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6) message from source host to first packet switch

a) $\frac{8 \times 10^6}{2 \times 10^6} = 4\text{sec}$

TO destination host

$4\text{sec} \times 3\text{hops} = 12\text{sec}$

b) 1st Packet from source host to 1st packet switch

$\frac{1 \times 10^4}{2 \times 10^6} = 5\text{msec}$

1st Packet received at second switch

$2 \times 5\text{msec} \Rightarrow 10\text{msec}$

c) When using message segmentation it can be seen as less as compared to another as the time in which 1st packet was received at destination host = $5\text{msec} \times 3\text{hops} = 15\text{msec}$ and when the last packet meaning at 800 it would equal $15\text{msec} + 799 \times 5\text{msec} = 4.01$

d) By not using message segmentation huge packets are sent into the network and since huge packets are then accomodated, the smaller packets would then experience huge delay times.

e) message segmentation causes many smaller packets causing them to be of same header size thus the total amount of header bytes would be more.

	9:50 AM	11:30 AM	11 PM
5a) means:	20.8 ,	15.6,	17.5
standard deviation:	1.23 ,	1.05,	1.17

b) At each of the 3 hours, the trace routes have 11 routers so, no the paths didn't change

c) Trace route packets passed through 5 ISP networks from source to destination and yes, the largest delays happened among adjacent ISPs

D) The only real difference would be the increase of time for different continents other than that they have similar output