What internetworking device can be used to filter traffic on the network?

- One way to solve the problems of too much traffic on a network and too many collisions is to use an internetworking device called a bridge.
- A bridge eliminates unnecessary traffic and minimizes the chances of collisions occurring on a network by dividing it into segments

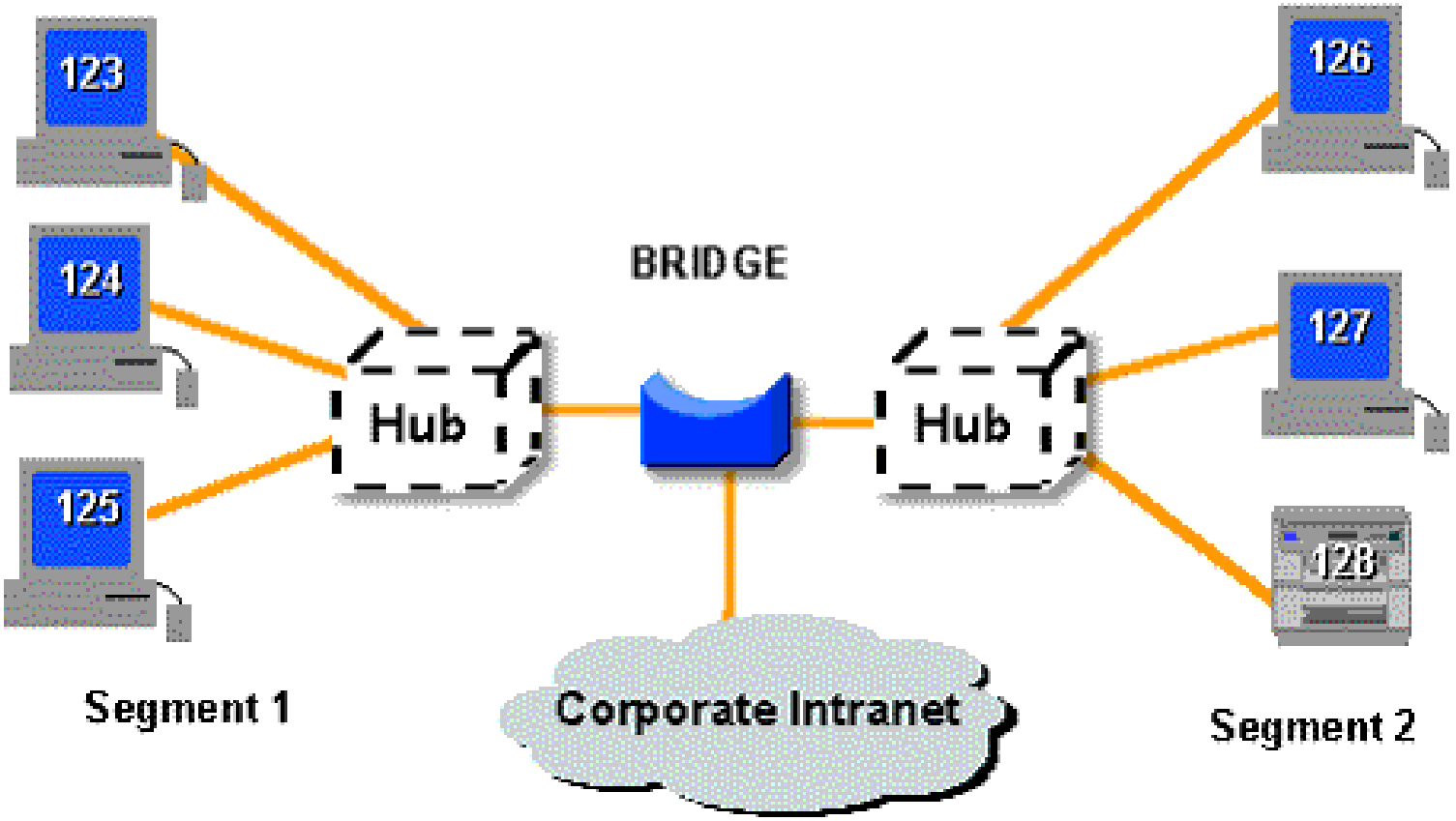
Bridge

Device that connects and passes packets between two network segments;

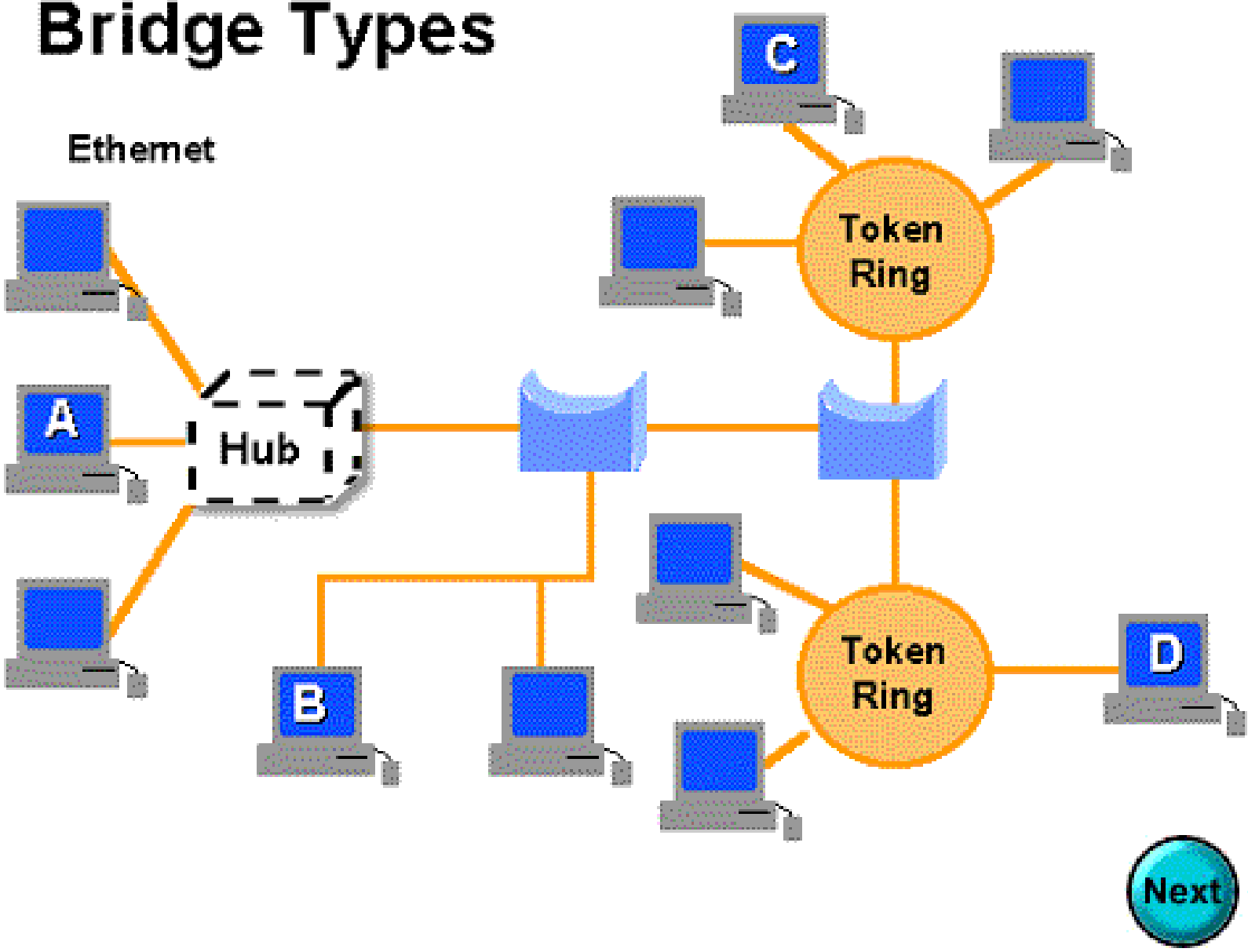
More intelligent than hub–analyze incoming packets and forwards (or drops) based on addressing information.

