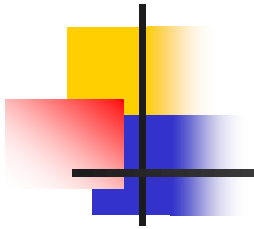
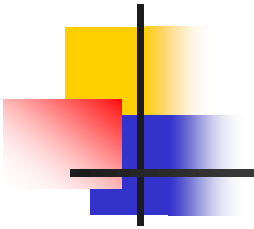
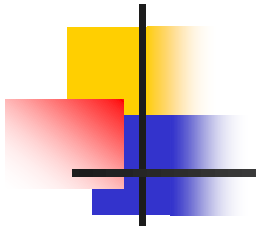


DHCP Configuration



Features

- DHCP, or **Dynamic Host Configuration Protocol**
- Allows an administrator to configure network settings for all clients on a central server.
- The DHCP clients request an IP address and other network settings from the **DHCP server** on the network. The **DHCP server** in turn leases the client an IP address within a given range or leases the client an IP address based on the MAC address of the client's network interface card (NIC).
- The information includes its IP address, along with the network's name server, gateway, and proxy addresses,including the netmask
- Nothing has to be configured manually on the local system, except to specify the **DHCP server** it should get its network configuration from.
- If an IP address is assigned according to the MAC address of the client's NIC, the same IP address can be leased to the client every time the client requests one. DHCP makes network administration easier and less prone to error.

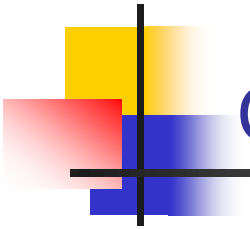


- DHCP server provides IP address.
- Subnet Mask .
- Default Gateway.
- Preferred DNS Server.
- Domain Name.

Lab Setup

- #rpm –qa dhcp (query for dhcp)
- #yum –ql dhcp (query for dhcp)
- #yum install dhcp (install dhcp package)
- **Configuration file**
- # /etc/dhcpd.conf
- #/etc/dhcp/dhcpd.conf

