# COMPUTER SYSTEM SERVICING

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# Learning Competencies:

## LO. 2 SET NETWORK CONFIGURATION

TLE_IACSS9-12SUCN-Ia-e-34

# Objectives:

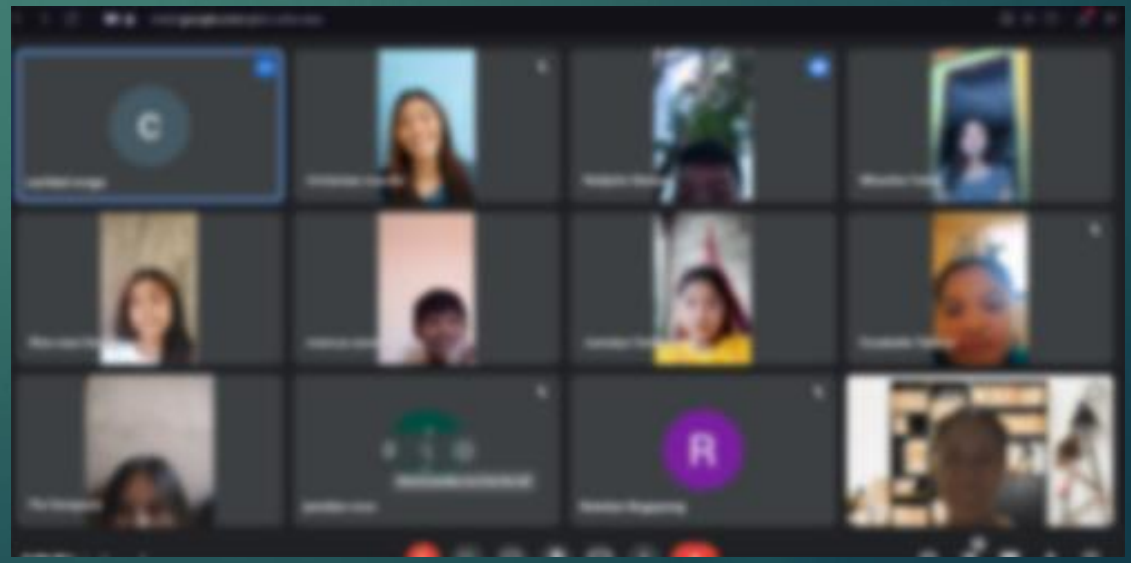
- To identify network address and broadcast address.
- Determine the types of IP address and its subnet mask.
- Calculate broadcast address.

# Computer Network

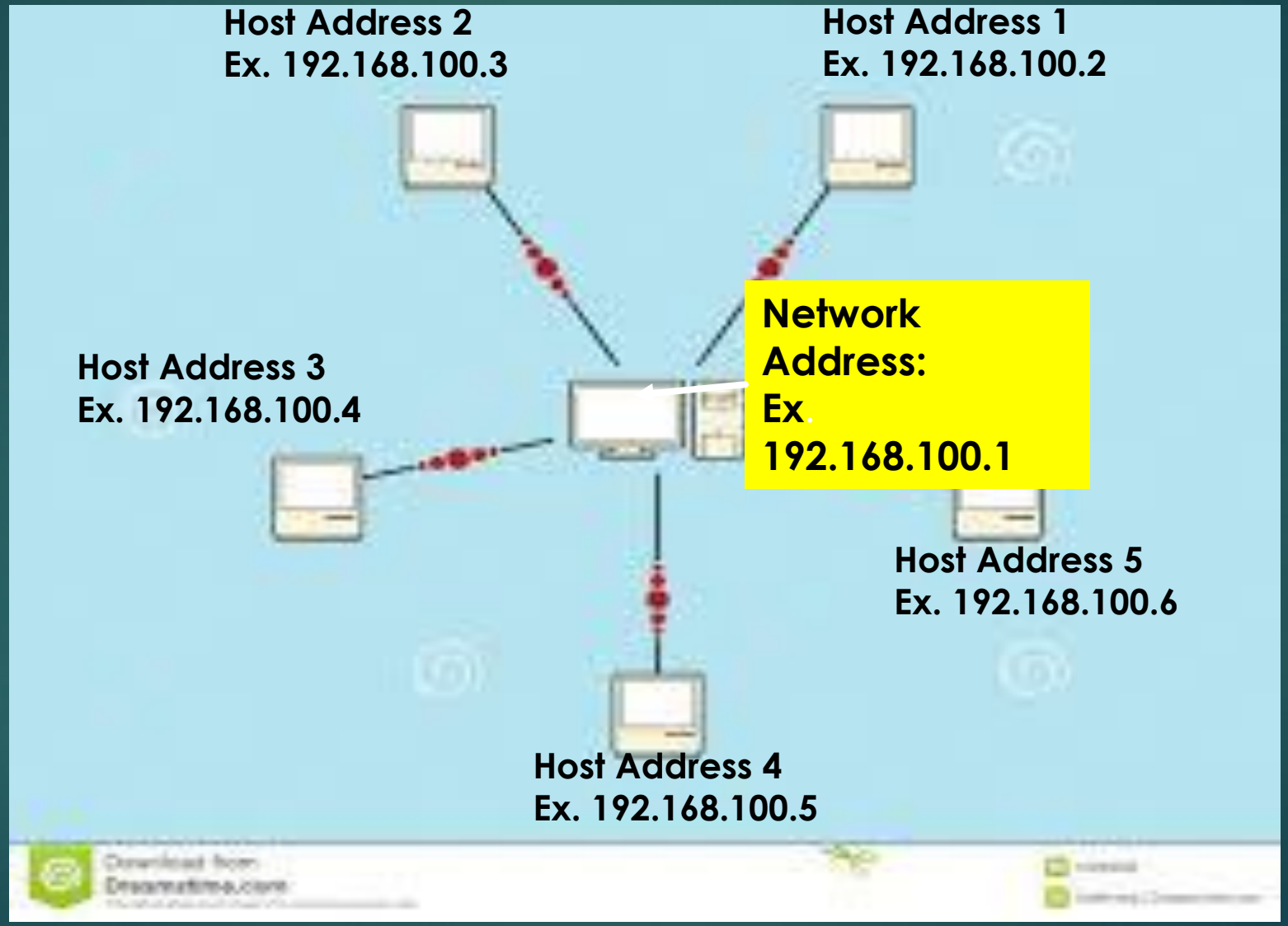
is a group of computers and various networking devices that connect to share information and resources.

