



*Routing Table, Distance Vector
Routing & RIP*



UNICAST ROUTING PROTOCOLS

A routing table can be either static or dynamic. A static table is one with manual entries. A dynamic table is one that is updated automatically when there is a change somewhere in the Internet. A routing protocol is a combination of rules and procedures that lets routers in the Internet inform each other of changes.

Figure-2

Autonomous systems

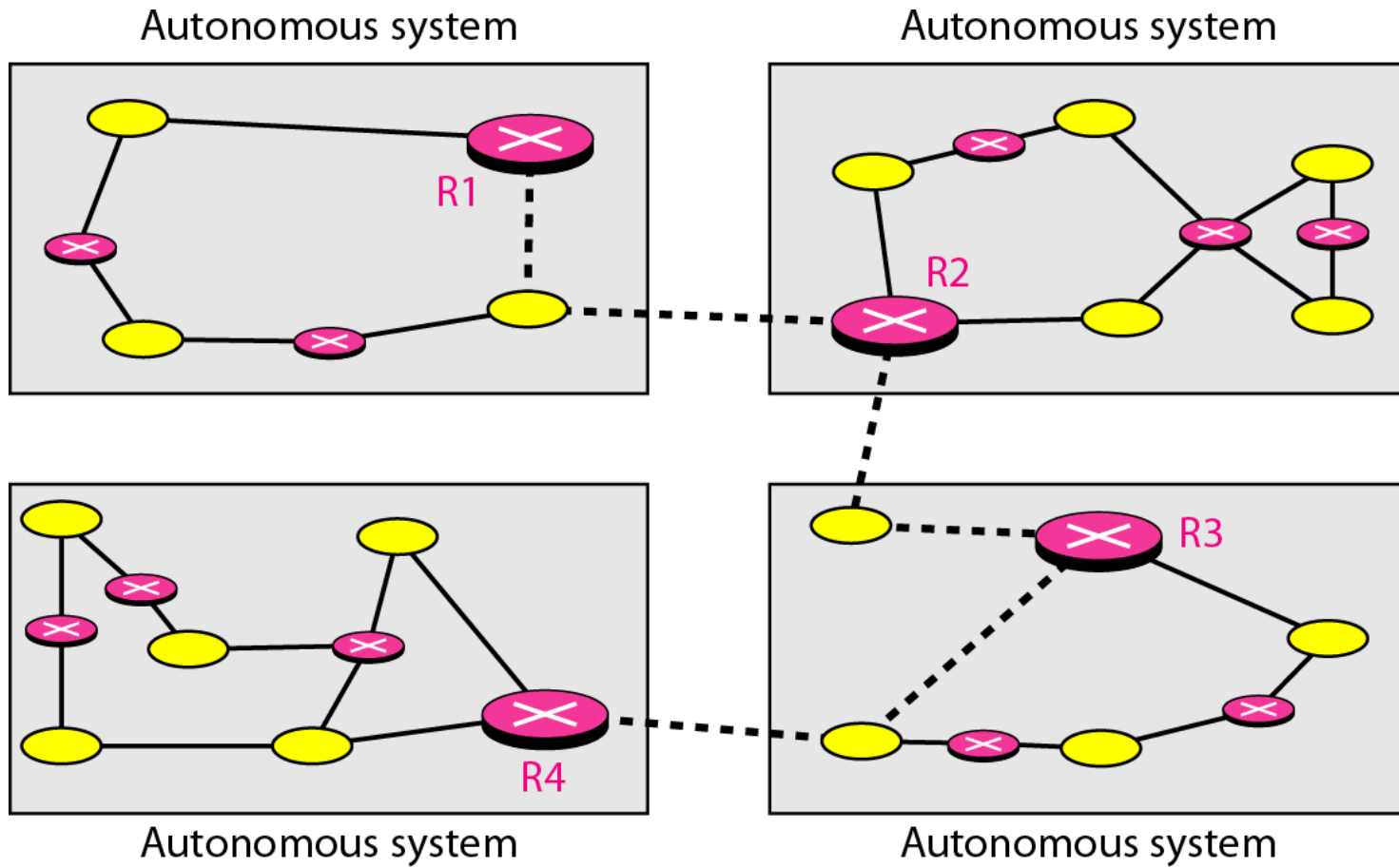


Figure-3

Popular routing protocols