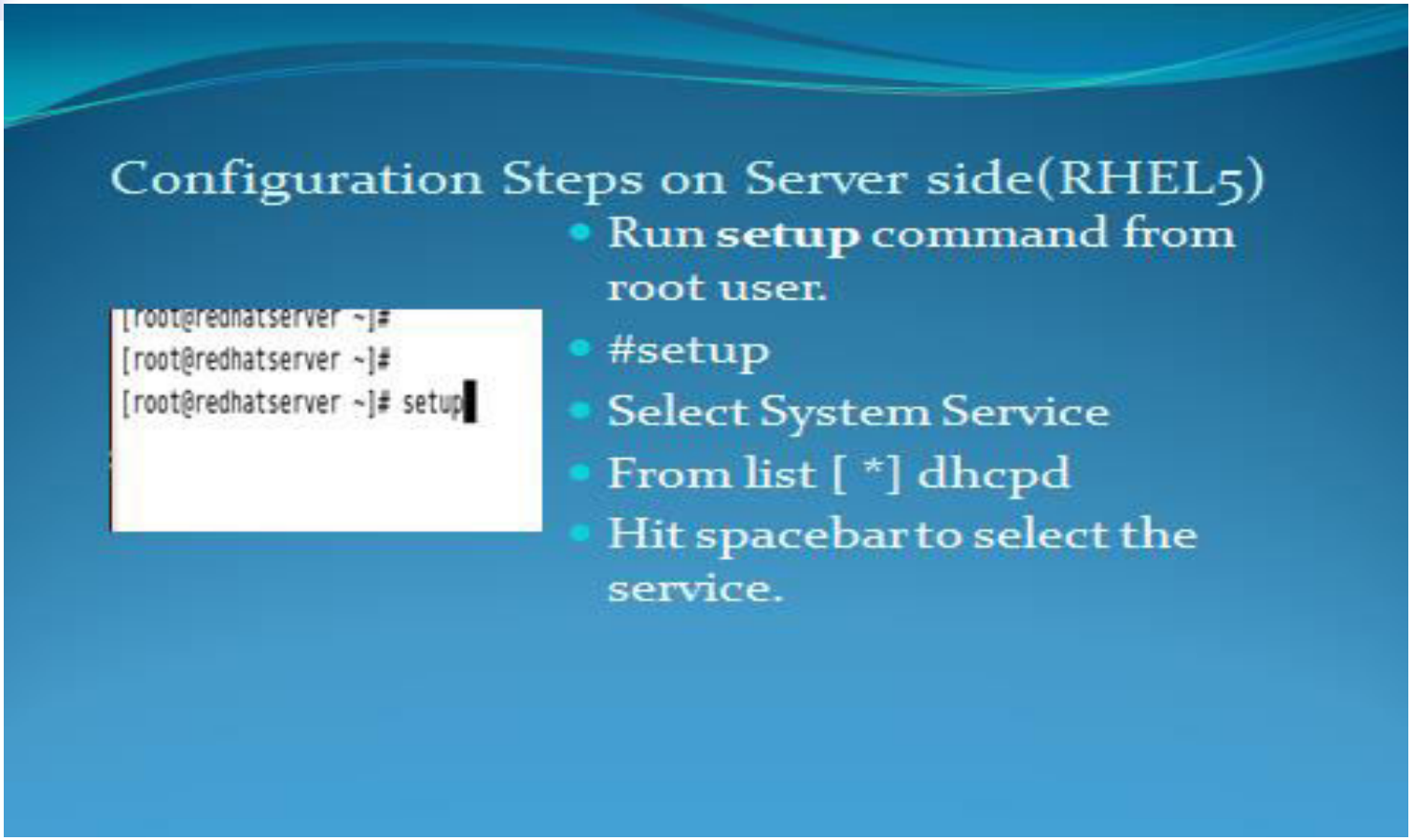
- Verify dhcp service
- #service dhcpd status
- #service dhcpd start/stop/restart
- #chkconfig –-list dhcpd
- #chkconfig dhcpd on