Next

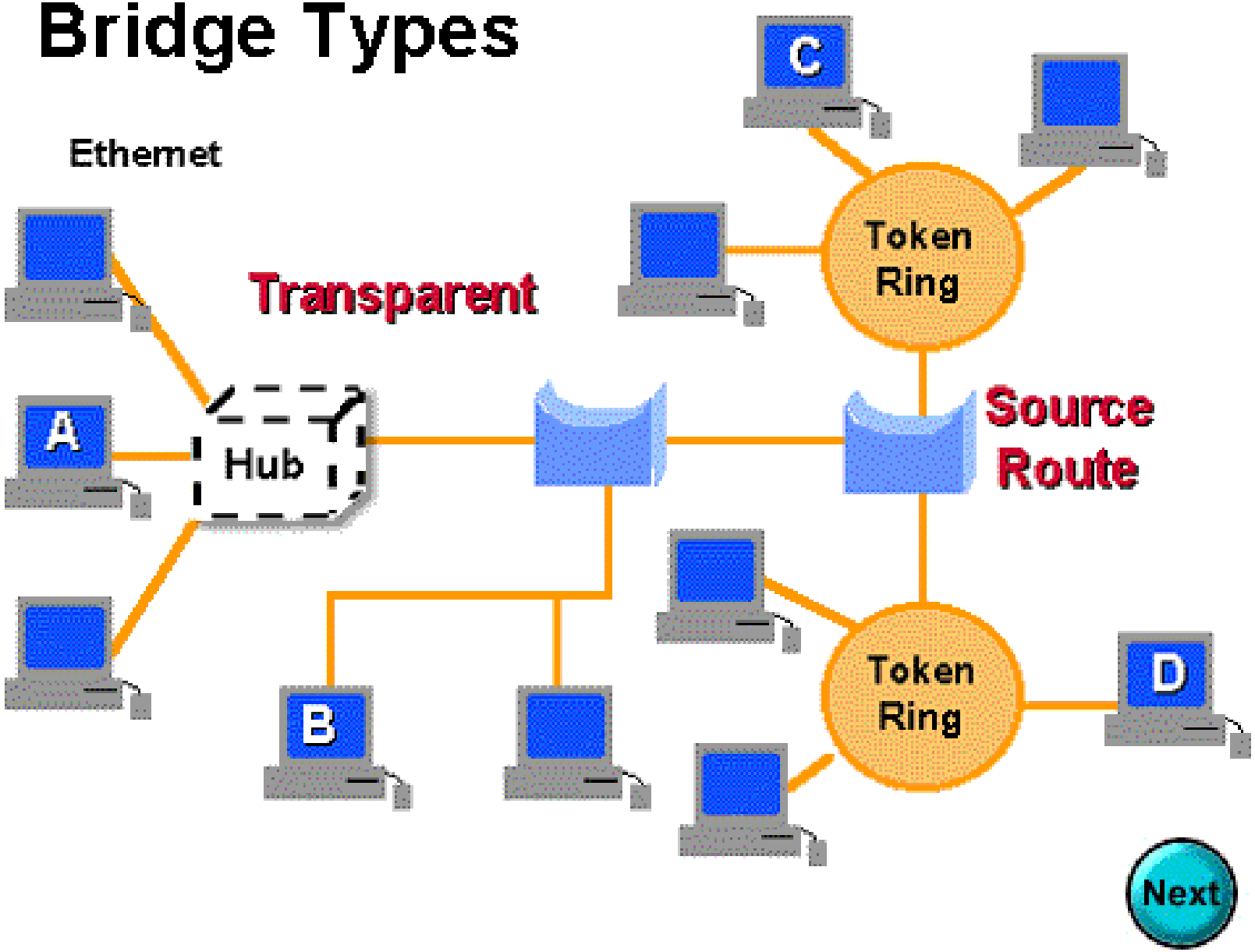
Bridge Example



Bridge Types



Bridge Types

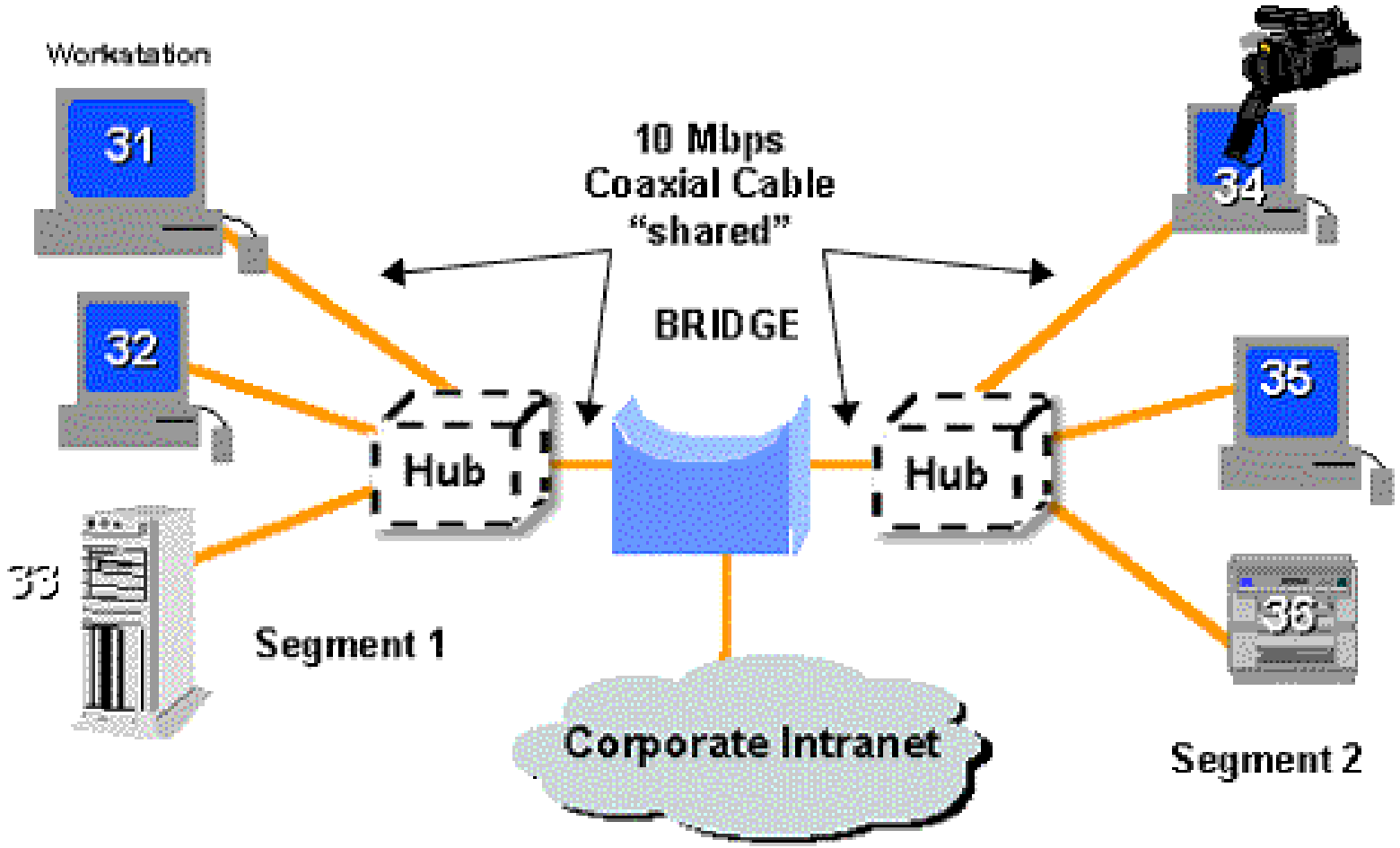


Bridge Summary

- More intelligent than a hub--can analyze incoming packets and forward (or drop) based on addressing information
- Collect and pass packets between two network segments
- Control broadcasts to the network
- Maintains address tables
- Different types of bridges--
  - Transparent
  - Source Route (used primarily in Token Ring LANs