chatting

Video conference



# Network Address and Host



A **network address**

is an identifier for a node or host on a telecommunications network.

**A broadcast address**

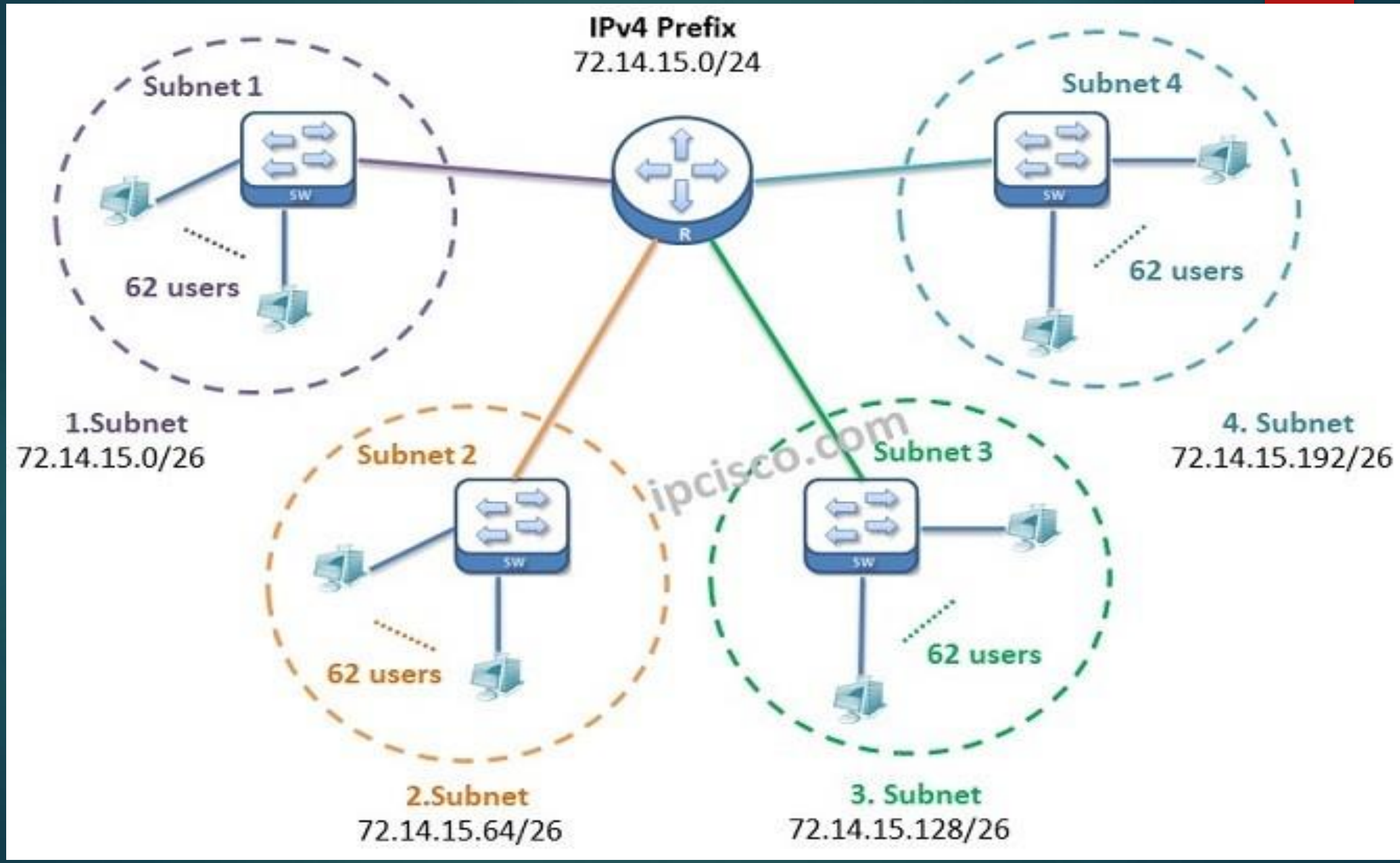
is an **IP address** that is used to target all systems on a specific subnet network instead of single hosts.

