Unit 1 lab assignemnt

Technology, Information Technology

Networking DHCP configuration is an important process that everyone who purposes to set up a network should clearly understand. It involves a step by step process which should be perfectly done to prevent any problems to the network being configured. In this writing, I will go through the objectives of the steps and highlight the importance of understanding the purpose of each step (It Essentials: Pc Hardware and Software Companion Guide 34). Authorizing a DHCP server is among the first step in DHCP configuration. This enables the server to lease IP addresses to DHCP clients. Creating a scope sets a range of IP addresses that the DCHP leases to the clients (Bender 27). Creating an exclusion range of IP addresses, on the other hand, sets a range of IP addresses that one would not like to be offered to the DCHP clients. To enable a DHCP client to use an address permanently, one creates client reservations. Knowledge of the above concepts helps a networker prevent errors that may develop from improper configuration.

DHCP uses options to pass additional IP setting to DHCP clients on a network. These options include DNS server, Domain name or the wins server. Configure server options applies the options to all scopes while configure scope options applies the options to a single scope (IT Essentials: Pc Hardware and Software Companion Guide 53). The design of DHCP options involves definition of parameters and settings to establish the boundaries of a given DHCP configuration. The options can be applied in a single scope or applied to all scopes defined in the server. Understanding the above concepts helps a networker efficiently make changes and debug errors to either one scope or all the scopes defined in the server.

In addition to the DHCP configuration, there exist advanced settings for

DHCP. One can enable the pool configuration, specify additional service availability settings and set up HA synchronization. Configuring a DHCP relay agent involves configuring the relay agent program on a computer (It Essentials: Pc Hardware and Software Companion Guide 76). Messages can be sent through different subnets only if a networker understands the concept of setting up a relay agent and sets up one.

Setting up a relay agent on a computer on each subnet allows message traffic to be relayed to computers on different subnets (Bender 67). This knowledge helps a network developer a lot in minimizing the cost that would have been incurred in purchasing another DHCP server. Configuration Protocol for IPv6 can also be configured for DHCP. The use of IPV6 allows many subnets to be created. A networker setting up many subnets with few clients helps prevent traffic jam.

Works cited

Bender, Michael. Mcts Guide to Microsoft Windows Server 2008 Network Infrastructure Configuration. Boston, MA: Course Technology, Cengage Learning, 2010. Print.

It Essentials: Pc Hardware and Software Companion Guide. Indianapolis: Cisco Press, 2013. print