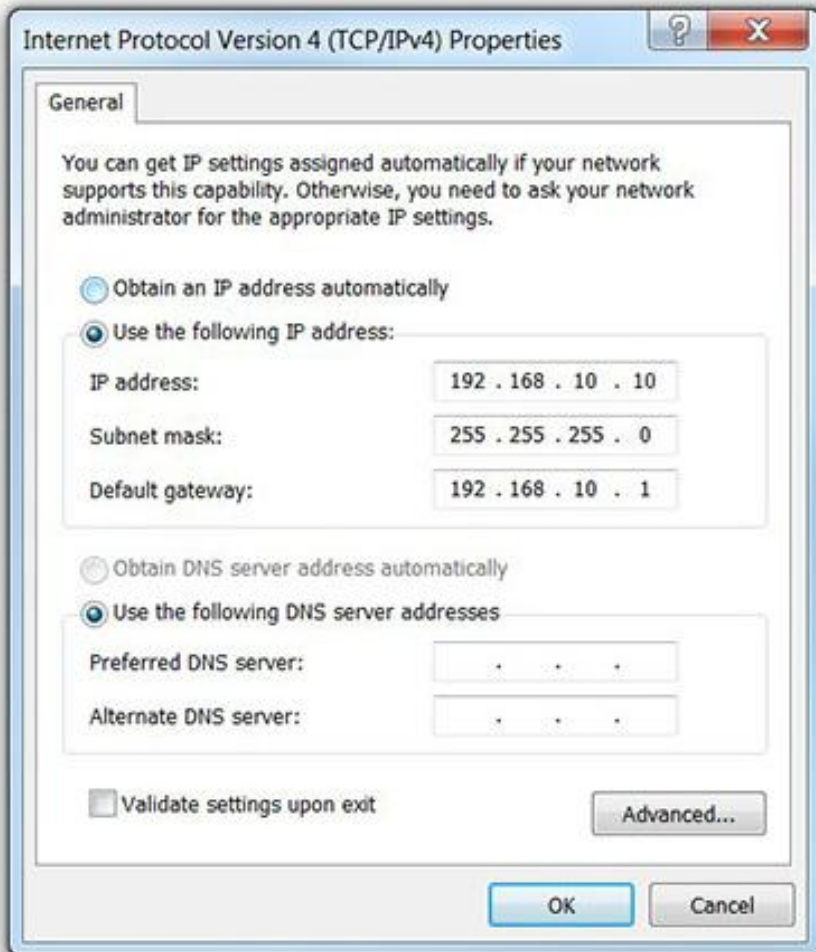# Static & Dynamic IPv4 Address Assignment to a Host

Static Assignment

Internet Protocol Version 4 (TCP/IPv4) Properties

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

○ Obtain an IP address automatically
● Use the following IP address:

IP address:	192 . 168 . 10 . 10
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	192 . 168 . 10 . 1

○ Obtain DNS server address automatically
● Use the following DNS server addresses
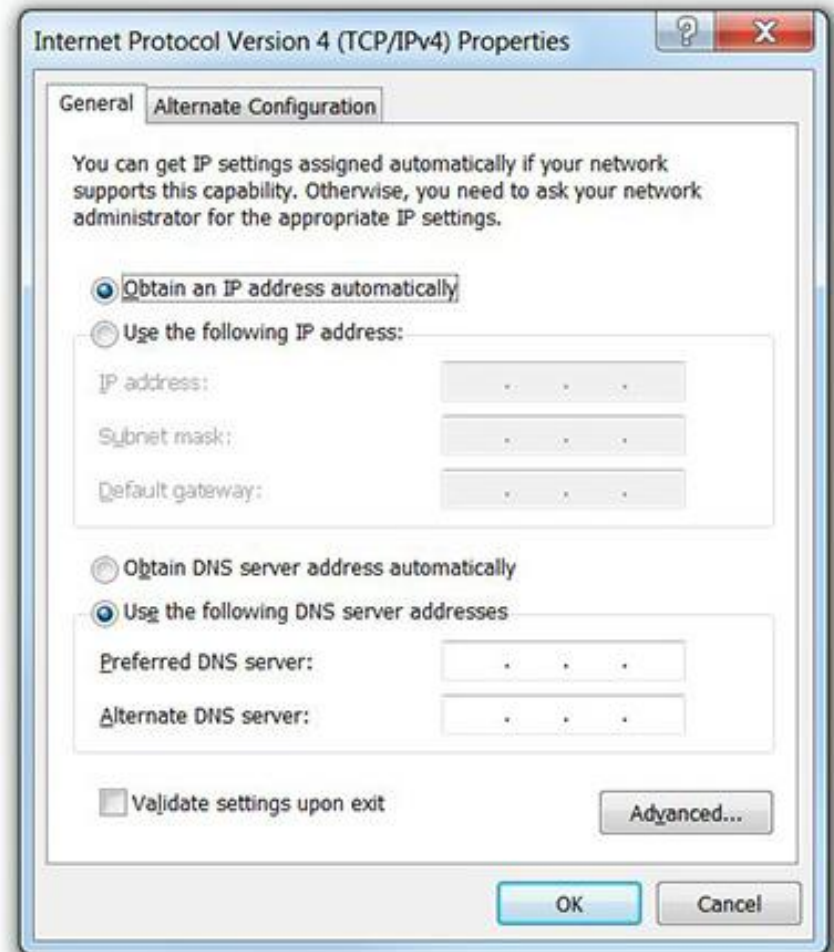
| Preferred DNS server: | . . . |
| Alternate DNS server: | . . . |

