

Cisco CCNA (200-301)

Episode Title: Reviewing IPv4 Addressing

Learner Objective: Configure and verify IPv4 addressing

Description: The Learner will become learn the history and use of IP addresses. You will learn the component parts of an IP address. Also, you will hear why RFC 1918 private IPv4 addresses are used.

Q: Can you review the use of IP addresses in networking?

32 bit binary number is as a computer's address like a street address it identify a unique house and the street that it lives on. we don't read it in binary but in a dotted decimal format. e.g., 192.168.1.10

Q: How does it separate it into the 2 parts like a street address?

There's a binary process called ANDing. This allows us to take some of the 32 bits and treat them like the street and the rest would be like a house number.

Q: Can you give us a brief history about the classes of IP Addresses? Yes.

This was limiting number of valid addresses because of growth of internet

Q: How was this rapid growth addressed?

3 methods;

- Graphic of NAT--Network Address Translation
- VLSM - Variable Length Subnet Masking
- Private address ranges.
(We will look only at the Private ones now)
 - (another table side-by-side with classful ranges)

Endnotes, External, and etc.

- Objective: 1.6 and 1.7
- Exam 200-301 objectives