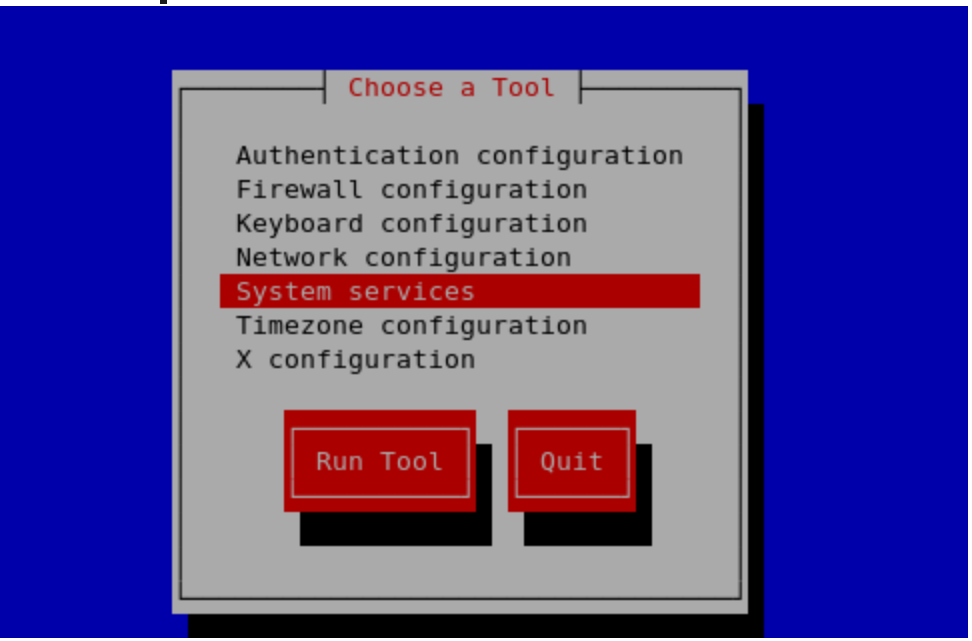


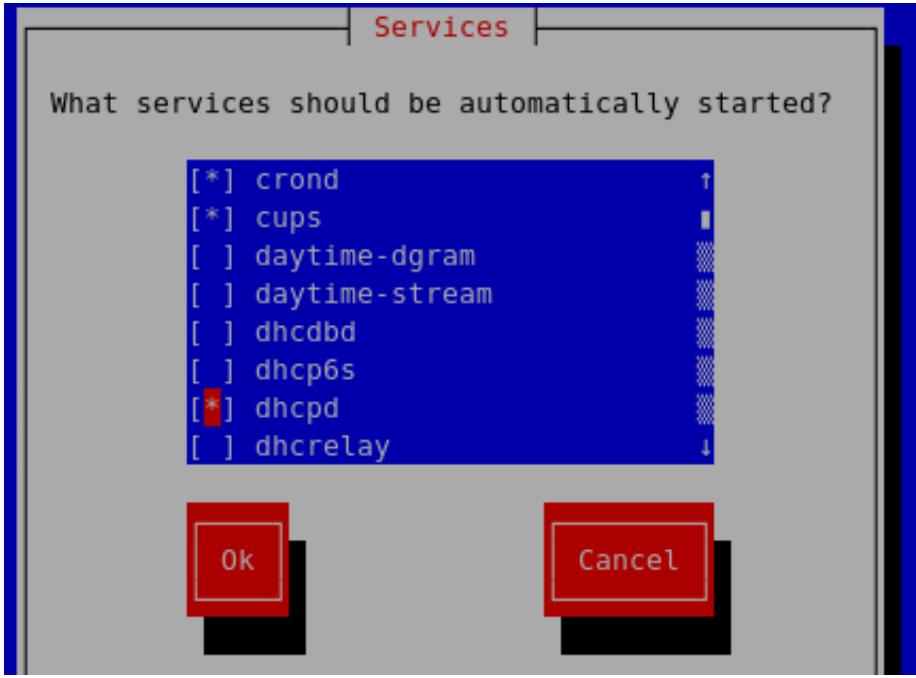
Configuration Steps on Server side(RHEL5)

- Run **setup** command from root user.
- #setup
- Select System Service
- From list [*] dhcpd
- Hit spacebar to select the service.

Configuration Steps on Server side(RHEL5




Choose a Tool
Authentication configuration
Firewall configuration
Keyboard configuration
Network configuration
System services
Timezone configuration
X configuration
Run Tool
Quit


Services
What services should be automatically started?
[*] crond
[*] cups
[ ] daytime-dgram
[ ] daytime-stream
[ ] dhcdbd
[ ] dhcp6s
[*] dhcpd
[ ] dhcrelay
Ok
Cancel

