

Intro to Linux

1.5.1 - Network Interface Management



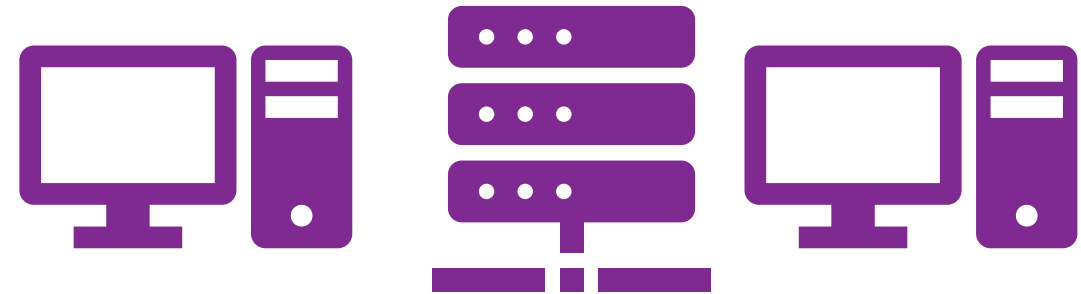
iproute2

- Used to manage IP addresses, routes, interfaces, and more
- Two commonly used tools are `ss` and `ip`
- The `ss` command displays socket statistics and includes information on sockets, ports, and protocols in use



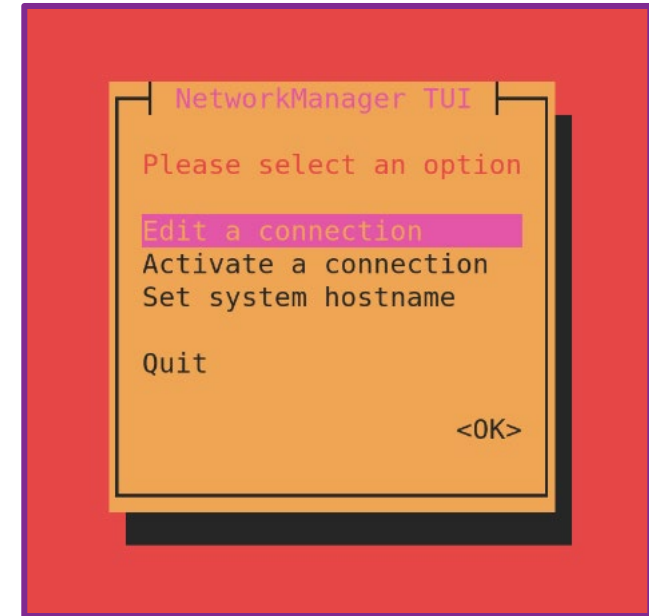
Iproute2 cont'd

- The ip command displays and allows managing of the current network configurations within a system
- Adding a parameter after the command allows for managing addresses, links, routing tables, and rules currently in place



Network Manager

- Network Manager provides a user-friendly interface for managing network connections
- The graphical interface can be initiated with the command `nmtui`
- The command `nmcli` will open the command line interface but still offers a user-friendly view



```
ubuntu@ip-10-15-88-93:~$ nmcli
ens5: unmanaged
      "Amazon.com Elastic"
      ethernet (ena), 0A:E9:9C:4A:D6:91, hw, mtu 9001

lo: unmanaged
    "lo"
    loopback (unknown), 00:00:00:00:00:00, sw, mtu 65536

Use "nmcli device show" to get complete information about known devices
"nmcli connection show" to get an overview on active connections
Consult nmcli(1) and nmcli-examples(7) manual pages for complete usage
```



Net-tools

- Net-tools is a suite of utilities seen on older Linux systems and are slowly being phased out by iproute2 and Network Manager

Command	Purpose
<code>ifconfig</code>	Displays or sets IP Address and netmask values
<code>route</code>	Displays the default router address
<code>ifcfg</code>	Allows configuration of these settings
<code>hostname</code>	View or set the hostname of a Linux system
<code>arp</code>	View and manipulate the ARP cache, which maps devices within a network



Configuration Files

- The utilities listed can save the network configurations and are often stored in the `/etc/sysconfig/network-scripts` or `/etc/network` directories within the Linux system

