A4

Assignment 04

TITLE

Install and configure DHCP server and write a program to install the software on remote machine

Requirements :-

DHCP Server, Fedora OS.

THEORY :-

DHCP (Dynamic Host configuration Protocol) is a standardized network protocol used on Internet protocol networks for dynamically distributing network config parameters, such as IP addresses for interfaces and servic

DHCP server can be any server that is used to distribute IP addresses automatically to all system a system or network administrator need not assign the system. DHCP is apt for system or network administrator need not assign IP addresses manually to every single machine in the system. DHCP is apt for system or network admin who is managing thousands of systems.

DHCP is a network service that enables host computer to be automatically assigned settings from a server as opposed to manually configuring each network computers configured to be DHCP clients have no control over the setting they receive from the D server and the configuration is transparent to computer's user.

Edit dhcpd.conf file and set domain and domain name

option domain-name "unixmen.local"
option domain-name-servers servers.unixmen.local

Define subnet, range of ip addresses, domain & domain name servers

Subnet 192.168.1.20
Netmask 255.255.255.0
Range 192.168.1.20 192.168.1.30;

open routes 192.168.1.1;
option broadcast-address 192.168.1.255;
default lease-time 600;
max-lease time 7200;

Restart dhcp service
sudo system CTL restart isc-dhcp-server
Go to client configuration net. settings and change IP settings to Automatic (DHCP.

Manual allocation (MAC Address) -
This method entails using DHCP to identify the unique hardware address of each network card connected to the network and then continually supplying a constant configuration each time the DHCP client makes a request to the DHCP server using that network device.

Dynamic allocation (address pool) -
In this method, the DHCP server will assign an IP address from a pool of addresses (sometimes also called a range or scope) for a period of time or lease, that is configured on the server until the client informs the server that it doesn't need the address anymore. This way, an address can be leased or used for a period of time. After this period, the client has to renegociate the lease.

Automatic allocation -
Using this method, the DHCP automatically assigns an IP address permanently to a device, selecting from a pool of available addresses. Usually DHCP is used to assign a temporary address to a client but a DHCP server can allow an infinite lease time.