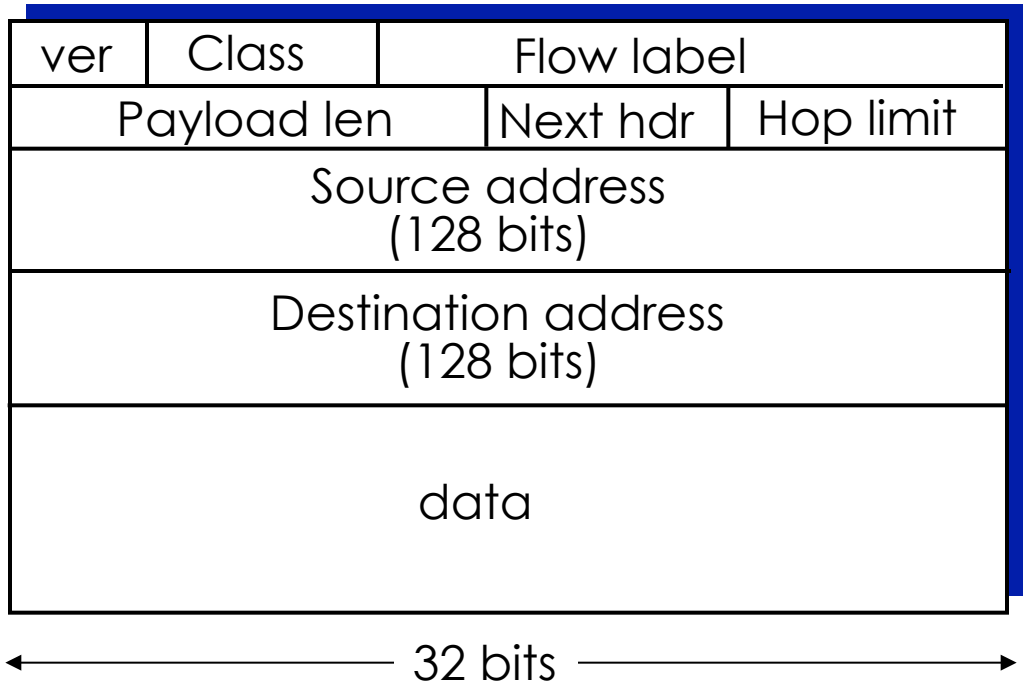
How do we feel about NAT?

A.	NAT is **great**! It conserves IP addresses and makes it harder to reach non-public machines.
B.	NAT is **mostly good**, but has a few negative features. No big deal.
C.	NAT is **mostly bad**, but in some cases, it's a necessary evil.
D.	NAT is an **abomination** that violates the separation of network layers, and we should not use it!

