Kali Network Configuration Crib Sheet (2)

Once we have configured our network interface with an IP address and brought the network interface up, then we need to starting thinking about routing. We can define/configure the network card at the command line using the ip command as follows:

```
──(root⊛kali)-[/home/kali]
└─# ip address add 192.168.2.201/24 dev eth0
```

We can examine the routeing status of out computer system via using the following command. The **-r** option tells **netstat** to display routeing information and the **-n** option tells **netstat** top display information in numerical form.

```
┌──(root⊛kali)-[/home/kali]
└─# netstat -rn
Kernel IP routing table
Destination     Gateway         Genmask         Flags   MSS Window  irtt Iface
192.168.2.0     0.0.0.0         255.255.255.0   U         0 0          0 eth0
┌──(root⊛kali)-[/home/kali]
└─#
```

The above tells us that the computer system is connected to a Class C network and it knows how to send and receive IP packets form the local area network. If we want to connect it to the Internet, then we need to define routing information. We can create and delete routing table entries via the route add/delete commands.

```
┌──(root⊛kali)-[/home/kali]
└─# route add -net 172.16.2.0/24 gw 192.168.2.254 dev eth0
```

In the above we use the **route add** command to add a route to the network **172.16.2.0/24**. In effect what we say that is all traffic to the network **172.16.2.0/24** will be routed via the IP address **192.168.2.254**. To connect a system to the Internet we need to define a default that tells the system how to route all internet traffic to a default router. This is achieved via the following command:

```
┌──(root⊛kali)-[/home/kali]
└─# route add default gw 192.168.2.254
```

We can also delete a route using the route del command as follows:

```
┌──(root⊛kali)-[/home/kali]
└─# route del -net 172.16.2.0/24
```

In the above we are deleting the route to the network **172.16.2.0/24**.

```
# ip address
```
- This will display all network interfaces on the system and how they are currently configured.
```
ifdown eth0
```
- Takes the network interface **eth0** down so that it is no longer connected to a network.
```
ifup eth0
```
- Brings the network interface **eth0** up so that it is connected to a network.
```
# ip address add 192.168.2.201/24 dev eth0
```
- Defines the network device **eth0** with the IP address **192.168.2.201** and the netmask of **255.255.255.0**.
```
# netstat -rn
```
- Displays the computer systems routeing table information.
```
# route add -net 172.16.2.0/24 gw 192.168.2.254 dev eth0
```
- Adds a route for the network **172.16.2.0/24** to the routeing table for the computer system.
```
# route del -net 172.16.2.0/24
```
- Deletes the route for the network **172.16.2.0/24** from the routeing table on the computer system.