ERRATA

Review Exercise 29.11 (Forouzan)



First of all, be aware that according to the figures above, the amount of data is measured in time (seconds). The reason for this is because of the nature of real time traffic. Each of the three packages holds 10 seconds of video and the threshold for the playback buffer is 7 seconds. But each package has different delays: 1s, 5s and 7s for the first, second and third packet, respectively.

From 00.00.01, the amount of data in the playback buffer increases with time, and by 00.00.08 it is full (7s of data). Note that there is a gap of 4 seconds between the first and second package. Then, from 00.00.11 (complete arrival of first package) to 00.00.15 (start of second package) the amount of data in the playback buffer decreases as the time goes by. By the time the second package starts arriving (00.00.15), the playback buffer has already lost 4s of data, resulting in 7s-4s=3s in the buffer. Then, there is 3 seconds of data in the buffer until the 2nd package arrives completely (00.00.25). A similar thing happens between 00.00.25 (end of the 2nd package) and 00.00.27 (beginning of the 3rd package), where the buffer loses more 2s of data, leaving only 1 second of data actually in the buffer. Then, the amount of data in the buffer stabilizes again.

In summary:

a. 00.00.17

There is 3s in the buffer. 4s are lost between 00.00.11 and 00.00.15. b. 00.00.20

- There is 3s in the buffer.
- c. 00.00.25
 - There is 3s in the buffer.
- d. 00.00.30 There is 1s in the buffer. 2s are lost between 00.00.25 and 00.00.27.

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