

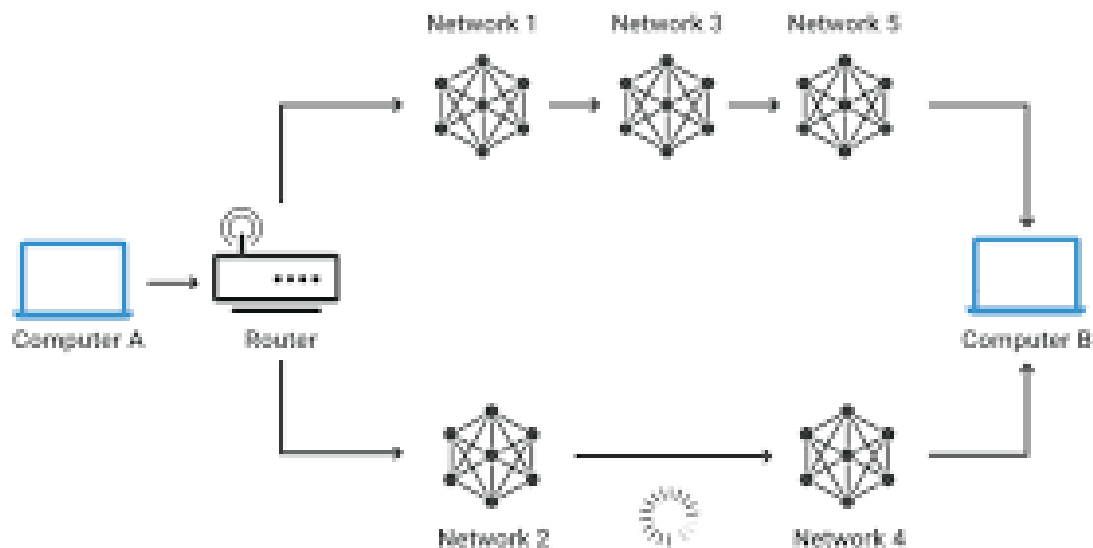
# Network Administration & Services

## Chapter 3

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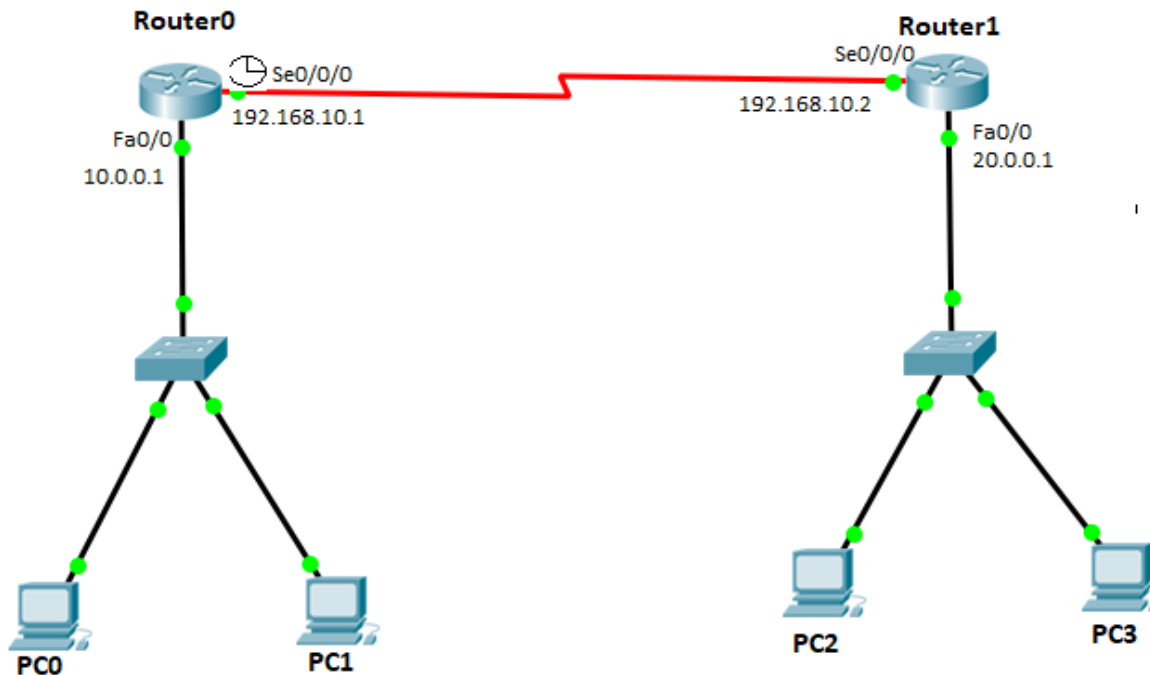
# Routing

- Routing is the process of selecting a path for traffic in a network or between or across multiple networks. Broadly, routing is performed in many types of networks, including circuit-switched networks, such as the public switched telephone network, and computer networks, such as the Internet



