CLI DHCP Commands

Configuring a Router to be a DHCP server

Task	IOS Command
To exclude an address or address range	**R1(config)# ip excluded-address** *low-address [high address]*
Give the address pool a name	**R1(config)# ip dchp pool** *pool-name*
Define the address pool	**R1(dchp-config)# network** *network-ip-number [mask or prefix length]*
Define the default router or gateway	**R1(dchp-config)# default-router** *address*
Define a DNS server	**R1(dchp-config)# dns-server** *address*
Define the domain name	**R1(dchp-config)# domain-name** *domain*
Define the duration of the DCHP lease	**R1(dchp-config)# lease** *{days[hours[minutes]] or* **infinite***}*
Define the NetBIOS WINS server	**R1(dchp-config)# netbios-name-server** *address*

Example

R1(config)# ip dchp excluded-address 192.168.10.1 192.168.10.9

R1(config)# ip dchp excluded-address 192.168.10.254

R1(config)# ip dchp pool LAN-POOL-1

R1(dchp-config)# network 192.168.10.0 255.255.255.0

R1(dchp-config)# default-router 192.168.10.1

R1(dchp-config)# dns-server 192.168.11.5

R1(dchp-config)# domain-name example.com

DHCP Verification

Task	IOS Command
Display the DHCPv4 commands configured on the router	**R1# show running-config | section dchp**
Display a list of all the IPv4 address to MAC address bindings provided by the DCHPv4 service	**R1# show ip dchp binding**
Display information regarding the number of DCHPv4 messages that have been sent and received	**R1# show ip dchp server statistics**

Router as a DHCP relay

This allows a router to forward DHCPv4 messages to a dedicated DHCPv4 server that is on a different network to a requesting PC. This command is applied to the interface that the PC is on. The router will hen forward any DCHP messages to the IP Address of the server. In the example below the server address is 192.168.11.6

R1(config)# interface g0/0/0

R1(config-if)# ip helper-address 192.168.11.6

R1(config-if)#end