

5.1

2019 年 9 月 4 日

1 UDP

1. checksum
 - (a) 为什么需要校验和

2 可靠传输原理

1. rdt1.0
 - (a) ACK
 - (b) NAK
2. rdt2.1
 - (a) 加序号, 有回应
 - (b)
3. rdt2.2
 - (a)
4. rdt3.0
 - (a) New assumption:
underlying channel can lose packets.

- (b) approach:
 - set Timeout
 - require countdown timer
- (c) performance stinks

5. Pipelining

- (a) sender allows multiple.
- (b) Two generic forms of pipelined protocol
 - i. go-Back-N(silding-window protocol)
 - ii. selective repeat
 - receiver individually acknowledges all correctly received pkts

3 TCP

1. ...
 - (a) point to point
 - (b) reliable,in-order byte
 - (c) pipelined
 - (d) send &receive buffers
 - (e) full duplex data
 - (f) connection-oriented
 - (g) flow controlled
2. TCP seg construction
 - (a) sequence number
 - (b)
3. how to set TCP timeout value?
 - longer than RTT
4. how to estimate RTT?
 - average several recent measurements, not just current SampleRTT