

```
joe@bionic-template:~$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: ens4: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 52:54:00:08:00:35 brd ff:ff:ff:ff:ff:ff
    inet 144.38.199.40/28 brd 144.38.199.47 scope global dynamic ens4
        valid_lft 452sec preferred_lft 452sec
    inet6 2001:1948:e10:2002:5054:ff:fe08:35/64 scope global dynamic mngtmpaddr noprefixroute
        valid_lft 2591859sec preferred_lft 604659sec
    inet6 fe80::5054:ff:fe08:35/64 scope link
        valid_lft forever preferred_lft forever
joe@bionic-template:~$ echo "here is my client"
here is my client
joe@bionic-template:~$ echo "it received the first available lease from my range"
it received the first available lease from my range
joe@bionic-template:~$
```



```
joe@bionic-template:~$ echo "Make sure dhcp is actually setup for the client"
Make sure dhcp is actually setup for the client
joe@bionic-template:~$ cat /etc/netplan/01-netcfg.yaml
# This file describes the network interfaces available on your system
# For more information, see netplan(5).
network:
  version: 2
  renderer: networkd
  ethernets:
    ens4:
      dhcp4: true
      # addresses: [ 144.38.199.105/28 ]
      # gateway4: 144.38.199.97
      # nameservers:
      #   search: [ cs.dixie.edu ]
      # addresses:
      #   - "144.38.192.2"
      #   - "144.38.192.3"
joe@bionic-template:~$ echo "Dhcp is set to true"
Dhcp is set to true
joe@bionic-template:~$
```

```
joe@dhcp:/etc/dhcp$ cd
```

```
joe@dhcp:~$ sudo tail -f /var/log/syslog
```

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Jan 10 10:17:57 bionic-template sh[9926]: Sending on      LPF/ens4/52:54:00:08:00:32/144.38  
.199.32/28
```

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Jan 10 10:17:57 bionic-template dhcpd[9926]: Sending on      Socket/fallback/fallback-net
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Jan 10 10:17:57 bionic-template sh[9926]: Sending on      Socket/fallback/fallback-net
```

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Jan 10 10:17:57 bionic-template dhcpd[9926]: Server starting service.
```

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Jan 10 10:18:42 bionic-template dhcpd[9926]: DHCPDISCOVER from 52:54:00:08:00:35 via ens  
4
```

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Jan 10 10:18:43 bionic-template dhcpd[9926]: DHCPOFFER on 144.38.199.40 to 52:54:00:08:0  
0:35 (bionic-template) via ens4
```

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Jan 10 10:18:43 bionic-template dhcpd[9926]: DHCPREQUEST for 144.38.199.40 (144.38.199.3  
4) from 52:54:00:08:00:35 (bionic-template) via ens4
```

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Jan 10 10:18:43 bionic-template dhcpd[9926]: DHCPACK on 144.38.199.40 to 52:54:00:08:00:  
35 (bionic-template) via ens4
```

```
Jan 10 10:23:43 bionic-template dhcpd[9926]: DHCPREQUEST for 144.38.199.40 from 52:54:00  
:08:00:35 (bionic-template) via ens4
```

```
Jan 10 10:23:43 bionic-template dhcpd[9926]: DHCPACK on 144.38.199.40 to 52:54:00:08:00:  
35 (bionic-template) via ens4
```

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□
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joe@dhcp:~$ cat /var/lib/dhcp/dhcpd.leases
# The format of this file is documented in the dhcpd.leases(5) manual page.
# This lease file was written by isc-dhcp-4.3.5

# authoring-byte-order entry is generated, DO NOT DELETE
authoring-byte-order little-endian;

server-uid "\000\001\000\001%\253nERT\000\010\0002";

lease 144.38.199.40 {
    starts 5 2020/01/10 17:18:43;
    ends 5 2020/01/10 17:28:43;
    cltt 5 2020/01/10 17:18:43;
    binding state active;
    next binding state free;
    rewind binding state free;
    hardware ethernet 52:54:00:08:00:35;
    uid "\377@Vc\242\000\002\000\000\253\021+\277\007{A,\0134";
    client-hostname "bionic-template";
}
lease 144.38.199.40 {
    starts 5 2020/01/10 17:23:43;
    ends 5 2020/01/10 17:33:43;
    cltt 5 2020/01/10 17:23:43;
    binding state active;
    next binding state free;
    rewind binding state free;
    hardware ethernet 52:54:00:08:00:35;
    uid "\377@Vc\242\000\002\000\000\253\021+\277\007{A,\0134";
    client-hostname "bionic-template";
}
joe@dhcp:~$
```