☐ Validate settings upon exit   [Advanced...]

[OK] [Cancel]

Dynamic Assignment

Internet Protocol Version 4 (TCP/IPv4) Properties

General | Alternate Configuration

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

● Obtain an IP address automatically
○ Use the following IP address:

IP address:	. . .
Subnet mask:	. . .
Default gateway:	. . .

○ Obtain DNS server address automatically
● Use the following DNS server addresses

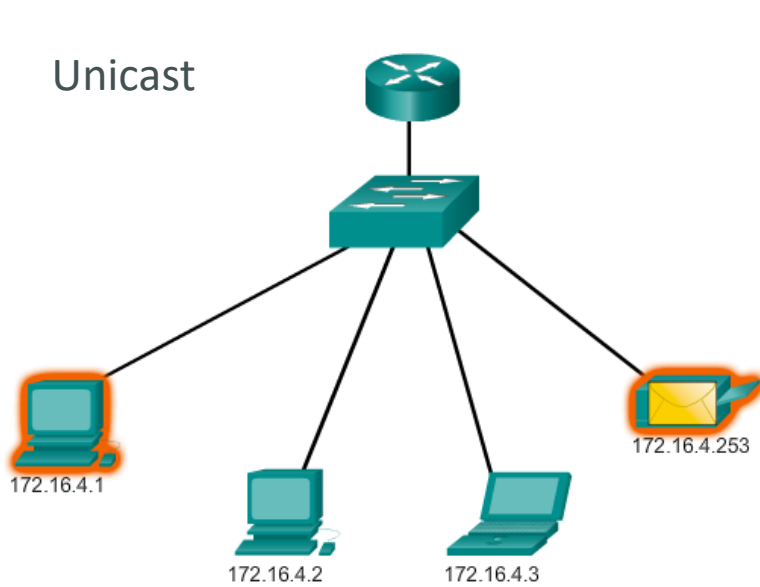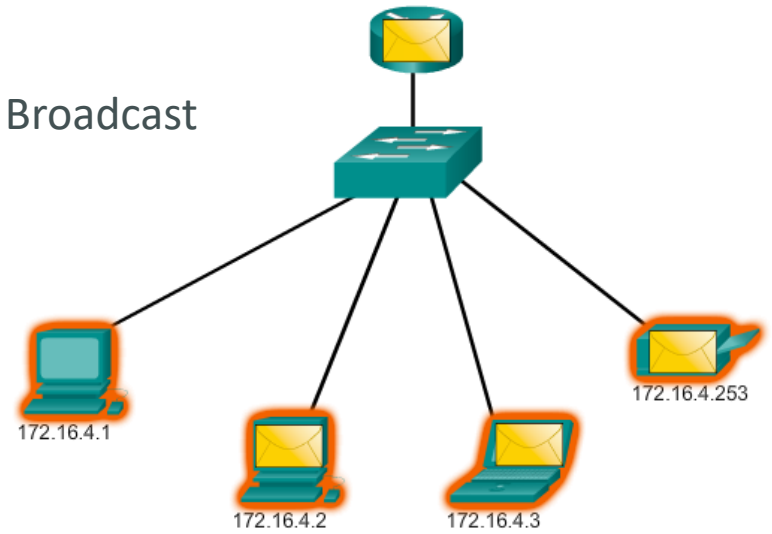| Preferred DNS server: | . . . |
| Alternate DNS server: | . . . |

☐ Validate settings upon exit   [Advanced...]