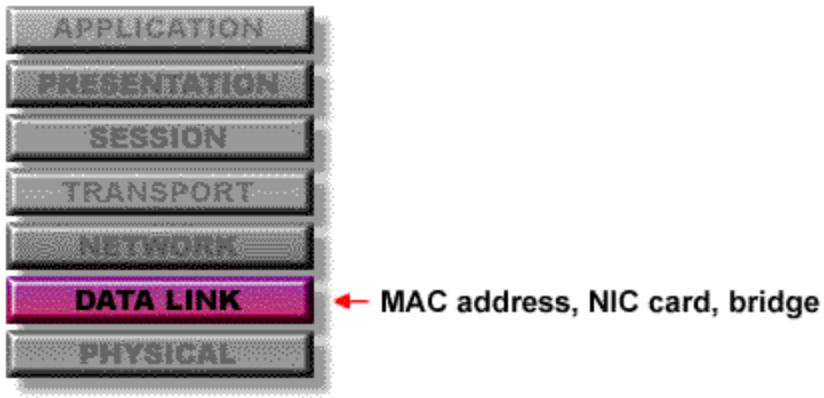
Next

Bridging – Shared Media

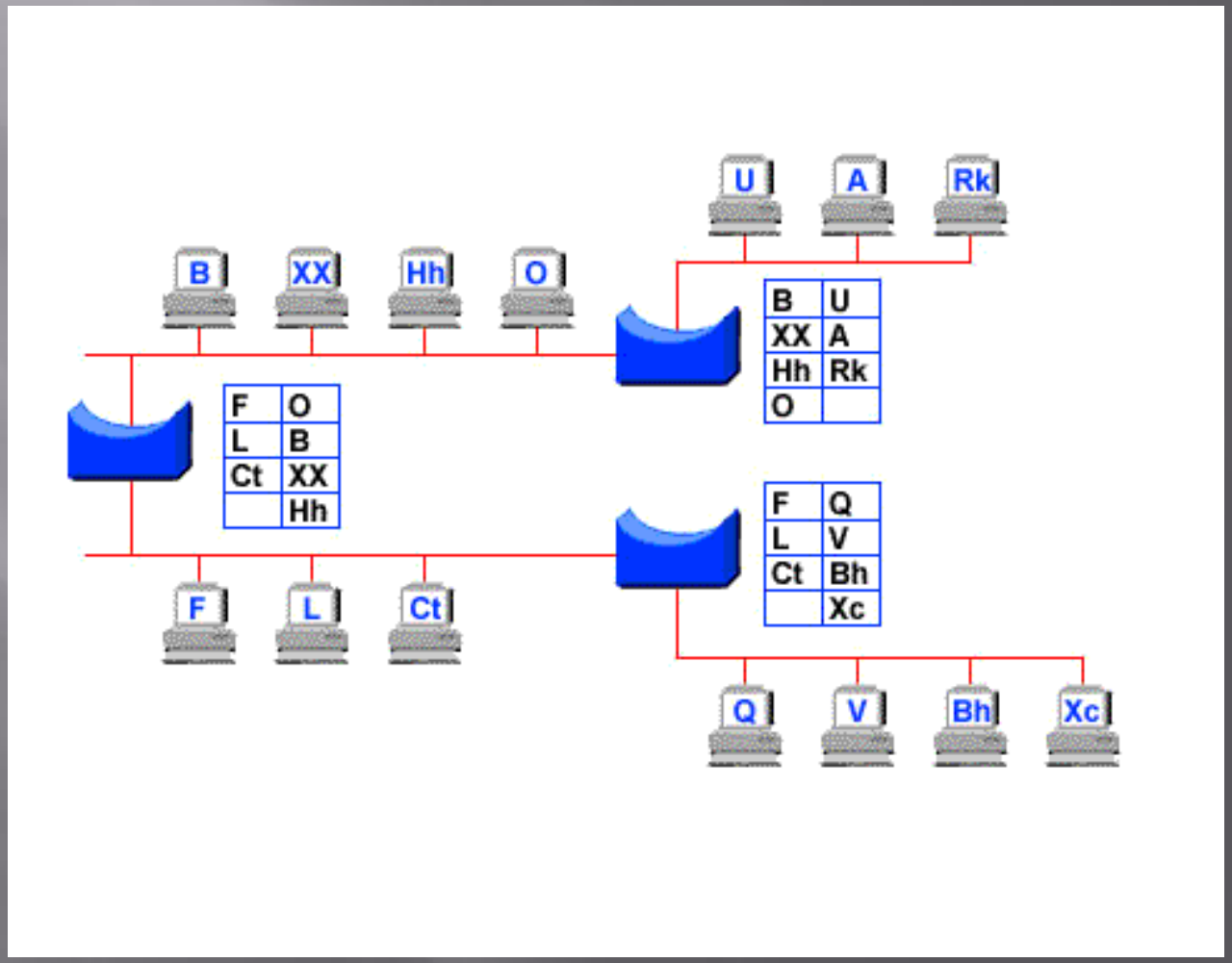


At what layer of the OSI model do bridges operate?

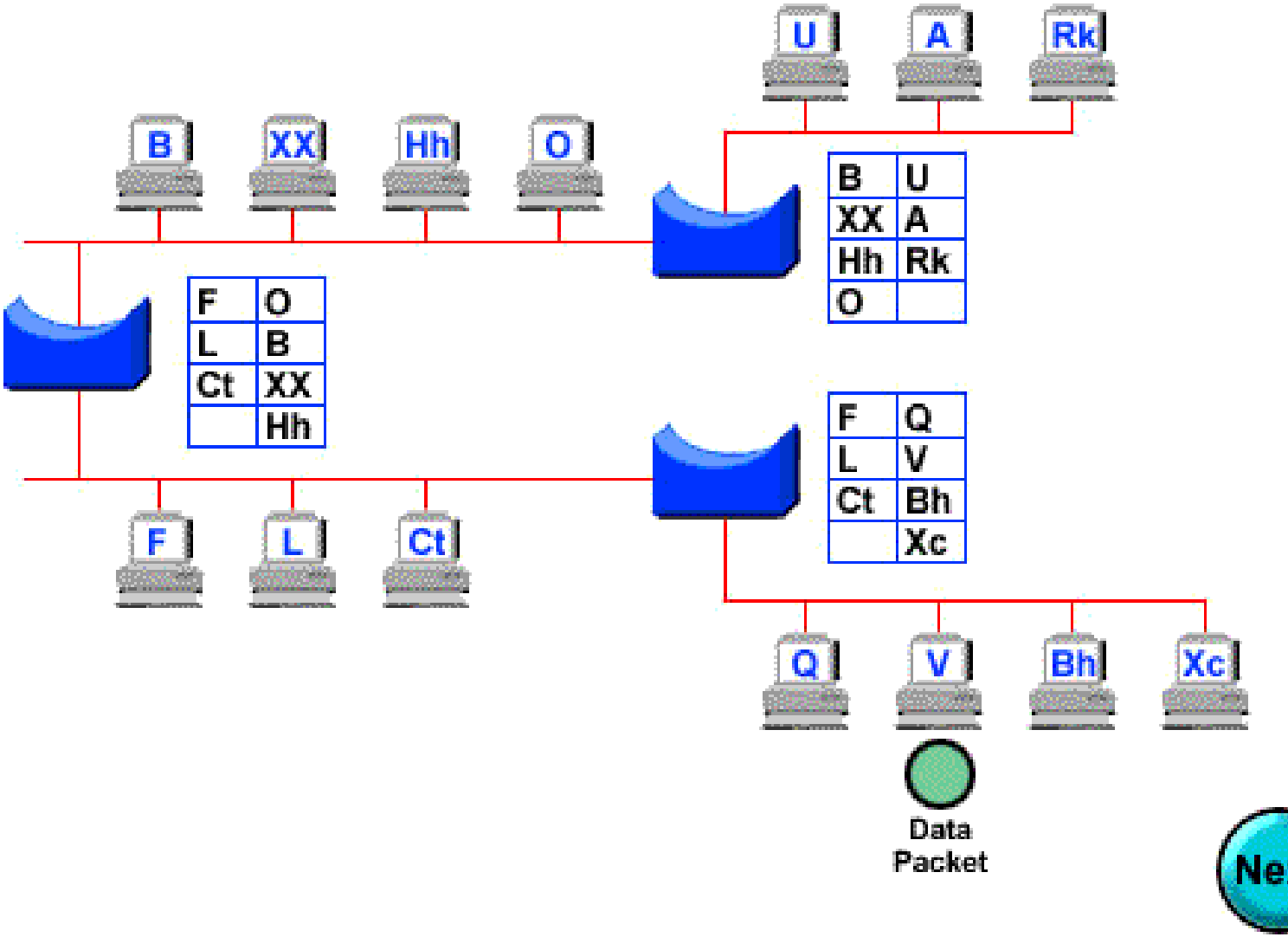
- Because bridges operate at the data link layer, layer 2, they are not required to examine upper-layer inf



How do bridges filter network traffic?



In this example, a data packet originates from Computer V and its destination is Computer Xc.