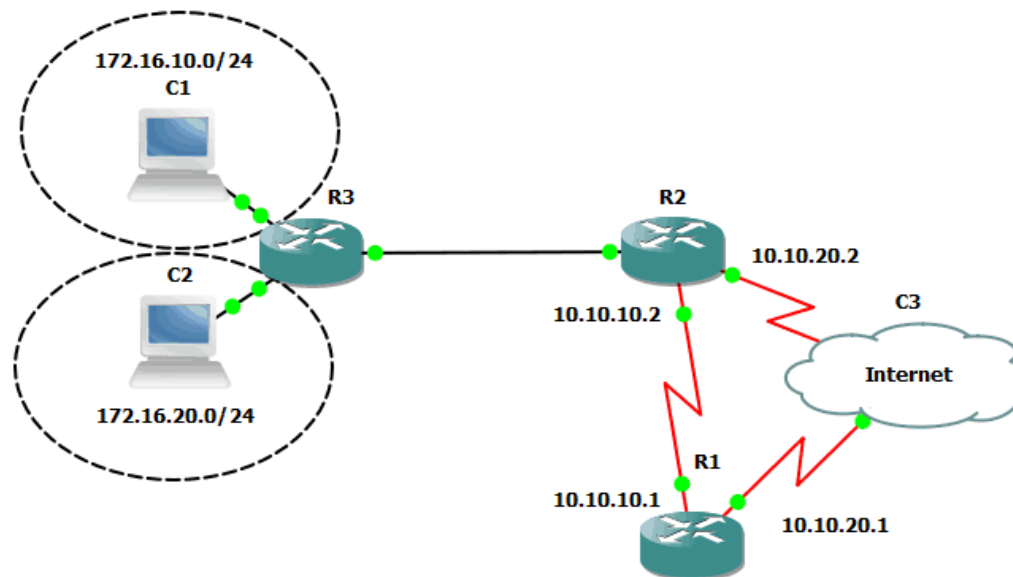
# Configure IP routing in network

- IP Routing is an umbrella term **for the set of protocols that determine the path that data follows in order to travel across multiple networks from its source to its destination.** Data is routed from its source to its destination through a series of routers, and across multiple networks.



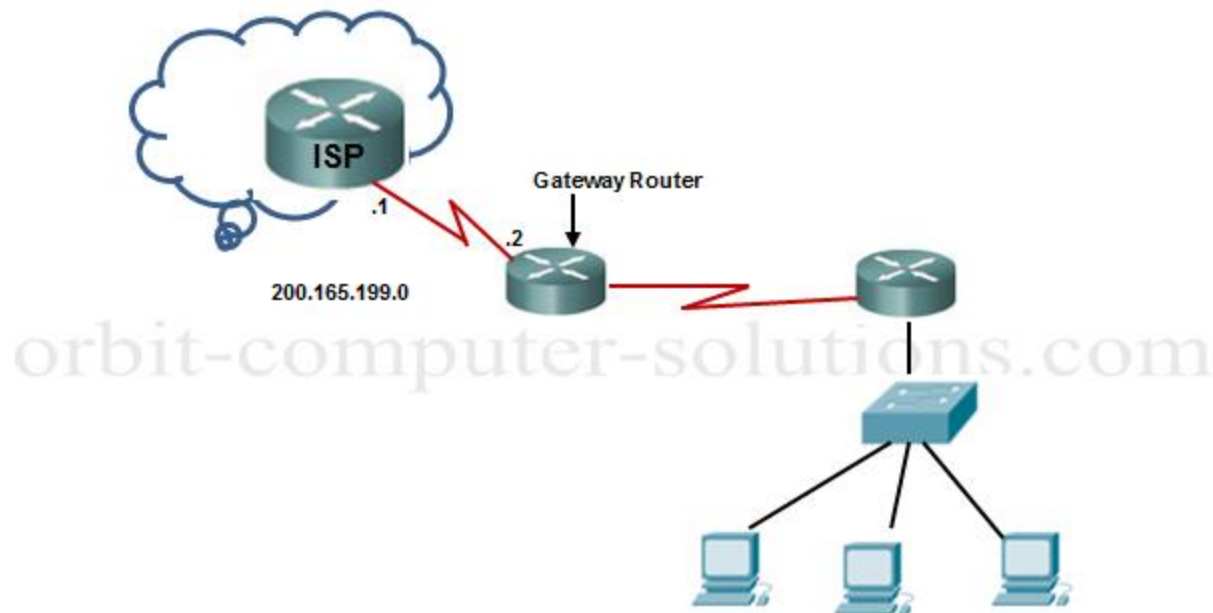
# Static routing

- Static routing is a form of routing that occurs when a router uses a manually-configured routing entry, rather than information from dynamic routing traffic. In many cases, static routes are manually configured by a network administrator by adding in entries into a routing table, though this may not always be the case.



# Default routing

- A default route is **the route that takes effect when no other route is available for an IP destination address**. The network with the longest subnet mask that matches the destination IP address is the next-hop network gateway. The default route in IPv4 is designated as 0.0. 0.0/0 or simply 0/0.



# Dynamic routing

- Dynamic routing is a technique in which a router learns about routing information without an administrator's help and adds the best route to its routing table. A router running a dynamic routing protocol adds the best route to its routing table and can also determine another path if the primary route goes down

