

Subnet Mask Definition:

Every device has an IP address with two pieces: the client or host address and the server or network address. IP addresses are either configured by a DHCP server or manually configured (static IP addresses). The subnet mask splits the IP address into the host and network addresses, thereby defining which part of the IP address belongs to the device and which part belongs to the network.

The device called a gateway or default gateway connects local devices to other networks. This means that when a local device wants to send information to a device at an IP address on another network, it first sends its packets to the gateway, which then forwards the data on to its destination outside of the local network.

Distance Vector

A distance-vector routing (DVR) protocol requires that a router inform its neighbors of topology changes periodically. Historically known as the old ARPANET routing algorithm (or known as Bellman-Ford algorithm).

Information kept by DV router -

Each router has an ID

Associated with each link connected to a router,
there is a link cost (static or dynamic).

Intermediate hops

Distance Vector Table Initialization -

Distance to itself = 0

Distance to ALL other routers = infinity number.