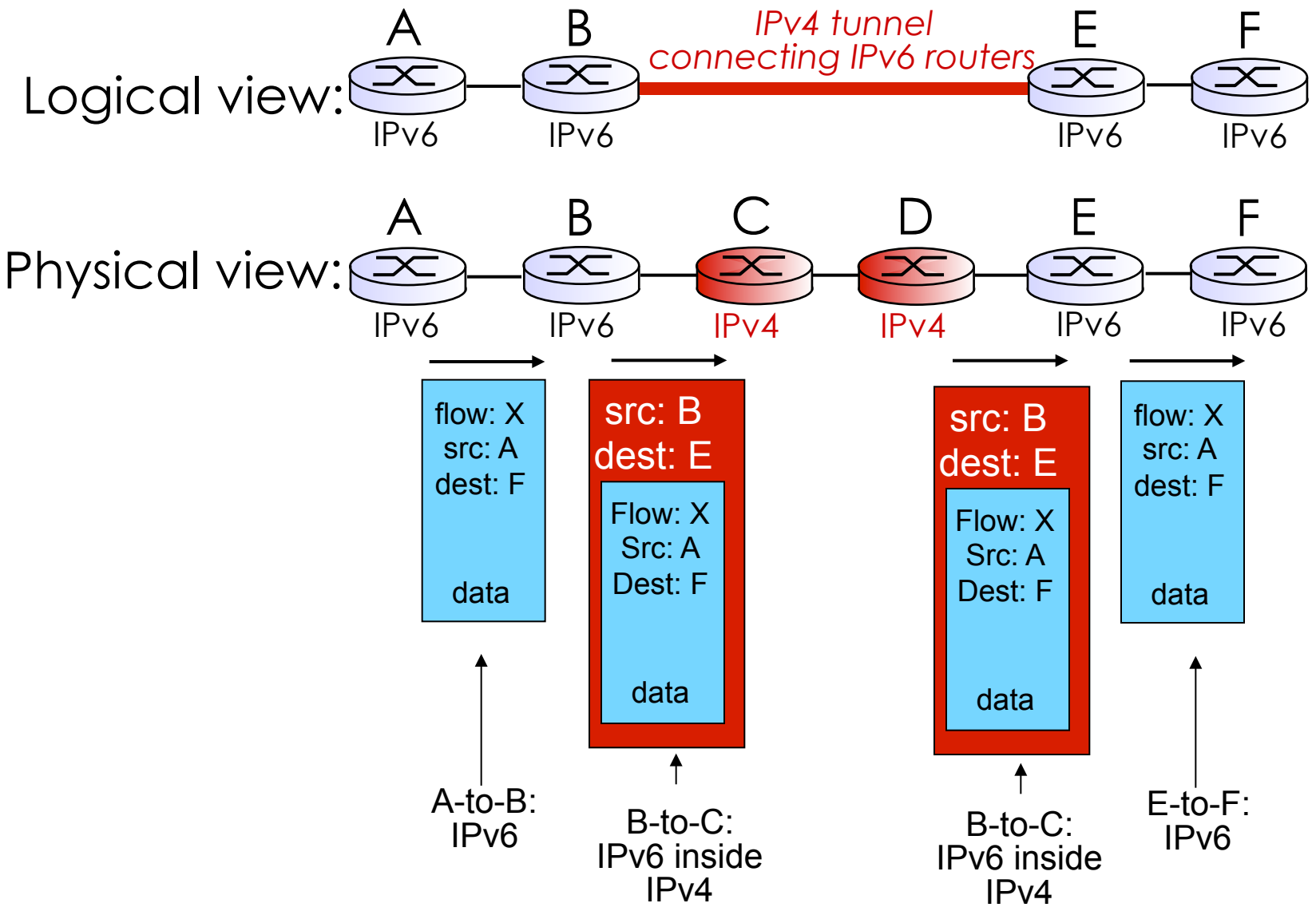
Section 4.3.5

IPv6

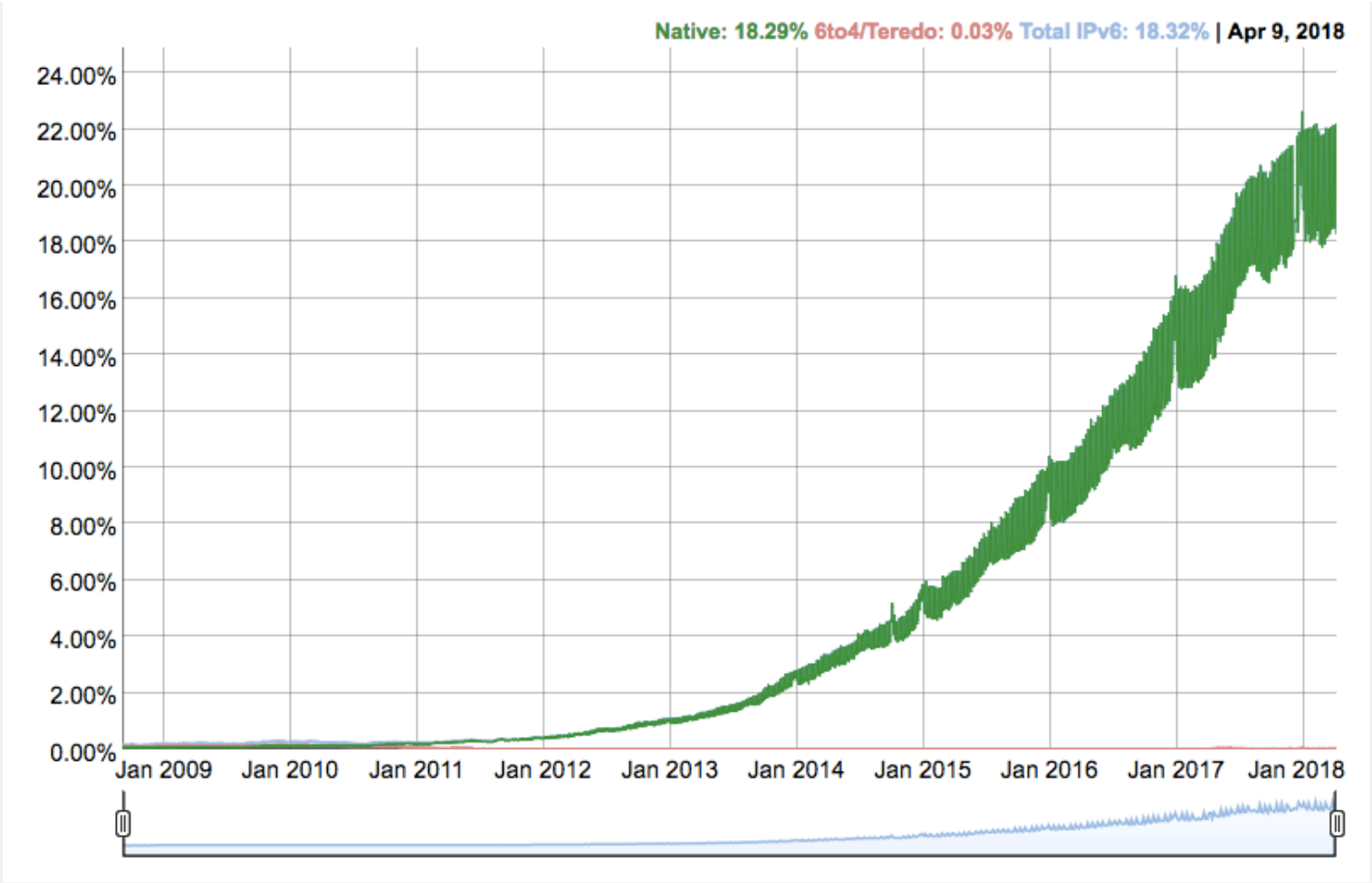
IPv6 was designed to support more addresses and faster packet processing.



Tunneling allow sending IPv6 packets via IPv4, allowing a mix of IPv4/v6.



Google tracks the adoption rate of IPv6.

