LIST OF PAST YEAR QUESTIONS NOT GIVEN OR INSUFFICIENTLY EXPLAINED IN THE PPT

1. Compare persistent and non-persistent TCP connections that are used to configure HTTP clients and servers. Ans

2. Illustrate the basic operations of SMTP. Ans

3. With a neat figure explain the interaction between various DNS servers. Ans or PPT

4. Differentiate between POP3 and IMAP. Ans

5. Illustrate with neat figures the sequence of TCP states visited by the TCP client and TCP server. Explain the events that make the client and server to transition into these states.

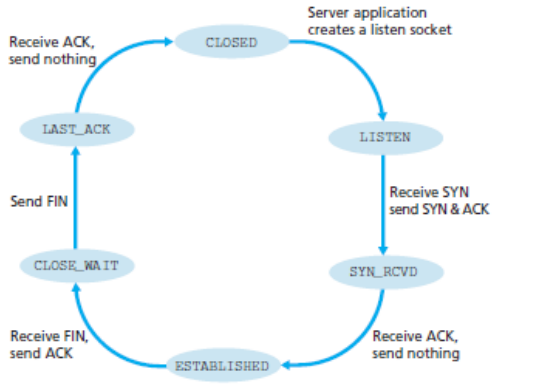


Figure 3.42 ♦ A typical sequence of TCP states visited by a server-side TCP

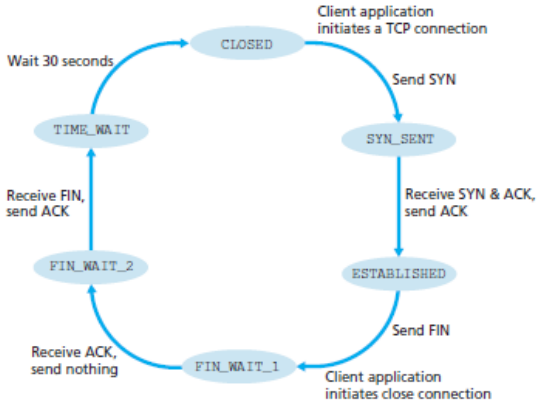


Figure 3.41 ♦ A typical sequence of TCP states visited by a client TCP

(or Kurose-Ross page 286)

6. What is meant by fairness in TCP? With an example explain how two TCP connections share single bottleneck link. What are the problems in sharing? (PPT - Fairness)

*7. What is meant by fast recovery? Draw a neat graph that shows three phases of congestion control in TCP Variants. (PPT - Congestion Control) (seems important)

8. What is meant by multiplexing and demultiplexing. Explain with neat diagram transport layer multiplexing and demultiplexing. Ans

9. Why is HTTP called as stateless protocol? Ans

10. GET and Conditional GET. Ans

11. Suppose Bob joins a BitTorrent torrent, but he does not want to upload any data to any other peers (so called free-riding). Ans

12. Differentiate between Recursive and Iterative DNS queries with neat figures. Ans

13. Why is FTP called "Out of band protocol"? Explain. Ans

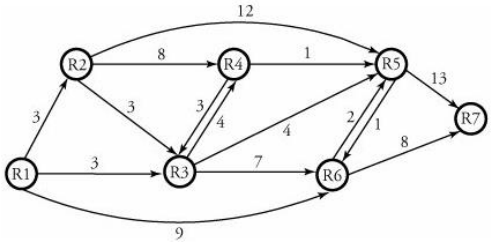
14. Illustrate with neat figure connection oriented multiplexing and demultiplexing. (PPT or here)

15. Describe why an application developer might choose to run an application over UDP rather than TCP. Ans

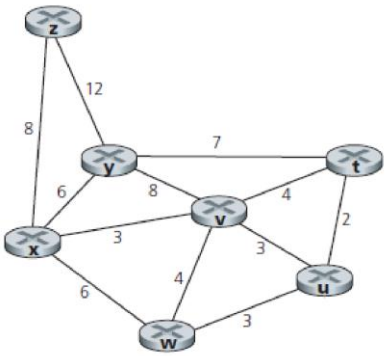
16. What is address depletion? How DHCP and NAT help in address depletion? Compare the usage of DHCP and NAT to address this issue. (PPT)
17. Draw the TCP segment structure and discuss the use of the following flags of TCP segment:
i) PUSH ii) URG iii) SYN iv) RST. Ans

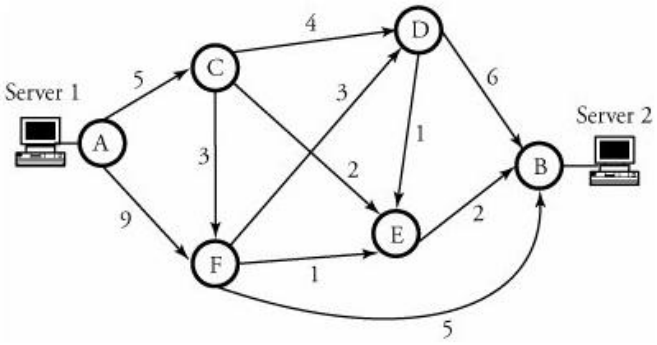
18. Discuss briefly RIP distance vector routing with suitable formulas and updating of routing table in RIP using split-horizon and poisoned-reverse rule. Ans

Additional To-Do:



Bellman-Ford on this problem





Djikstra on these problems

- Distribution time formulae for P2P and Server-Client
***-** TCP AIMD Congestion control numericals. Seems important

Get me food next time you see me :P