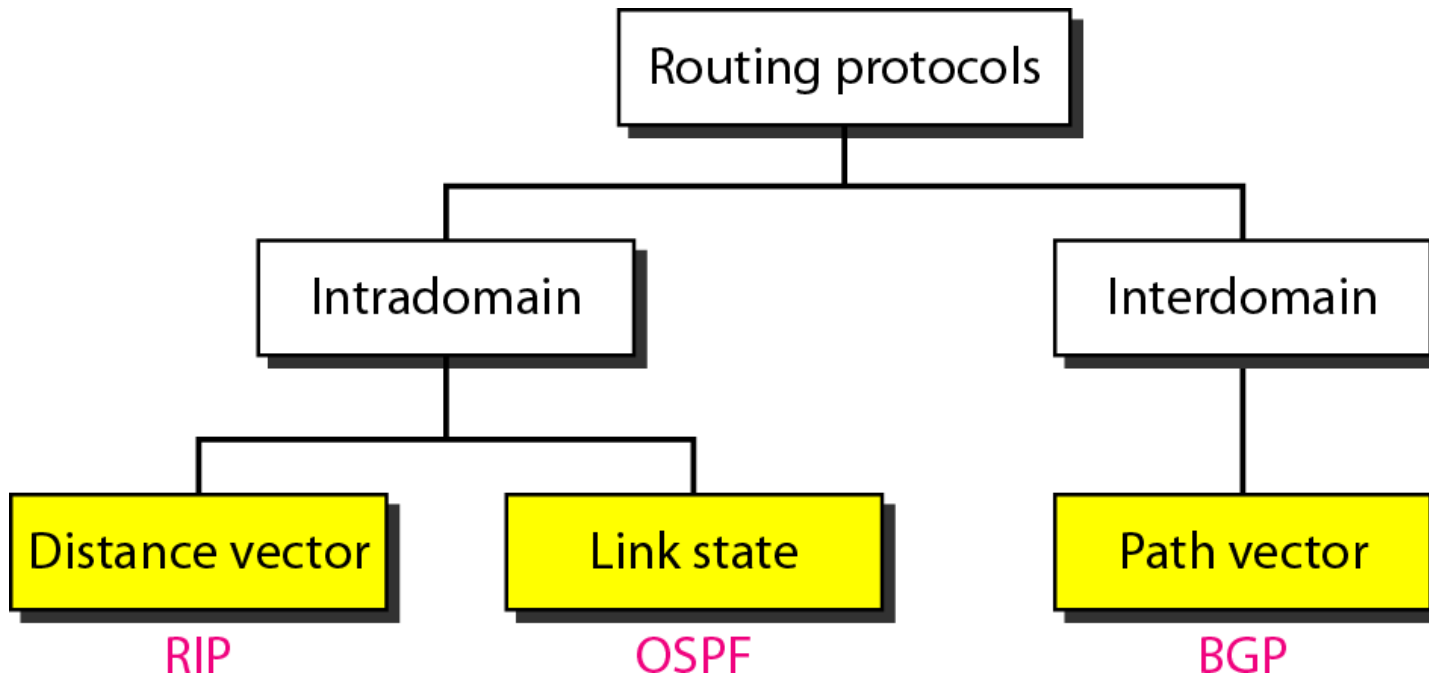


Figure-4

Distance vector routing tables

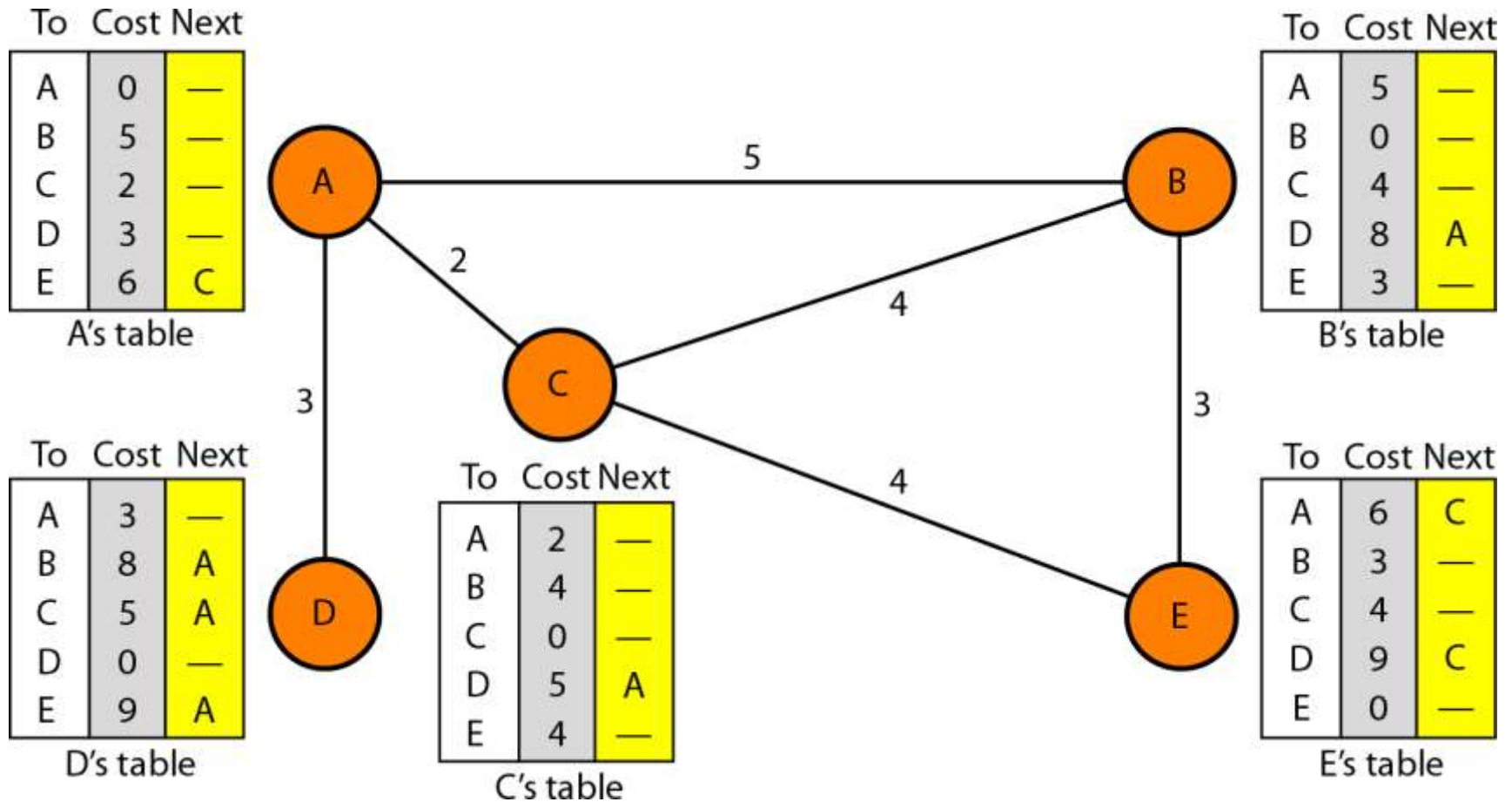
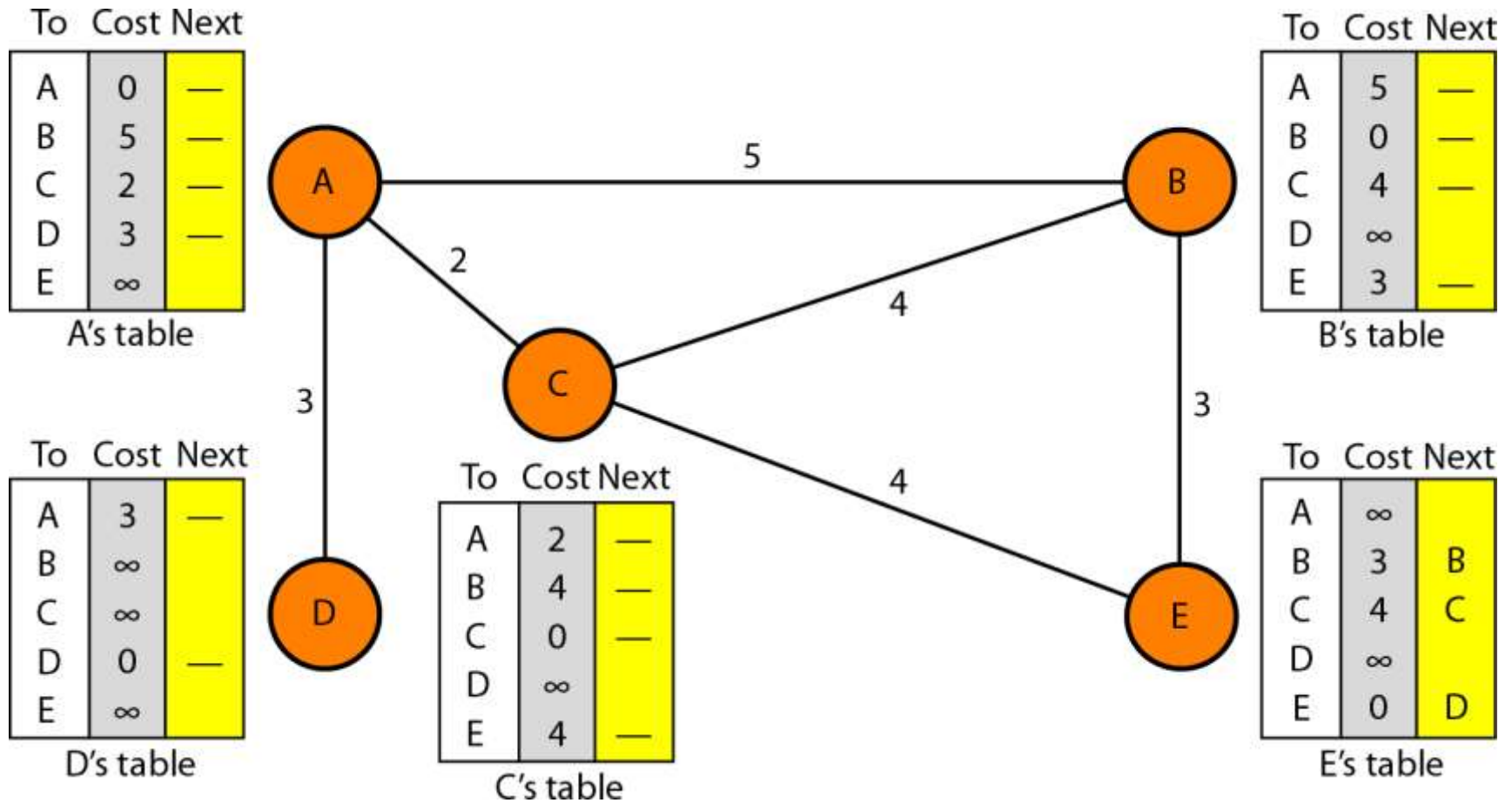


