

How to Configure DHCP Server

on Machine number -1 ip hostname and yum must be configured.

Step-1

```
[root@station1 ~]#  
[root@station1 ~]# hostname  
station1.example.com  
[root@station1 ~]#  
[root@station1 ~]# ifconfig  
ens33: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500  
        inet 192.168.0.1 netmask 255.255.255.0 broadcast 192.168.0.255  
              inet6 fe80::17a2:e81b:a734:383f prefixlen 64 scopeid 0x20<link>  
                    ether 00:0c:29:fb:cc:2b txqueuelen 1000 (Ethernet)  
                      RX packets 989 bytes 137828 (134.5 KiB)  
                      RX errors 0 dropped 0 overruns 0 frame 0  
                      TX packets 90 bytes 10620 (10.3 KiB)  
                      TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0  
  
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536  
      inet 127.0.0.1 netmask 255.0.0.0  
            inet6 ::1 prefixlen 128 scopeid 0x10<host>  
                  loop txqueuelen 1000 (Local Loopback)  
                    RX packets 498 bytes 41966 (40.9 KiB)  
                    RX errors 0 dropped 0 overruns 0 frame 0  
                    TX packets 498 bytes 41966 (40.9 KiB)  
                    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0  
  
virbr0: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500  
      inet 192.168.122.1 netmask 255.255.255.0 broadcast 192.168.122.255
```

```
ether 52:54:00:c6:a6:00  txqueuelen 1000  (Ethernet)
RX packets 0  bytes 0 (0.0 B)
RX errors 0  dropped 0  overruns 0  frame 0
TX packets 0  bytes 0 (0.0 B)
TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0
```

```
[root@station1 ~]#
[root@station1 ~]# yum repolist
Updating Subscription Management repositories.
Unable to read consumer identity
This system is not registered to Red Hat Subscription Management. You can use
subscription-manager to register.
Repository 'dvd1' is missing name in configuration, using id.
Repository 'dvd2' is missing name in configuration, using id.
Last metadata expiration check: 0:01:31 ago on Mon 07 Oct 2019 01:59:16 AM IST.
repo id          repo name
status
dvd1              1,658
dvd2              4,672
[root@station1 ~]#
```

Step-2 Install Dhcp packages and enable the service.

```
[root@station1 ~]# yum install  dhcp* -y

root@station1 ~]# cat /etc/dhcp/dhcpd.conf
#
# DHCP Server Configuration file.
#   see /usr/share/doc/dhcp-server/dhcpd.conf.example
#   see dhcpcd.conf(5) man page
#
```

```
[root@station1 ~]# sed -n '47,55p' /usr/share/doc/dhcp-server/dhcpd.conf.example
subnet 10.5.5.0 netmask 255.255.255.224 {
    range 10.5.5.26 10.5.5.30;
    option domain-name-servers ns1.internal.example.org;
    option domain-name "internal.example.org";
    option routers 10.5.5.1;
    option broadcast-address 10.5.5.31;
    default-lease-time 600;
    max-lease-time 7200;
}
```

Note : copy these all lines using mouse and paste in original file.

```
[root@station1 ~]#
[root@station1 ~]# vim /etc/dhcp/dhcpd.conf
```

paste the lines after line number 5

```
1 #
2 # DHCP Server Configuration file.
3 #   see /usr/share/doc/dhcp-server/dhcpd.conf.example
4 #   see dhcpd.conf(5) man page
5 #
6 subnet 192.168.0.0 netmask 255.255.255.0 {
7     range 192.168.0.2 192.168.0.254;
8     option domain-name-servers 192.168.0.1;
9     option domain-name "example.com";
10    option ntp-servers 192.168.0.1;
11    option routers 192.168.0.1;
12    option broadcast-address 192.168.0.255;
13    default-lease-time 600;
14    max-lease-time 7200;
15 }
```

change file as per need and save it :wq

```
[root@station1 ~]# systemctl restart dhcpcd
[root@station1 ~]# systemctl enable dhcpcd
Created symlink /etc/systemd/system/multi-user.target.wants/dhcpcd.service →
/usr/lib/systemd/system/dhcpcd.service.
```

```
[root@station1 ~]# firewall-cmd --permanent --add-service=dhcp
success
[root@station1 ~]# firewall-cmd --reload
success
[root@station1 ~]#
[root@station1 ~]# netstat -tunlp | grep dhcp
udp      0      0 0.0.0.0:67          0.0.0.0:*
38927/dhcpcd
[root@station1 ~]#
```

Server end is ready.....

Step-3

Go on Second machinedelete the existing profile and create new dhcp based profile.

Step-4

```
[root@station1 ~]# cat /var/log/messages
[root@station1 ~]# cat /var/log/messages | grep 192.168.0.6
[root@station1 ~]# cat /var/lib/dhcpcd/dhcpcd.leases
```

Step-5 Configure DHCP Reservation

```
[root@station1 ~]# sed -n '75,78p' /usr/share/doc/dhcp-server/dhcpd.conf.example >> /etc/dhcp/dhcpd.conf
```

```
[root@station1 ~]# vim /etc/dhcp/dhcpd.conf
```

```
subnet 192.168.0.0 netmask 255.255.255.0 {  
    range 192.168.0.2 192.168.0.254;  
    option domain-name-servers 192.168.0.1;  
    option domain-name "example.com";  
    option ntp-servers 192.168.0.1;  
    option routers 192.168.0.1;  
    option broadcast-address 192.168.0.255;  
    default-lease-time 600;  
    max-lease-time 7200;  
}  
  
host machine2 {  
    hardware ethernet 00:0c:29:47:ed:db;          (this is the mac address of  
    machine-2)  
    fixed-address 192.168.0.200;                  (reserv ip for machine-2)  
}
```

save and quit from this file

```
[root@station1 ~]# systemctl restart dhcpd
```

Step-6 Go on Machine-2 and check the current ip

***** END *****