Tarea corta #4

- Book exercises

12. Match the layers—Link, Network, and Transport—with the guarantees that each layer could provide to higher layers

Garantee	Layer
Best effort delivery	Link
Reliable delivery	Network
In-order delivery	Transport
Byte-stream abstraction	Transport
Point-to-point link abstraction	Transport

13. Suppose that two network endpoints have a round-trip time of 100 milliseconds, and that the sender transmits five packets every round trip. What will be the sender's transmission rate for this round-trip time, assuming 1500-byte packets? Give your answer in bytes per second.

13.

Packet size: 1500 bytes

Number of packet: 5

Total bytes round-trip time = $1500 \cdot 5 = 7500$ bytes

rtt: 100 milliseconds = 0,1 second

Transmission rate = $\frac{7500}{0,1}$ = 75000 bytes per second

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Tarea corta #4

The subnet of Fig. 1-12(b) was designed to withstand a nuclear war. How many bombs would it take to partition the nodes into two disconnected sets? Assume that any bomb wipes out a node and all of the links connected to it.

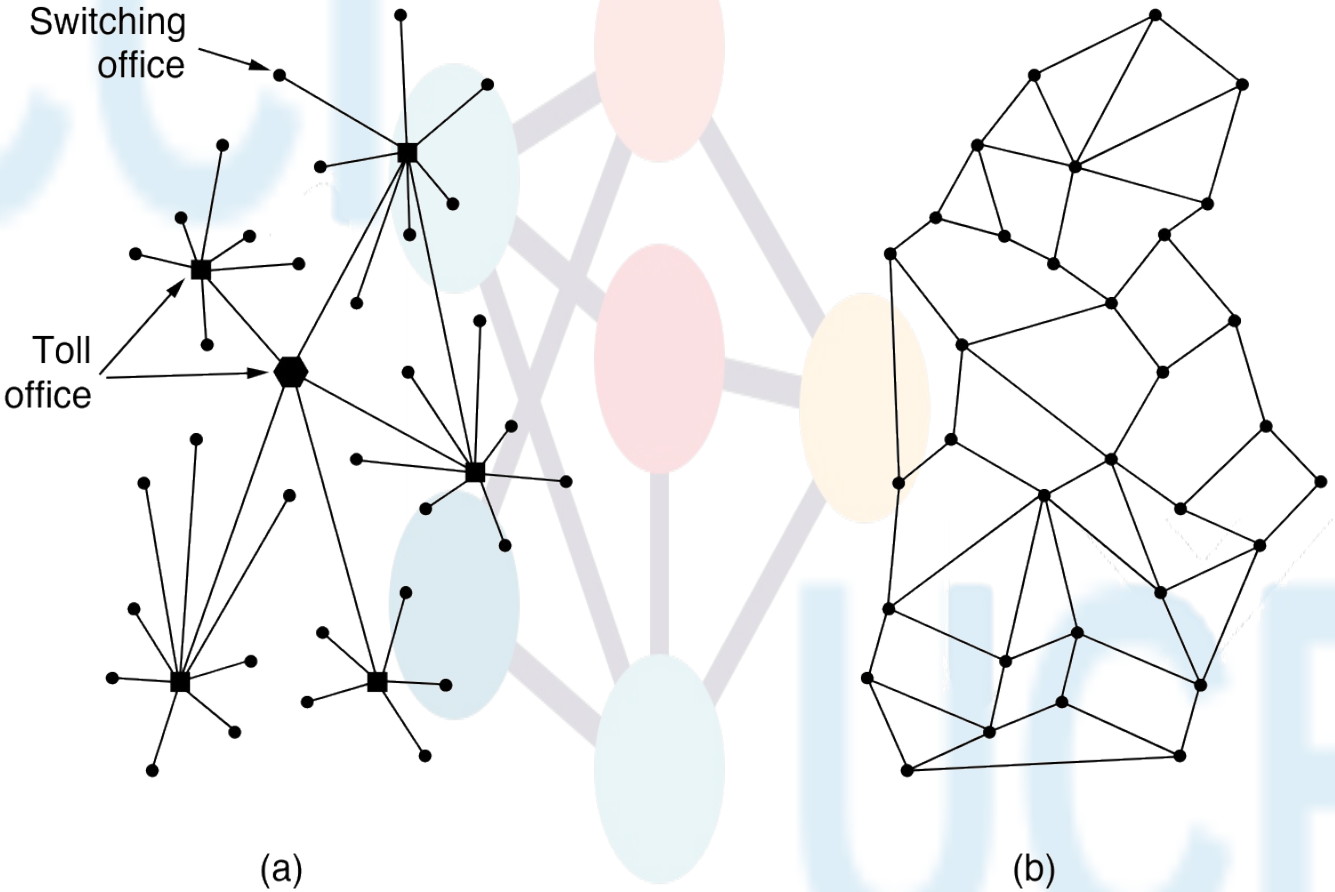
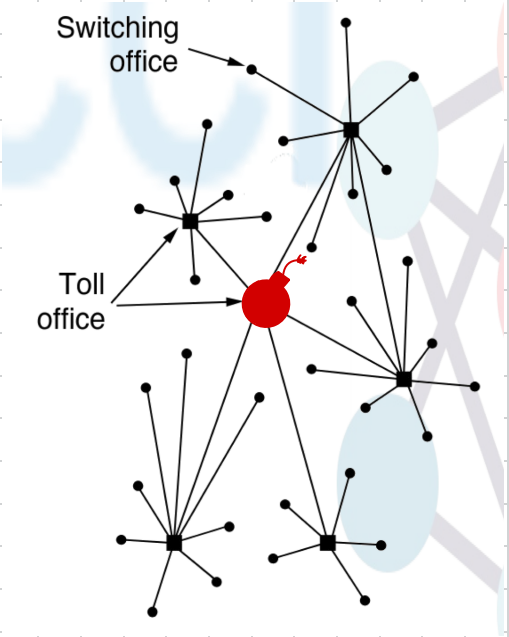


Figure 1-12. (a) Structure of the telephone system. (b) Baran's proposal.

Para el gráfico A se ocupa una para separarlos.



Para el gráfico B se ocupan 5 bombas para separarlo.