# Subnet

If a large computer network is divided into smaller groups, each group

# Host Address

is used to find the computer or the device in the subnet


IPv4 Prefix
72.14.15.0/24
Subnet 1
62 users
1.Subnet
72.14.15.0/26
Subnet 2
62 users
2.Subnet
72.14.15.64/26
Subnet 3
62 users
3. Subnet
72.14.15.128/26
Subnet 4
62 users
4. Subnet
72.14.15.192/26
SW
R
ipcisco.com

# Classes of IP Address

## 1. Class A

Used for large networks, implemented by large companies and some countries.

| START | END |
|---|---|
| **0.0.0.0** | 127.255.255.255 |

| SUBNET MASK |
|---|
| **255.0.0.0** |

**Example:**

**12.34.56.7** **100.34.56.7**

# 2. Class B

Used for medium-sized networks, implemented by universities

| START | END |
| --- | --- |
| **128.0.0.0** | 191.255.255.255 |

| SUBNET MASK |
| --- |
| **255.255.0.0** |

**Example:**

**132.78.24.57** **170.114.56.200**

# 2. Class B

Used for small networks,implemented by ISPs for customer subscriptions

| START | END |
| --- | --- |
| **192.0.0.0** | 223.255.255.255 |

| SUBNET MASK |
| --- |
| **255.255.255.0** |

**Example:**

**192.168.20.50** **200.40.56.10**

# Example:

Class A:
Network
Address
10.9.4.1

Host
255.0.0.0

Class B:
Network Address
128.9.4.1

Host
255.255.0.0

Class C:
Network Address
192.168.4.1

Host
255.255.255.0

Class A:
Network Address
120.20.5.10

Host
255.0.0.0

Class B:
Network
Address
190.9.4.1

Host
255.255.0.0

Class C:
Network Address
210.168.4.1

Host
255.255.255.0

# Try me?

Identify what class types of ip address.

| | | | |
|---|---|---|---|
| 1.) | 178.200.123.5 | class B | 255.255.0.0 |
| 2.) | 5.200.13.55 | class A | 255.0.0.0 |
| 2.) | 205.20.1.100 | class C | 255.255.255.255 |

| IP CLASS | START | END | SUBNET MASK |
|---|---|---|---|
| CLASS A | 0.0.0.0 | 127.255.255.255 | 255.0.0.0 |
| CLASS B | 128.0.0.0 | 191.255.255.255 | 255.255.0.0 |
| CLASS C | 192.0.0.0 | 223.255.255.255 | 255.255.255.0 |

# CALCULATE BROADCAST ADDRESS

## Example:

25.12.15.16

Network Address or NA

255.0.0.0

Broadcast Address or BA?

Subnet Mask:

25.255.255.255

# EVALUATE ME?

| Network Address | Broadcast Address |
| --- | --- |
| 1.) 100.10.12.2 | _____ |
| 2.) 190.23.122.20 | _____ |
| 3.) 180.253.172. 0 | _____ |
| 4.) 80.23.17. 10 | _____ |
| 5.) 193.30.7. 60 | _____ |

# Thank you