

Recitation 6: Group exercises

1. SCTP

- Why SCTP is needed? Is SCTP designed to replace TCP?
- Compare the features of SCTP, TCP and UDP.
- Explain the design motivation for Verification Tag.
- List as many SCTP chunk types as you can? Can you find corresponding features in TCP to each SCTP chunk type?
- An SCTP data chunk is numbered using:
 - a. TSN
 - b. SI
 - c. SSN
 - d. none
- To distinguish between different streams, SCTP uses:
 - a. TSN
 - b. SI
 - c. SSN
 - d. none
- To distinguish between different data chunks belonging to the same stream, SCTP uses:
 - a. TSN
 - b. SI
 - c. SSN
 - d. none
- In SCTP, what is the smallest possible field of a data chunk? And in that case, what is the total SCTP packet length?
- Read the following DATA chunk dump in hex format:
00000015 00000005 0003000A 00000000 48656C6C 6F000000
Draw the corresponding chunk field diagram and find out the UBE flags, TSN, SI, SSN, message and paddings.
- The state of a receiver is as follows:
 - a. The receiving queue has chunks 1 to 8, 11 to 14 and 16 to 20.
 - b. There are 1800 bytes of space in the queue.
 - c. The value of lastAck is 5.
 - d. No duplicate chunk has been received.
 - e. The value of cumTSN is 5.Show the contents of the receiving queue and the variables. Show the contents of the SACK message sent by the receiver.

2. Unicast Routing Protocols

- What is an autonomous system (AS).

- What is the difference between intradomain and interdomain routing?
- What is distance vector routing? How it works?
- What is the difference between split horizon and poison reverse?
- Compare the message formats for RIPv1 and RIPv2.
- How link state routing works?
- What is a stub link?
- What is BGP identifier in an Open message?