Figure-5*Initialization of tables in distance vector routing*



Note

In distance vector routing, each node shares its routing table with its immediate neighbors periodically and when there is a change.

Figure-6

Updating in distance vector routing

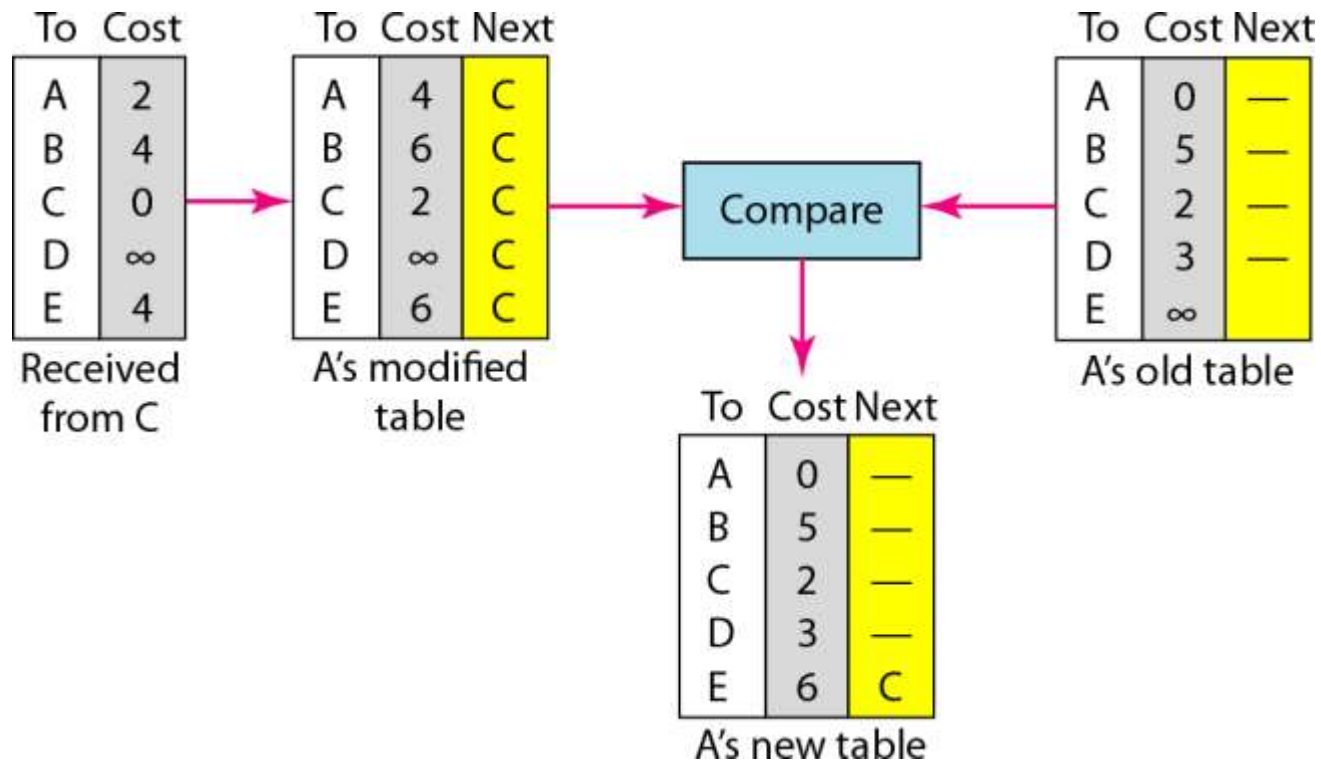


