P7:

Total: TRR1+RRT2+RTT3+….+RTTn

If IP address is known, RTT0 will elapses to set up the TCP connection and another RTT0 will create.

So the total: 2RTT0+ TRR1+RRT2+RTT3+….+RTTn

P9:

1. Average =8.5\*10^5 bits/ 1.5\*10^7 = 0.0567 sec

Traffic intensity = 16 request/sec / 0.0567 sec/request = 0.907

Average delay = = 0.0567 sec /(1-0.907)=0.6 sec

Total = 0.6 + 3 = 3.6sec

1. Cause 60% requests are satified

So the average access delay = 0.0567 sec /(1-0.4\*0.907) = 0.089 seconds

Average response = 0.089 sec + 3 sec = 3.089 sec for missed cache

Total average response time = 0.4 \* 3.089 =1.24 sec

P22:

F=15 Gbits = 15360Mbits

S=30Mbps

Di =2Mbps

Min distribution time: =max {NF/u, F/dmin}

=7680 sec

P26:

1. Yes, his first claim is possible, and there are enough peers. Hi can always receive data through optimistic un-choking by other peers.
2. His second claim can be accepted too. He can run client on each host, let each client “free-ride”, and combine the collected chunks from different host.

He can also write a small scheduling program to make the different hosts asking for different chunks.

P28

Text

Description automatically generated

1. UDP Client can run before server

Graphical user interface, text, application

Description automatically generated

Graphical user interface, text, application

Description automatically generated

1. An error will occur when run client, and server will wait for a client create.

Graphical user interface, application

Description automatically generated

Text

Description automatically generated with medium confidence

Graphical user interface, application, Word

Description automatically generated