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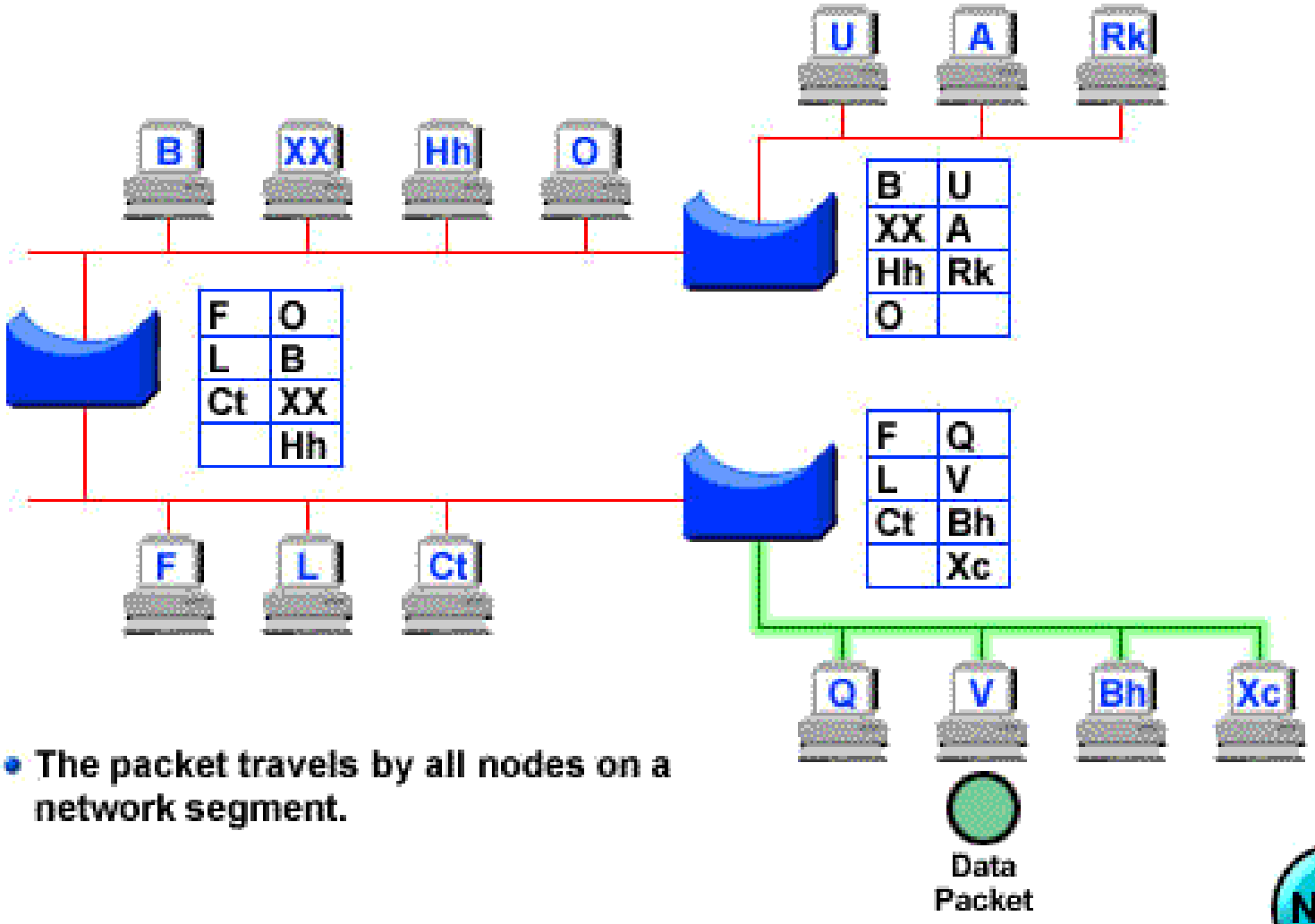
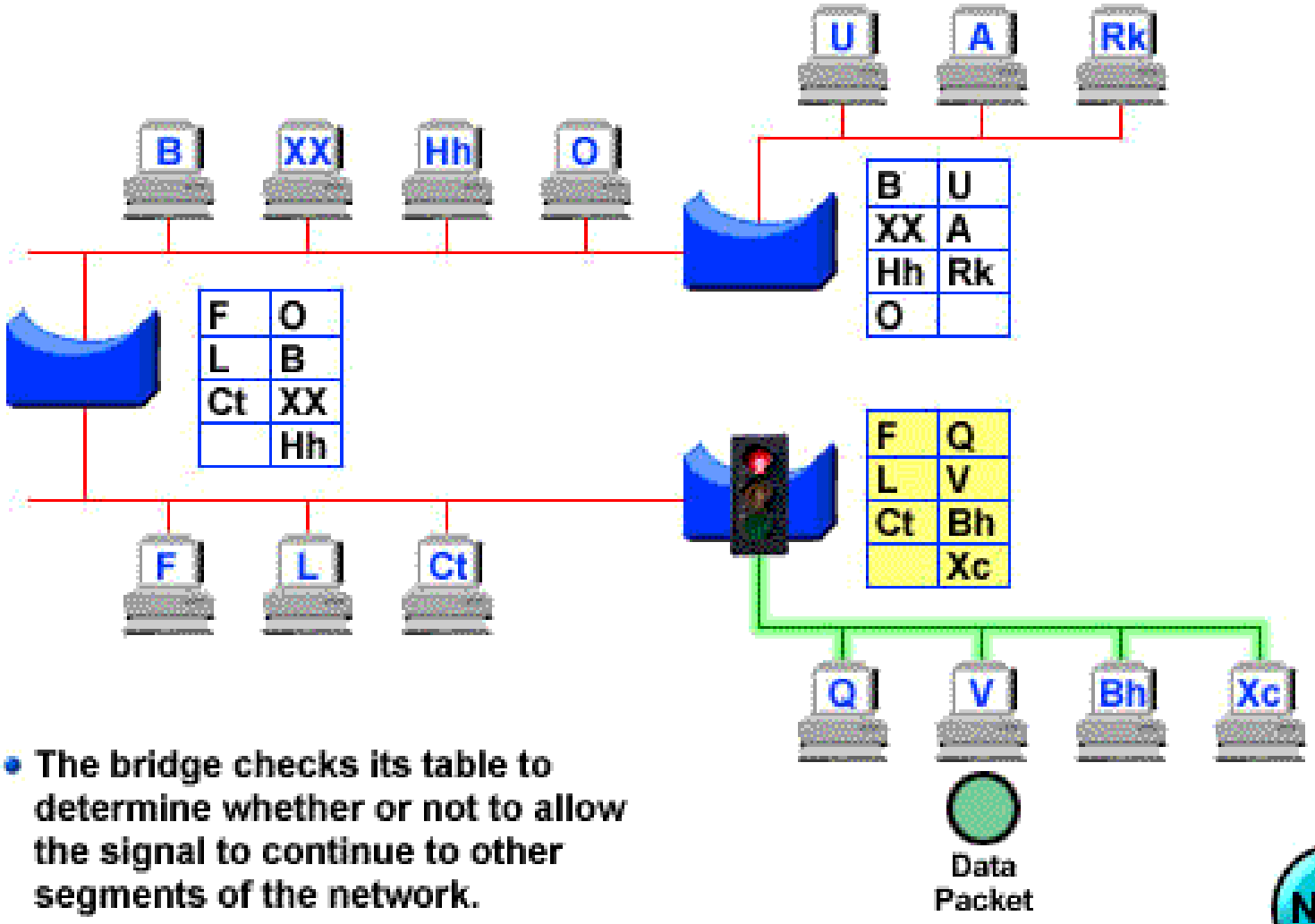


- The packet travels by all nodes on a network segment.