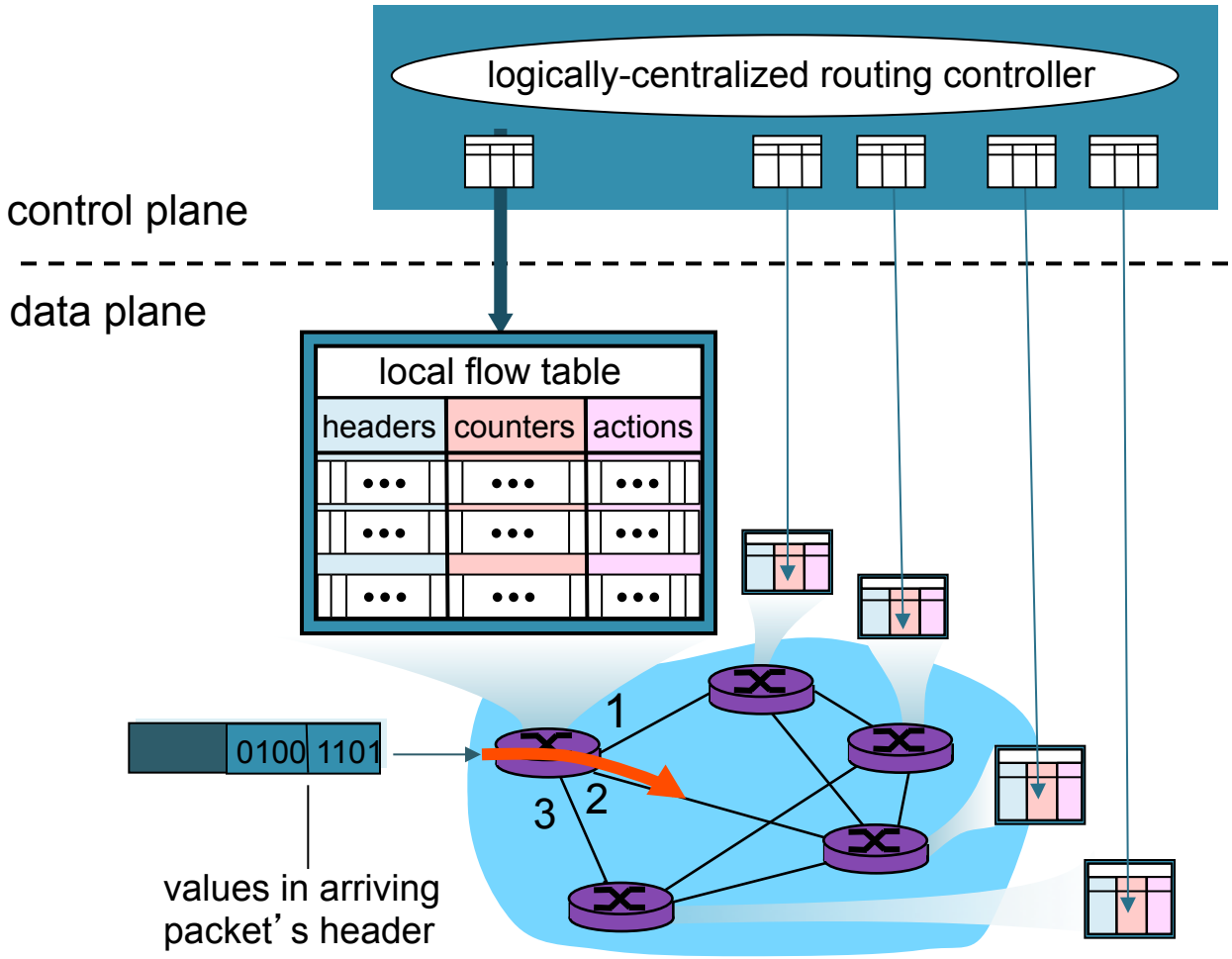


Source: https://www.google.com/intl/en/ipv6/statistics.html

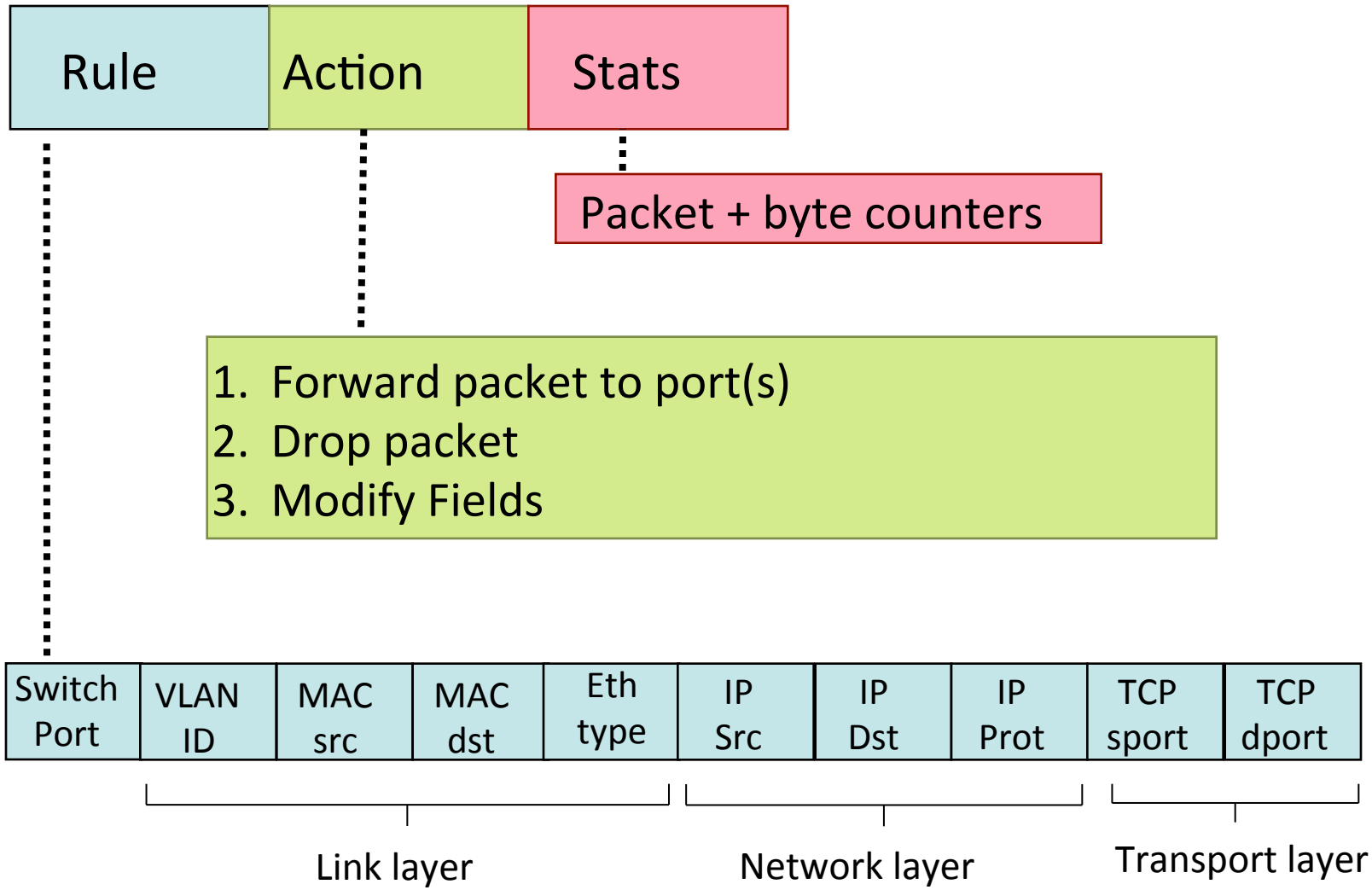
Section 4.4

GENERALIZED FORWARDING

SDN replaces forwarding table with flow table, computed by a central controller.