Figure-7

Two-node instability

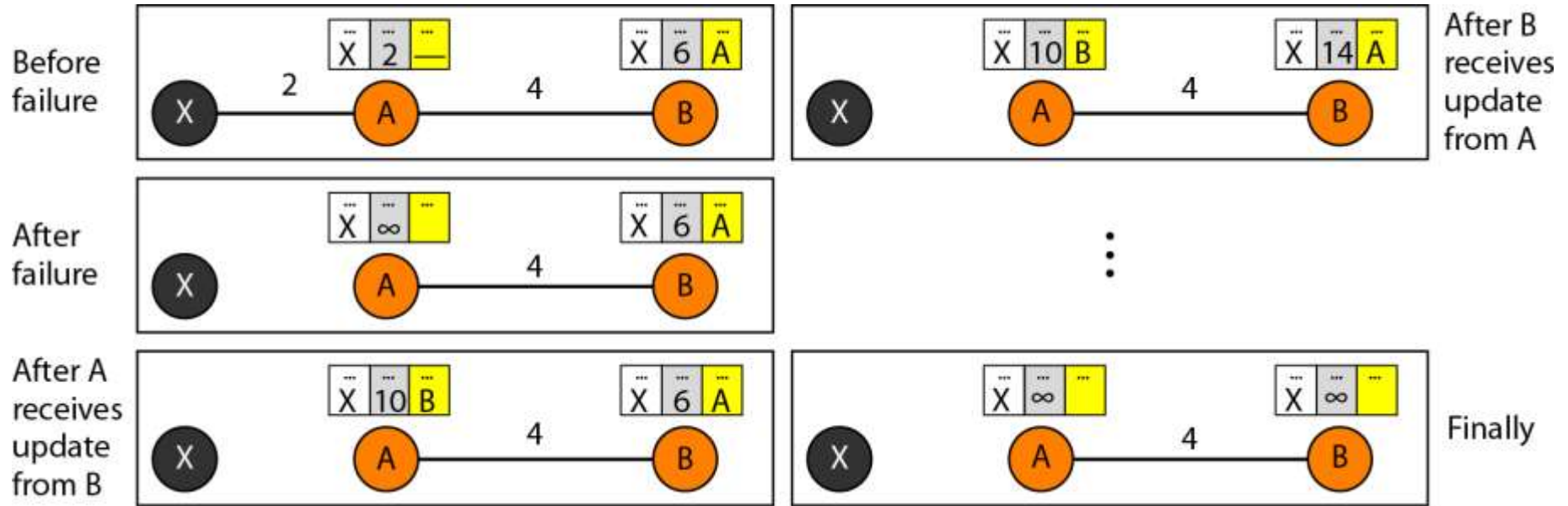


Figure-8

Three-node instability

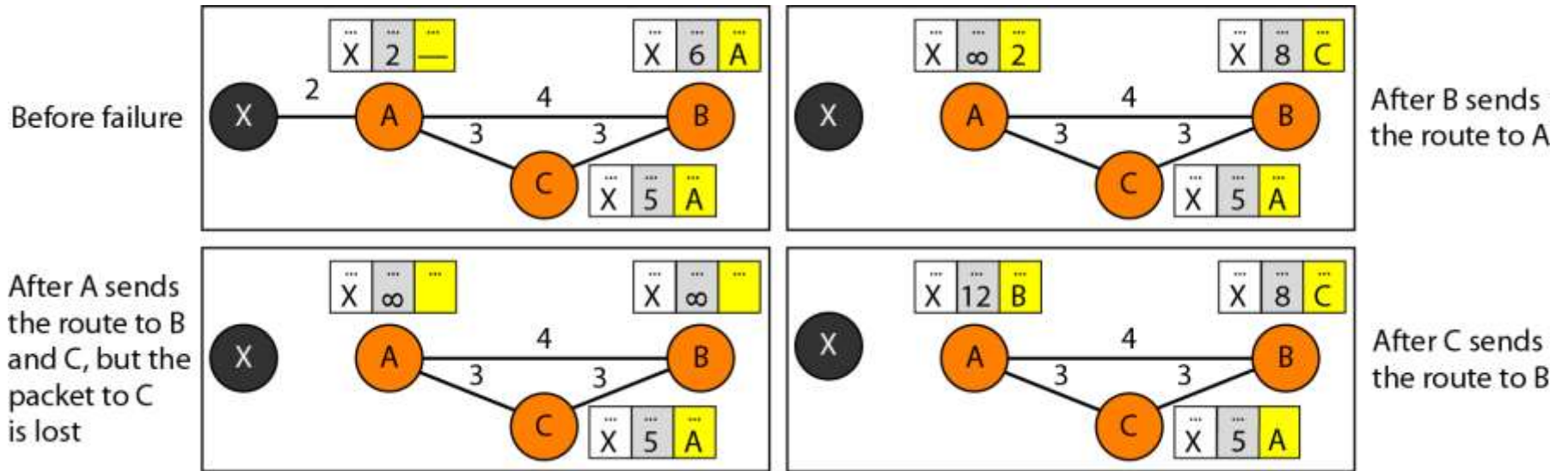
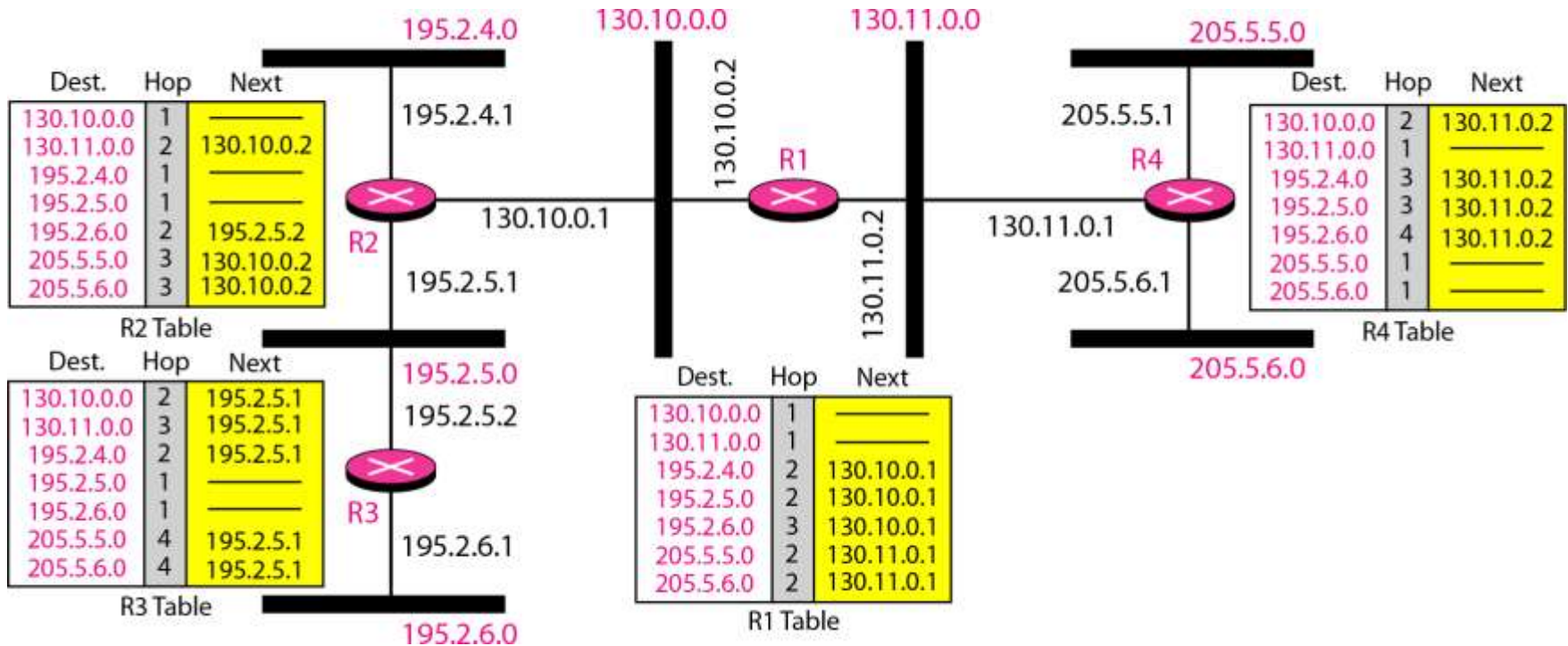


Figure-9*Example of a domain using RIP*

References

- 1. Computer Networks, A. S. Tenenbaum, D. J. Wetheral, Pearson India.***
 - 2. Data Communications and Networking, B.A. Forouzan, Tata McGraw Hill Education Private Limited.***
 - 3. Data and Computer Communications, William Stallings, Pearson-Prentice Hall.***
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