To Assign IP Address to DHCP Server

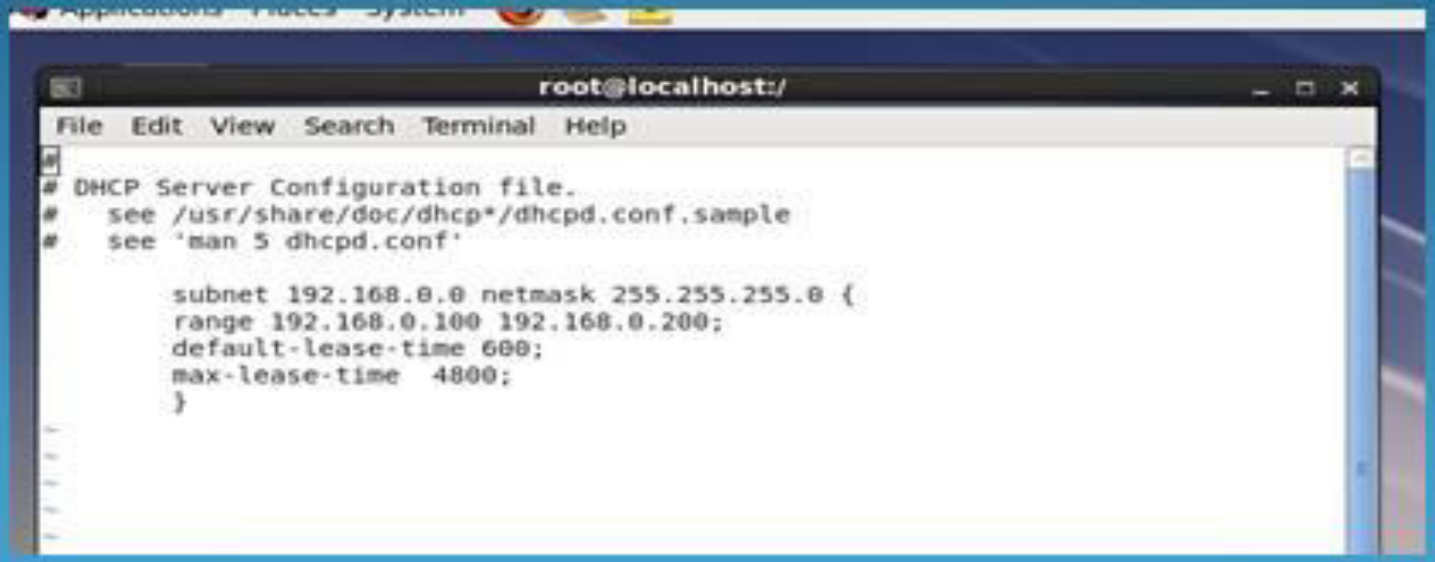
- **DHCP server** have a static a ip address. First configure the ip address **192.168.0.12** with netmask of **255.255.255.0** on server.
- Run **setup** command form root user
- Go to Network Configuration
- now a new window will show you all available LAN card select your LAN card (if you don't see any LAN card here mean you don't have install driver)
- assign IP in this box and click ok
- **restart** the **network service** so new ip address can take place on LAN card

Configuring DHCP Server

- Config file: /etc/dhcpd.conf
- Now copy sample file from
- **#cp /usr/share/doc/dhcp3.0.5/dhcpd.conf.sample /etc/dhcpd.conf**

```
ddns-update-style interim;
ignore client-updates;

subnet 192.168.0.0 netmask 255.255.255.0 {

# --- default gateway
        option routers                  192.168.0.1;
        option subnet-mask              255.255.255.0;

        option nis-domain               "domain.org";
        option domain-name              "domain.org";
        option domain-name-servers      192.168.1.1;

        option time-offset              -18000; # Eastern
#       option ntp-servers              192.168.1.1;
#       option netbios-name-servers     192.168.1.1;
# --- Selects point-to-point node (default is hybrid). Do
# -- you understand Netbios very well
#       option netbios-node-type 2;

        range dynamic-bootp 192.168.0.128 192.168.0.254;
        default-lease-time 21600;
        max-lease-time 43200;
```

- The configuration files created after installing the package DHCP are :
- 1./etc/dhcp .
- 2./etc/dhcp/dhcpd.conf .
- Now edit the /etc/dhcp/dhcpd.conf file as follows.

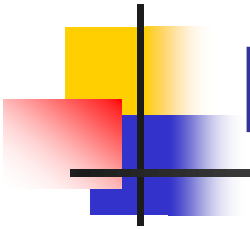


How to assign fixed Ipaddress to any host.

- change **hardware Ethernet** to client's **mac address** and **fixed -address** to **ip address** which you want to provide that host

```
# we want the nameserver to appear at a fixed address
host ns {
        next-server marvin.redhat.com;
        hardware ethernet 12:34:56:78:AB:CD;
        fixed-address 207.175.42.254;
}
```

Now switch to Client Side



- #setup
- select **network configuration** from menu list
- Select **lan card** and enter on ok
- Select **USE DHCP** and enter on ok
- Now click on **quit** and **quit** to come back on root prompt
- Now restart the **network service** to obtain ip from **dhcp server**

Checking the leases info

- Cat /var/lib/dhcp/dhcpd.leases