[OK] [Cancel]

IPv4 Communication

Unicast

Broadcast

Multicast

172.16.4.1

172.16.4.2

172.16.4.3

172.16.4.253

172.16.4.1

172.16.4.2

172.16.4.3

172.16.4.253

172.16.4.1

172.16.4.2

172.16.4.3
224.10.10.5

172.16.4.4
224.10.10.5

172.16.4.253
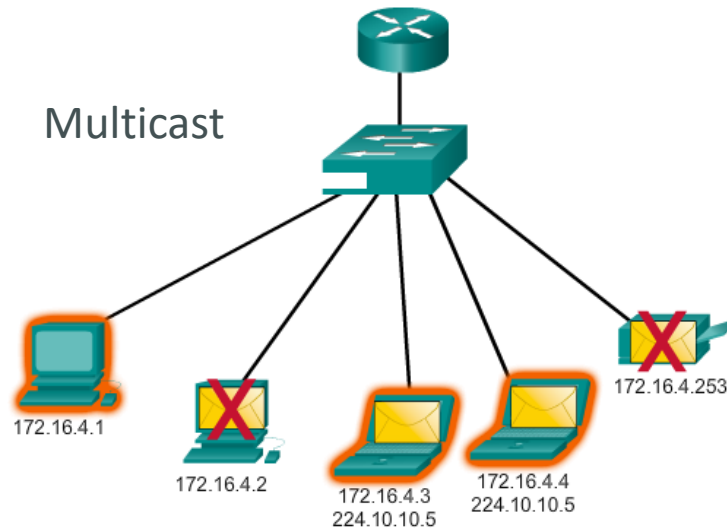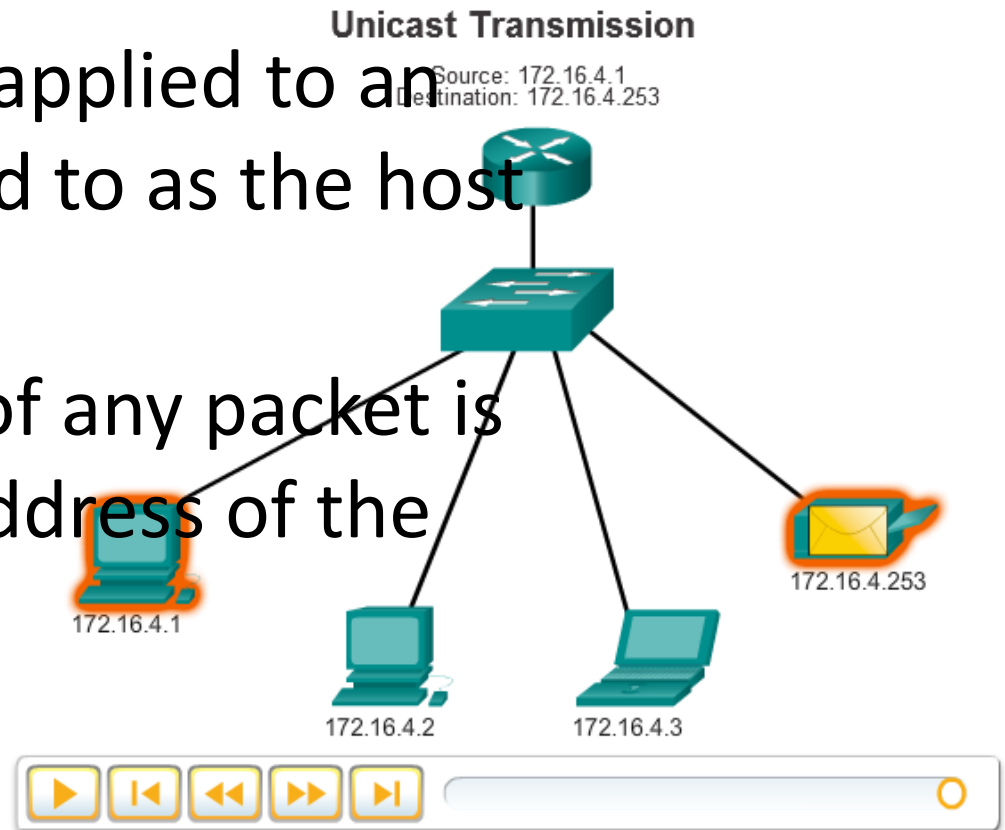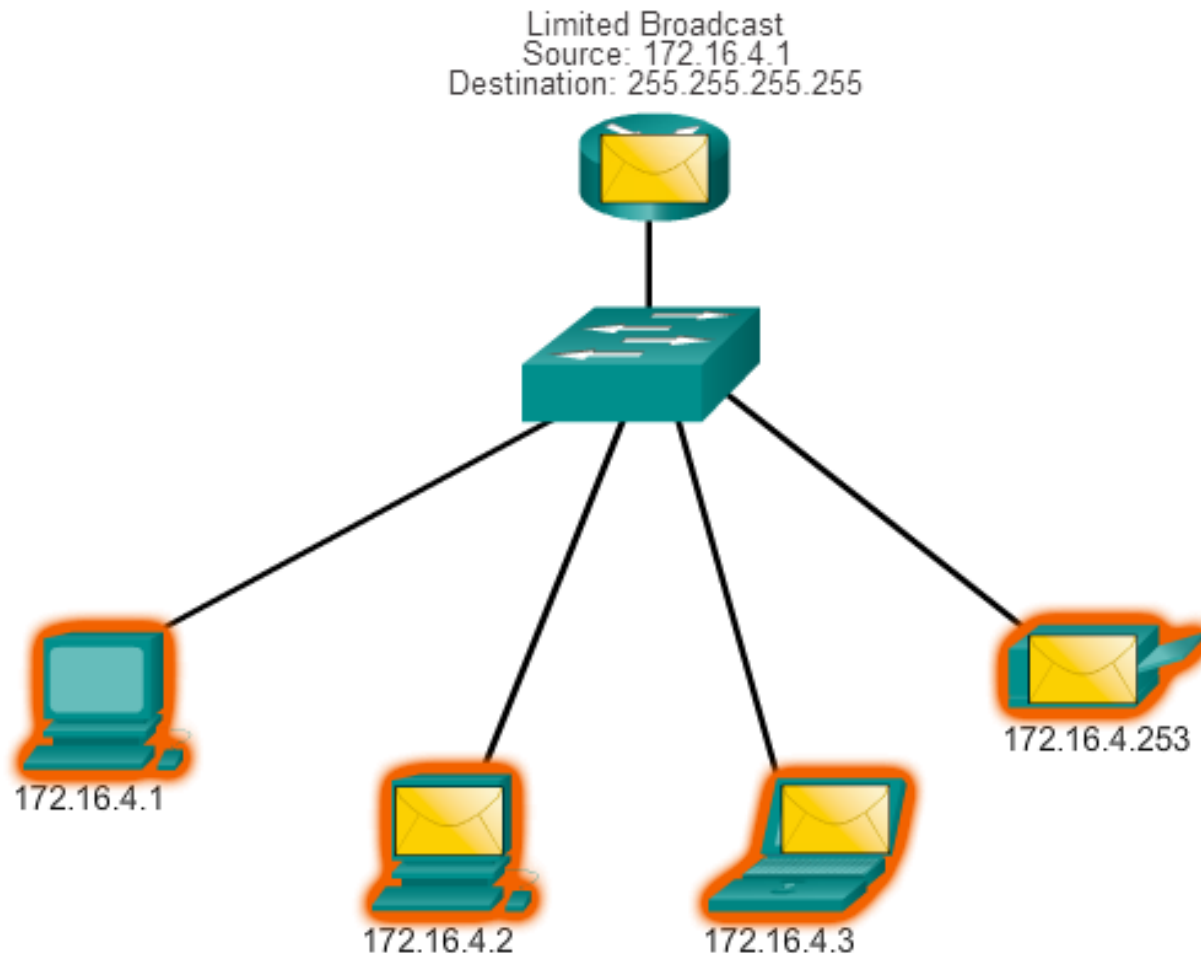
Unicast Transmission

- Unicast communication is used for normal host-to-host communication.

- The unicast address applied to an end device is referred to as the host address.

- The source address of any packet is always the unicast address of the originating host.

Unicast Transmission

Source: 172.16.4.1
Destination: 172.16.4.253

172.16.4.1

172.16.4.2   172.16.4.3

172.16.4.253

Broadcast Transmission

Limited Broadcast Transmission

Multicast Transmission

- A host sends a single packet to a selected set of hosts that subscribe to a multicast group.

- The 224.0.0.0 to 239.255.255.255 range of addresses are reserved for multicast.