Next

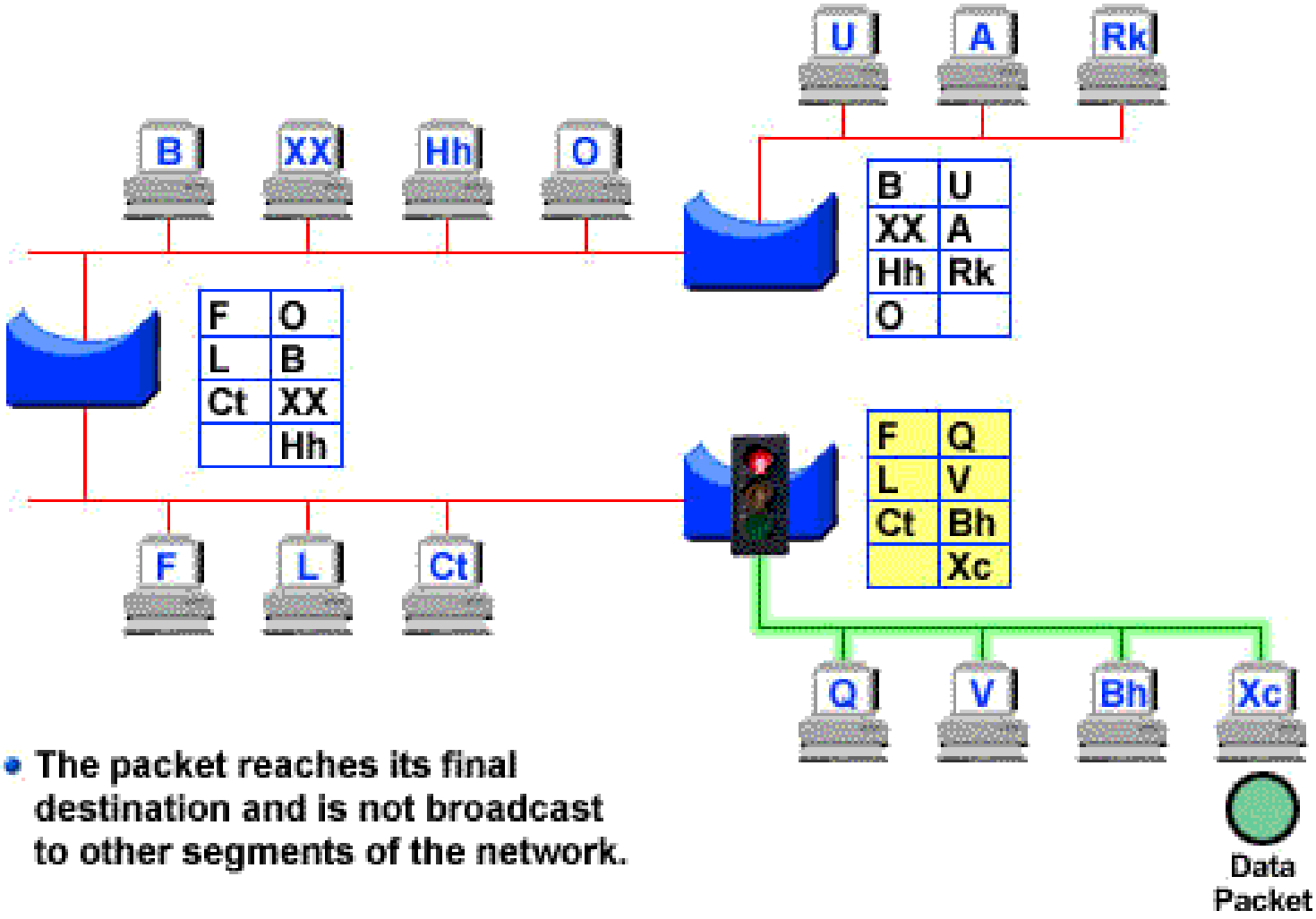
In this example, a data packet originates from Computer V and its destination is Computer Xc.



- The bridge checks its table to determine whether or not to allow the signal to continue to other segments of the network.

