

STUDENT ACTIVITY 3.2: NETWORKING FUNDAMENTALS

MTA Course: 98-366 Networking Fundamentals

Topic: Understanding IPv4.

File name: NetFund_SA_3.2

Lesson Objective

3.2: Understand IPv4. *This objective may include but is not limited to:* addressing; subnetting; NAT, static IP, gateway; APIPA; network classes, classful/classless IP addressing; reserved address ranges for local use (including local loopback IP).

Directions to the student: Select the best answer to complete the following.

Content

1. What contributes to the problems associated with IP V4?
 - a. Most of Class C are too small to be useful and Class B addresses have already been assigned
 - b. Even though there is a field for TOS in the IPV4 header, routers do not pay attention to it.
 - c. IP packets can be easily snooped from the network.
 - d. No standard for authentication of the user to a server or encryption of data in packets
 - e. Maximum packet size is $2^{16}-1$ (65,535); packets may be too small considering newer, faster networks.
 - f. All of the above.
2. IPv4 uses what size addresses?
 - a. 16 bit
 - b. 32 bit
 - c. 48 bit
 - d. 64 bit

3. IPv4 addresses are usually written in
 - a. dot-decimal notation
 - b. with no notation
 - c. five octets of the address
 - d. base format
4. Supernetting allows
 - a. route aggregation
 - b. five octets of the address
 - c. 48 bit
 - d. base format
5. The number of local networks IANA reserved IP address space for private internets
 - a. 8 blocks
 - b. 6 blocks
 - c. 7 blocks
 - d. 3 blocks
6. Virtual private networks are needed to communicate between
 - a. two private networks
 - b. military networks
 - c. education networks
 - d. two public networks
7. A broadcast address is an address that allows
 - a. information to be hidden.
 - b. information to be sent to all machines on a given subnet.
 - c. information kept on servers only.