

David Thomsen
SYS-255

Deliverable 1. Take a snapshot of the results of `ipconfig /all`. Note the DHCP server of 10.0.5.3 should be there, your IP address should be the first IP address in the scope you set earlier. Your domain name, netmask and gateway should also be set correctly.

```
Command Prompt

Windows IP Configuration

Host Name . . . . . : wks01-david
Primary Dns Suffix . . . . . : david.local
Node Type . . . . . : Hybrid
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No
DNS Suffix Search List. . . . . : david.local

Ethernet adapter Ethernet0:

Connection-specific DNS Suffix . : david.local
Description . . . . . : Intel(R) 82574L Gigabit Network Connection
Physical Address. . . . . : 00-50-56-B3-45-0A
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . : Yes
Link-local IPv6 Address . . . . . : fe80::f132:b600:6103:6c0c%3(Preferred)
IPv4 Address. . . . . : 10.0.5.100(Preferred)
Subnet Mask . . . . . : 255.255.255.0
Lease Obtained. . . . . : Sunday, September 26, 2021 10:55:17 AM
Lease Expires . . . . . : Sunday, September 26, 2021 10:55:07 PM
Default Gateway . . . . . : 10.0.5.2
DHCP Server . . . . . : 10.0.5.3
DHCPv6 IAID . . . . . : 100683862
DHCPv6 Client DUID. . . . . : 00-01-00-01-28-BF-0D-60-00-50-56-B3-45-0A
DNS Servers . . . . . : 10.0.5.5
NetBIOS over Tcpip. . . . . : Enabled
```

Deliverable 2. Log back into `dhcp01` and find the DHCP log associated with `wks01`'s request for DHCP information. Take a snapshot similar to the one below. The IP address, the workstation name, the layer 2 address should all match between deliverables 1 and 2.

```
[david@dhcp01-david ~]$ sudo cat /var/log/messages | grep wks01-david
Sep 26 13:55:22 dhcp01-david dhcpd: DHCPOFFER on 10.0.5.100 to 00:50:56:b3:45:0a (wks01-david) via e
ns192
Sep 26 13:55:22 dhcp01-david dhcpd: DHCPREQUEST for 10.0.5.100 (10.0.5.3) from 00:50:56:b3:45:0a (wk
s01-david) via ens192
Sep 26 13:55:22 dhcp01-david dhcpd: DHCPACK on 10.0.5.100 to 00:50:56:b3:45:0a (wks01-david) via ens
192
[david@dhcp01-david ~]$
```

Deliverable 3. Provide a screenshot similar to the one below that shows the 4 Key DHCP Messages.

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	10.0.5.100	10.0.5.3	DHCP	342	DHCP Release - Transaction ID 0xcb10bf24
195	19.410128	0.0.0.0	255.255.255.255	DHCP	342	DHCP Discover - Transaction ID 0x1fe19a02
202	20.412768	10.0.5.3	10.0.5.100	DHCP	342	DHCP Offer - Transaction ID 0x1fe19a02
203	20.413684	0.0.0.0	255.255.255.255	DHCP	374	DHCP Request - Transaction ID 0x1fe19a02
204	20.428434	10.0.5.3	10.0.5.100	DHCP	342	DHCP ACK - Transaction ID 0x1fe19a02

Deliverable 4. Figure out how to change the default lease time given to dhcp clients to 1 hour with a max lease time of four hours. Provide a screenshot displaying new configuration.

```
#
# DHCP Server Configuration file.
# see /usr/share/doc/dhcp*/dhcpd.conf.example
# see dhcpd.conf(5) man page
#
default-lease-time 3600;
max-lease-time 14400;

subnet 10.0.5.0 netmask 255.255.255.0 {
    option routers 10.0.5.2;
    option subnet-mask 255.255.255.0;
    option domain-name "david.local";
    option domain-name-servers 10.0.5.5;
    range 10.0.5.100 10.0.5.150;
}
```

https://github.com/dthomsen116/SYS_255/wiki/Thomsen-SYS255-Lab04