

1) Quelle Q3

$$\text{Link 1: } t_x = \frac{1500 \text{ Byte}}{300 \text{ kbps}} = \frac{12000 \text{ Bit}}{300000 \text{ bps}} = 0,04 \text{ s} = 4000 \text{ ms}$$

$$\text{Link 2: } t_x = \frac{1500 \text{ Byte}}{500 \text{ kbps}} = \frac{12000 \text{ Bit}}{500000 \text{ bps}} = 0,024 \text{ s} = 2400 \text{ ms}$$

$$\text{Link 3: } t_x = \frac{1500 \text{ Byte}}{400 \text{ kbps}} = \frac{12000 \text{ Bit}}{400000 \text{ bps}} = 0,03 \text{ s} = 3000 \text{ ms}$$

$$\text{Link 4: } t_x = \frac{1500 \text{ Byte}}{300 \text{ kbps}} = \frac{12000 \text{ Bit}}{300000 \text{ bps}} = 0,04 \text{ s} = 4000 \text{ ms}$$

$$T_{E2E}(1) = T_{e1}(1) + T_{e2}(1) + T_{e3}(1) + T_4(1)$$

$$= 4000 \text{ ms} + 20 \text{ ms} + 2400 \text{ ms} + 6 \text{ ms} + 3000 \text{ ms} + 10 \text{ ms} \\ + 4000 \text{ ms} + 20 \text{ ms}$$

$$= 13456 \text{ ms}$$