1. It will send the packet to 10.1.3.3 through interface s0

* This is it is most specific longest matching route in the routing table

1. It will send the packet to 131.22.0.0/15through interface 1

* This is it is most specific longest matching route in the routing table

1. Next hops:

* 192.24.6.0 next hop will be D
* 192.24.14.32 next hop will be B
* 192.24.54.0 next hop will be D

1. TCP layers:

* Application
* Provides network services directly to end-users.
* Transport
* Handles end-to-end communication, error recovery, and flow control.
* Internet
* Handles the packet routing, addressing, and fragmentation.
* Network access layer
* Manages hardware addressing (MAC), physical connections, and framing

Router operates up to the Internet Layer

Switch operates on the Network Access Layer

1. Traceroute tracks the packets path showing each router hop aloing the way

* It works by giving a apacket a time to live, which is the amount of hops it can make. So every hop it makes will increment the current amount of hops it had made.

1. To handle multipl econcurrent client connections you could use use multithreading.

* Every new client that gets added, you create a thread for them.