Ve489 Computer Networks

Instructor: Xudong Wang

Homework Set 6

Due date: July 27, 2023

1. What are the major differences between UDP and TCP protocols?

2. Why does TCP need to set up a bidirectional connection?

3. Why TCP is designed as a byte-stream protocol?

4. What is pseudo header in TCP and UDP?

5. How an initial sequence number of TCP is selected?

6. Why does TCP connection release take a conservative way (i.e., multiple waiting states)?

7. How flow control and congestion control are combined in the TCP protocol?

8. Explain the three phases of TCP congestion control?

9. Why is slow start necessary in TCP? Is it efficient?

10. How can TCP recover from congestion in a faster way?