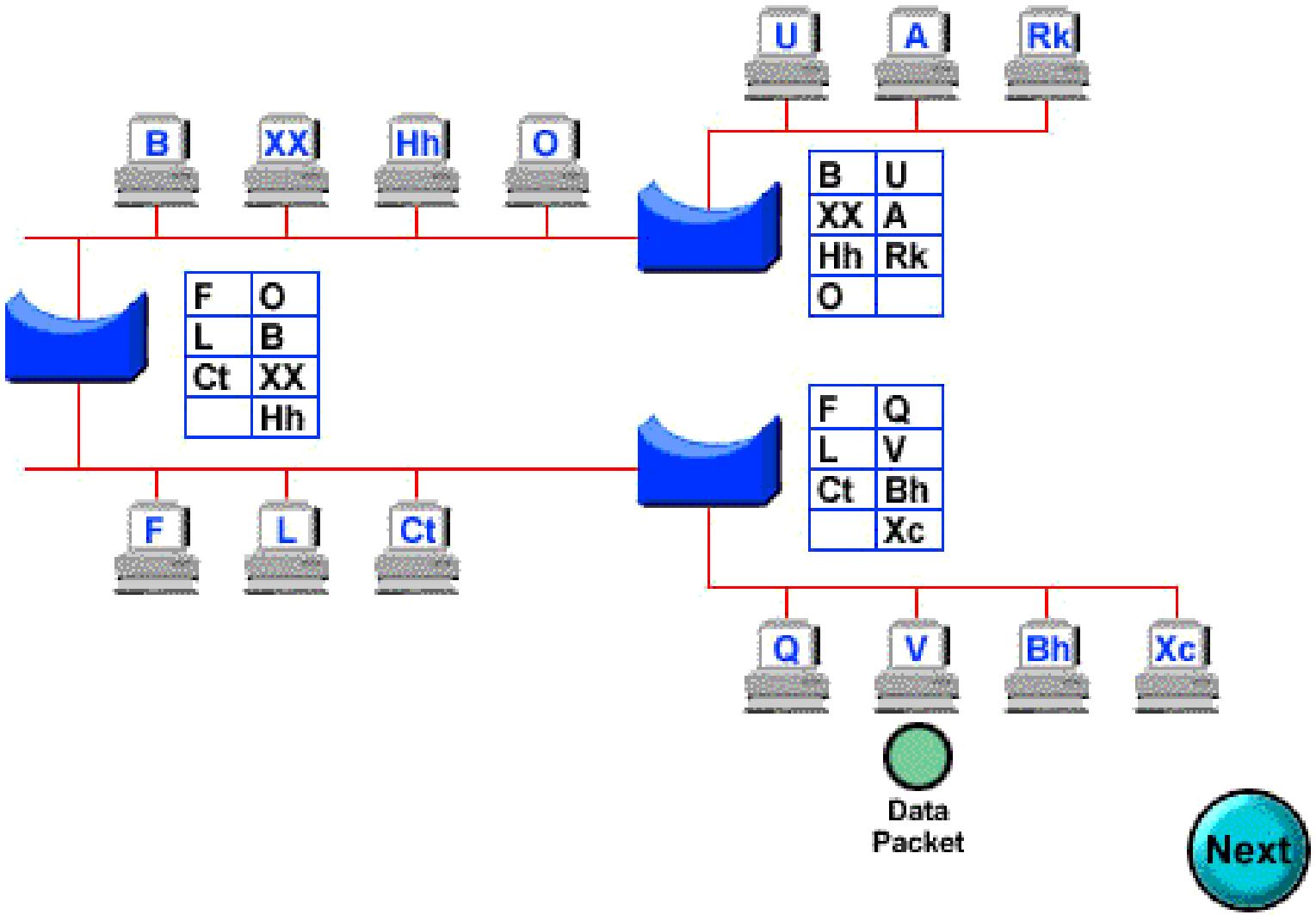
Next

In this example, a data packet originates from Computer V and its destination is Computer Xc.

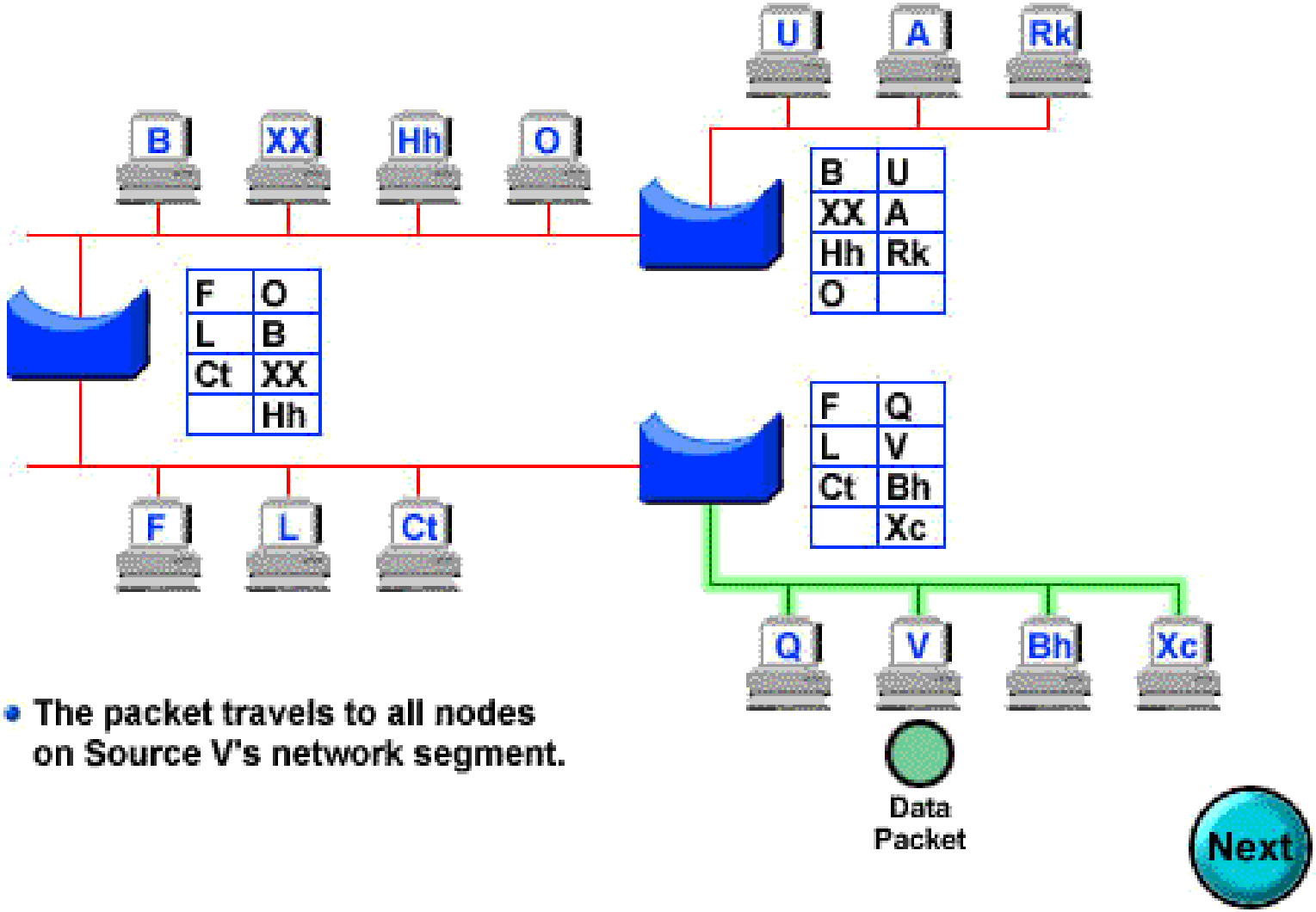


- The packet reaches its final destination and is not broadcast to other segments of the network.

In this example, a data packet originates from Computer V and its destination is Computer Hh.



