**3 Ways to Give IP**

**1. Nmtui (Network Manager Terminal User Interface)**

nmtui is a text-based user interface for managing network connections.

* **LAN Card Naming:**
  + RHEL 5, 6, 7: eth0, eth1
  + RHEL 8, 9, 10: ens160, ens224
* **Commands to View IP Address:**
  + Windows: ipconfig
  + Linux: ifconfig or ip a
* **Commands to View Gateway IP:**
  + route -n or ip route show or netstat -rn
* **Command to View DNS IP:**
  + cat /etc/resolv.conf

**2. Nmcli (Network Manager Command Line Interface)**

nmcli is a command-line tool for managing NetworkManager and network connections.

* **Commands:**
  + See the NIC name: nmcli connection
  + Modify connection settings:

sh

nmcli connection modify ens160 ipv4.method manual

nmcli connection modify ens160 ipv4.addresses 200.0.0.10/24

nmcli connection modify ens160 ipv4.gateway 50.0.0.1

nmcli connection modify ens160 ipv4.dns 78.52.12.3

* + Bring the connection down and up:

sh

nmcli connection down ens160

nmcli connection up ens160

**3. File Method**

Network configuration files are located in /etc/NetworkManager/system-connections/.

* **Commands:**
  + Change directory: cd /etc/NetworkManager/system-connections/
  + List files: ls

**Additional Networking Commands**

* **Ping:**
  + Packet Internet Groper (PING) is used to check network connectivity.
* **NFS (Network File Sharing):**
  + NFS is used to share data between Linux systems. Port number: 2049.
  + Example setup for VMs:
    - VM1: 192.168.100.147
    - VM2: 192.168.100.200
* **Software Installation and Configuration:**
  + Install NFS utilities:

sh

yum install nfs-utils -y

* + Create a directory and set permissions:

sh

mkdir /software

chmod 777 /software

* + Configure NFS exports:

sh

vim /etc/exports

/software \*(rw)

/abc \*(rw)

:wq

* + - \* means everyone. 10.0.0.0/8 for a specific network. 10.0.0.100 for a specific IP.
  + Restart NFS server:

sh

systemctl restart nfs-server

* + Disable SELinux temporarily:

sh

setenforce 0

* + Stop firewall:

sh

systemctl stop firewalld

* + See shared data:

sh

showmount -e

* + On VM2, see shared data on VM1:

sh

showmount -e 192.168.100.142

* **Mounting:**
  + Temporary mount:

sh

mount 192.168.100.142:/software /mnt

* + Permanent mount by adding to /etc/fstab:

sh

vim /etc/fstab

192.168.100.142:/software /mnt nfs