Kali Network Configuration Crib Sheet (1)

Kali Linux network interfaces can be configured at the command line or via editing a file. We can examine the status of the interfaces via the following:

```
┌──(root㉿kali)-[/home/kali]
└─# ip address
. . . . . . . .
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group
default qlen 1000
    link/ether 00:0c:29:5f:b8:dd brd ff:ff:ff:ff:ff:ff
    inet 192.168.2.201/24 brd 192.168.2.255 scope global eth0
        valid_lft forever preferred_lft forever
. . . . . . . .
┌──(root㉿kali)-[/home/kali]
└─#
```

```
auto eth0
iface eth0 inet dhcp
```

This tells us that the device **eth0** has the IP address **192.168.2.201/24**. We can define network configuration via editing the file **/etc/network/interfaces**. In this file you can define the interface **eth0** to be via **dhcp**, as follows.

We can also define the interface to have a static IP address as follows. In the following we are defining the interface **eth0** to be a static IP address **192.168.2.201** on a class C network. The **auto eth0** command instructs the kernel to bring the interface up when the system boots up. The keywords in the file allow us to define aspects of the IP address, such as its network and broadcast address.

```
auto eth0
iface eth0 inet static
        address 192.168.2.201
        network 192.168.2.0
        netmask 255.255.255.0
        broadcast 192.168.2.255
```

```
┌──(root㉿kali)-[/home/kali]
└─# ifdown eth0
┌──(root㉿kali)-[/home/kali]
└─# ifup eth0
```

We can bring interfaces up using the **ifup** command and take interfaces down using the **ifdown** command.

Once we have defined the network interface's IP address, we next need to define the DNS server that will be used to resolve all DNS queries. This is contained in the file **/etc/resolv.conf** as follows. In the following we define the IP address of the DNS server that we are going to use as **192.168.2.12**.

```
nameserver 192.168.2.12
```

We can test the DNS configuration via the nslookup command as follows. In this examine we will query the IP address of the DNS name of **www.merimetso.net**. In this example we can see that the tool **nslookup** is querying the DNS server (**192.168.2.12**) to get the IP address for the computer system with the full qualified domain name (FQDN) **www.merimetso.net**

```
┌──(root㉿kali)-[/home/kali]
└─# nslookup
> www.merimetso.net
Server:         192.168.2.12
Address:        192.168.2.12#53

Name: www.merimetso.net
Address: 192.168.2.11
>
```

```
iface eth0 inet static
        . . . . . . . . .
        dns-nameserver 192.168.2.12
```

We can also define the DNS server via adding the following to the file **/etc/network/interfaces**.