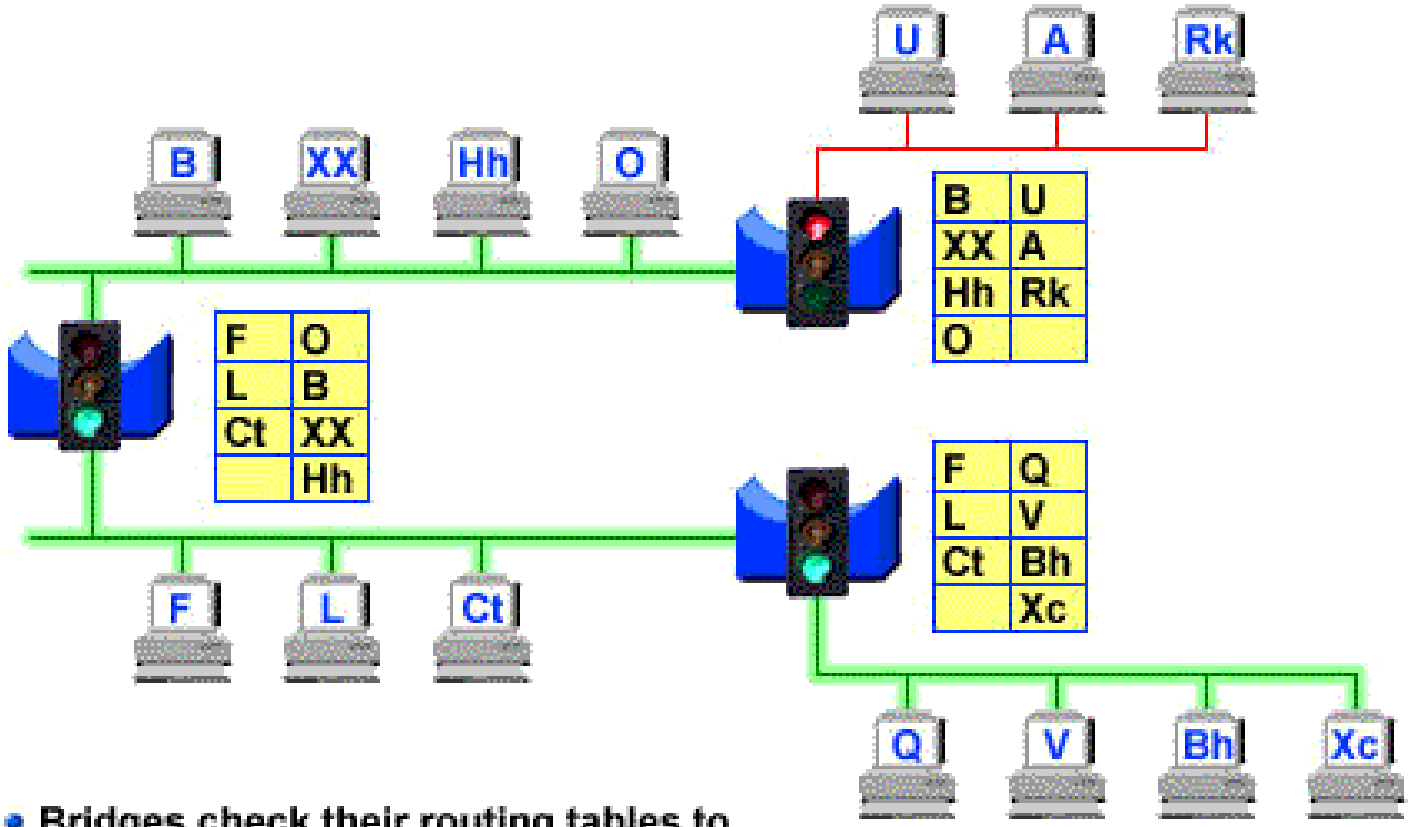
In this example, a data packet originates from Computer V and its destination is Computer Hh.



- The packet travels to all nodes on Source V's network segment.

Next

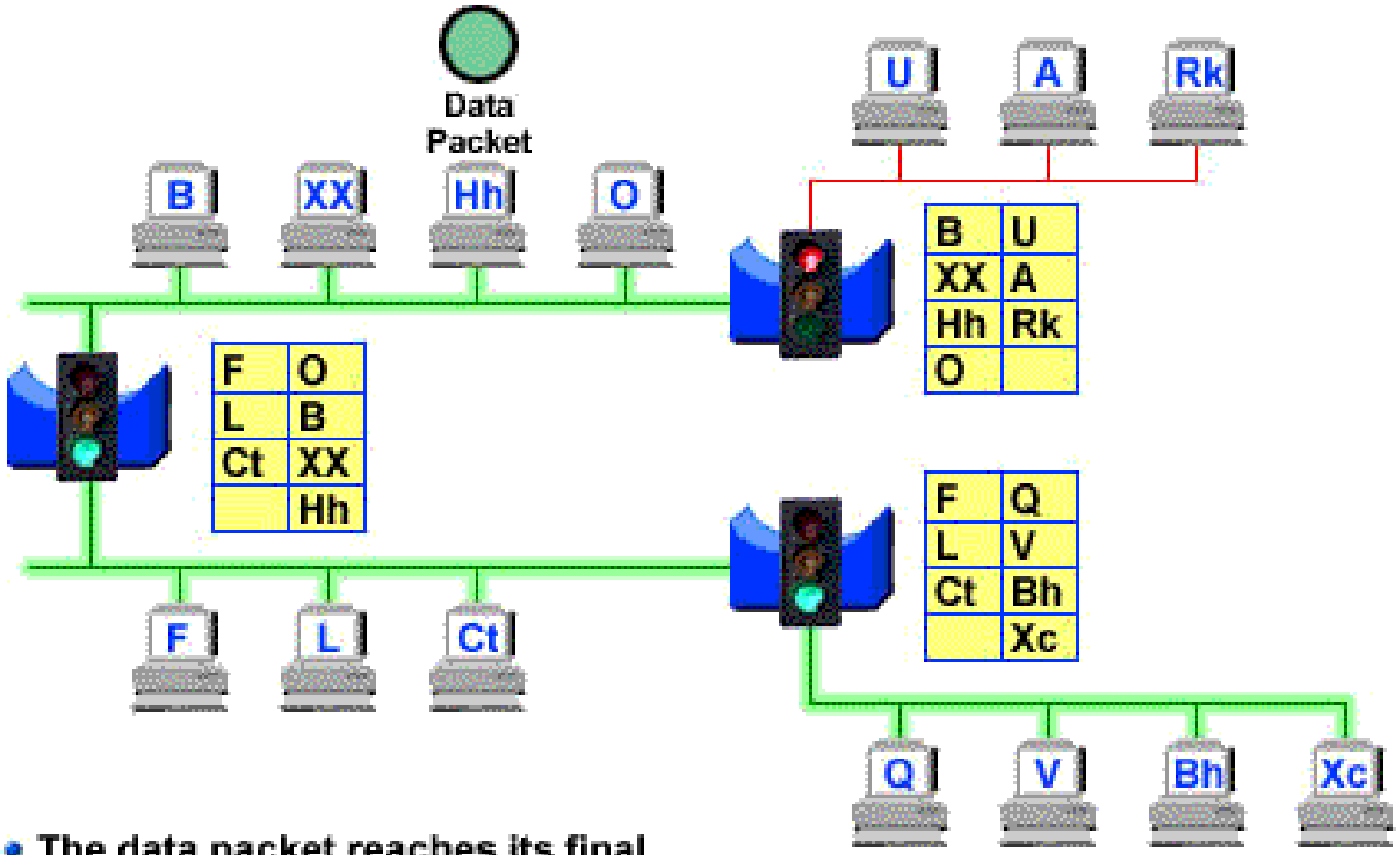
In this example, a data packet originates from Computer V and its destination is Computer Hh.



- Bridges check their routing tables to determine whether or not to allow the signal to continue to other segments of the network.

Next

In this example, a data packet originates from Computer V and its destination is Computer Hh.



- The data packet reaches its final destination.