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NetLab+ Lab 9: Network Troubleshooting

1. *What does the nslookup command do?*

Answer: The nslookup command outputs the name and IP address of the DNS server that resolved the name and shows the fully qualified domain name and IP address of the host specified.

1. *What utility can be used to find out the IP address, subnet mask and default gateway configured on a computer?*

Answer: ipconfig / all will display the IP address, subnet mask, and default gateway configuration on a computer.

1. *What is the function of the DNS protocol?*

Answer: The DNS protocol is intended resolve an IP address to fully qualified domain name or vise versa.

1. *If a client does not have the correct DNS server address specified in its TCP/IP properties, what will occur?*

Answer: The DNS services will be unavailable and therefore you would be unable to us web addresses to find servers because you will not resolve an IP address.

1. *What IPv4 address was assigned to the Windows 2k8 R2 Internal 2 machine by the DHCP server?*

Answer: The IPv4 address assigned to Internal 2 Machine by the DHCP server is 192.168.12.15.

1. *Could this machine have leased a different IP address?*

Answer: Yes, it could lease any of the available IP addresses we added to the DHCP server aside from the ones added to the exclusion.

1. *According the DHCP server configurations, what range of IP addresses could this machine been assigned by DHCP?*

Answer: DHCP could have assigned IP addresses: 192.168.12.15 – 192.168.12.30.

1. *After configuring the host as a DHCP client, was it dynamically allocated DHCP and DNS server addresses correctly?*

Answer: Yes, after configuring the host as a DHCP client it dynamically allocated DHCP by receiving IP address, subnet mask, default gateway, etc. as well as receiving a DNS server address. We tested the DNS server by pinging the default gateway and the DHCP server.

1. *What is the function of the ipconfig/release and the ipconfig/renew commands?*

Answer: The ipconfig/release releases the IP address back to DHCP in the available pool of IP addresses. The ip/renew renegotiates the IP address for the machine with DHCP.

1. *What type of devices would be better served to have static IP configuration?*

Answer: Servers in general tend to have static IP configurations so that they can easily be found by other machines. One example is the DHCP server.