**Exer 9-1.**Given that the costs are recorded as 8-bit numbers in a 50-router network, the total number of bits sent can be found first by multiplying the bit number by the number of routers, therefore 8 \* 50 = 400 bits. Additionally, we are given that distance vectors are exchanged twice per second, therefore the bits are sent twice per second on each link, 2 \* 400 = 800 bits. So, for the full-duplex line, **800 bits per second** are consumed by the distributed routing algorithm per link in each direction.

**Exer 9-2.**One protocol parameter that might be negotiated when a connection is set up is window size, which is the maximum amount of data that can be transmitted before requiring an acknowledgement from the receiver, impacting flow control. Another parameter is maximum segment size, or MSS, which is the largest amount of data that can be transmitted in a single packet. Another parameter is time to live, or TTL, which is a value in the IP packet header that determines how long, in router hops, a packet can exist in a network before it is discarded.

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