

Problem #1

- a. T
- b. F; Can't tell where error occurred
- c. F; Not easier on hardware. It's a much stronger check
- d. F; ALOHA util. $\rightarrow 0$ under high load
- e. F; Reason is that updates propagate to neighbors, loops don't affect convergence
- f. T
- g. F
- h. T
- i. F, Nonsense! V.P. are used to decrease state in transit network
- j. F; It restricts the range, which was too great in the previous metric

Problem #2

No solution available

Problem #3

No solution available

Problem #4

Round 1

Node	TRT, microsec	THT, microsec	Synchronous Data Sent(KB)	Asynchronous Data Sent(KB)
A	600	655	0	8
B	1055	410	5	0
C	1365	164	2	0
D	1529	82	1	0

Each frame requires $8192 \text{ bits} / 10014 \text{ bps} = 81.9 \text{ microsec}$

If time has not yet expired entire frame is sent

$$TRT_A = 200 + 200 + 100 + 0 + 100 = 600 \text{ microsec}$$

$$\text{max frames A can send} = (1200 - 600) / 81.9 = 8$$

$$THT_A = 8 * 81.9 = 655 \text{ microsec}$$

$$B : TRT_B = 600 + 655 - 200 = 1055 \text{ microsec}$$

$\text{maxframes} = (1200 - 1055) / 81.9 = 2$, but B has 5 synch. frames so $TRT_B = 5 * 81.9 = 410 \text{ microsec}$; Likewise for C,D

Round 2

Node	TRT, microsec	THT, microsec	Synchronous Data Sent(KB)	Asynchronous Data Sent(KB)
A	1511	0	0	0
B	856	410	5	0
C	856	410	2	3
D	1102	164	1	1

Round 3

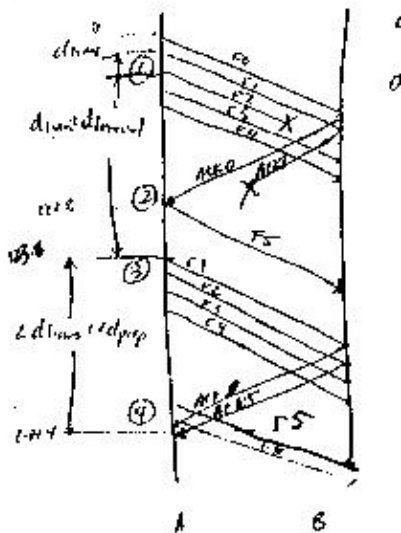
Node	TRT, microsec	THT, microsec	Synchronous Data Sent(KB)	Asynchronous Data Sent(KB)
A	1184	82	0	1
B	1266	410	5	0
C	1266	164	2	0
D	1020	164	1	1

Problem 5

d.) 3, update arrives at F in 3 rounds.

Problem 6

a.)



b.) total time = 245.3 mS

c.) WE will get an ACK back in d_{trans} and $2d_{prop}$ sec. Therefore, it is useful for the window to be as big as $(d_{trans} * 2d_{prop}) / d_{trans} = 148$ frames.

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