Timothy Jelinek

Part 1

1. Why would you want to use DHCP?

You would want to use DHCP to save time from manually entering IP addresses and to prevent IP conflicts where devices used the same IP and couldn’t connect to the network.

1. Is DHCP enabled on your computer? If so, how do you know?

DHCP is enabled on my computer. I found it is enabled by typing ipconfig/all in a command prompt.

1. Why are IP addresses leased?

IP addresses are leased to make sure the DHCP server doesn’t run out of IP addresses and that computers that are no longer being used don’t hog an IP address.

1. Why would you want to use reservations with network printers?

A reservation is ideal to be used on a printer so that it keeps the same IP.

Part 2

1. Why do computers self assign their own IP address?

They self assign their own IP address so they can still communicate with other computers on the same subnet.

1. If a computer self assigns an IP address can communicate with another computer beyond a router?

No, a computer with a self assigned IP address can only communicate with other computers in the same subnet.

1. Check your IP address. Is the IP address self assigned? How do you know?

My computer does not have a self assigned IP address, because it doesn’t show one when I type ipconfig in the command prompt.

1. When a DHCP server is not available, how do computers ensure they have a unique IP address?

The computer broadcast an ARP message over the network to make sure no other computer picks the same IP address as them.

Part 3

1. What is the purpose of DNS?

The purpose of DNS is to resolve domain names to IP addresses so that computers can read them as they can only read numbers.

1. What is the purpose of an authoritative name server?

The purpose of an authoritative name server is to know everything about a domain.

Sources:

DHCP Explained - Dynamic Host Configuration Protocol, PowerCert Animated Videos, May 2017

APIPA Explained - Automatic Private IP Addressing, PowerCert Animated Videos, June 2021

DNS Records Explained, PowerCert Animated Videos, March 2023