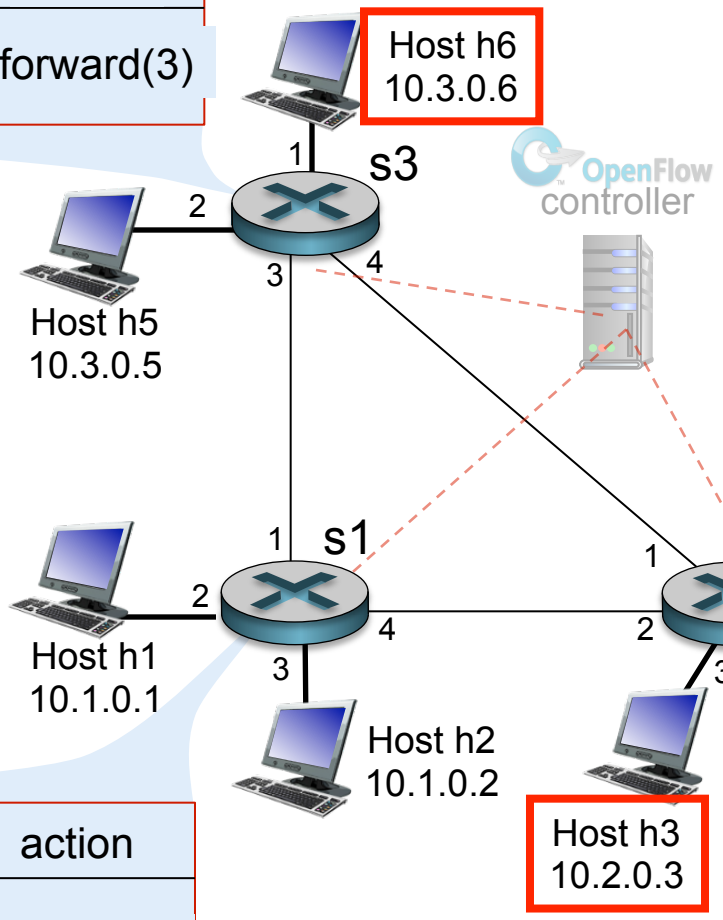


Each flow table entry consists of a rule, an action, and associated stats.



Which path will be used to transfer data from h3 to h6?

match	action
IP Src = 10.3.*.* IP Dst = 10.2.*.*	forward(3)



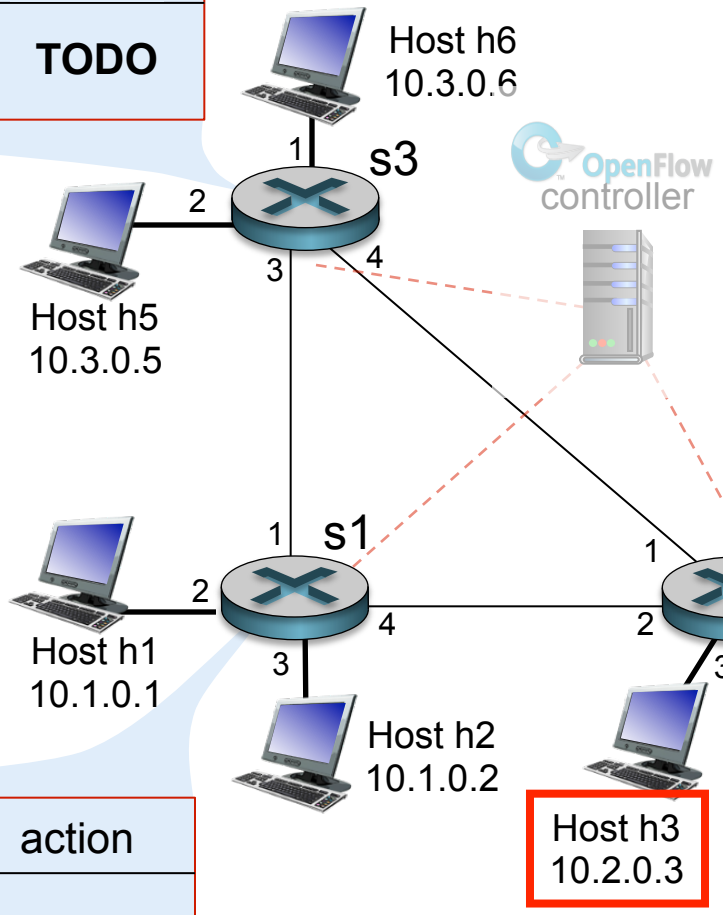
A.	s2 → s1 → s3
B.	s2 → s3
C.	Both A and B
D	Unknown

match	action
ingress port = 1 IP Src = 10.3.*.* IP Dst = 10.2.*.*	forward(4)

match	action
ingress port = 2 IP Dst = 10.2.0.3	forward(3)
ingress port = 2 IP Dst = 10.2.0.4	forward(4)

Fill in the flow tables to ensure **h3** packets go clockwise, **h4** packets go counterclockwise.

match	action
TODO	**TODO**



match	action
TODO	**TODO**

match	action
TODO	**TODO**