

Linux ip binding on CentOS 7.

This exercise needs 2 machines: *vm1* and *vm2*

The outcome: The vms will have a second ip-address on the existing network interface.

1. Get the interface names on both vms, and we don't want to list the loopback interface.

```
[root@vm1 ~]# ip link show|grep -v lo
2: ens32: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state
UP mode DEFAULT qlen 1000
    link/ether 00:50:56:96:91:54 brd ff:ff:ff:ff:ff:ff

[root@vm2 ~]# ip link show | grep -v lo
2: ens32: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state
UP mode DEFAULT qlen 1000
    link/ether 00:50:56:96:91:53 brd ff:ff:ff:ff:ff:ff
```

2. On both vms get the ip-address.

```
[root@vm1 ~]# ip address show ens32 | grep "inet "
    inet 192.168.4.231/24 brd 192.168.4.255 scope global ens32

[root@vm2 ~]# ip address show ens32 | grep "inet "
    inet 192.168.4.232/24 brd 192.168.4.255 scope global ens32
```

3. From *vm1*, ping *vm2*.

```
[root@vm1 ~]# ping -c 1 192.168.4.232
PING 192.168.4.232 (192.168.4.232) 56(84) bytes of data.
64 bytes from 192.168.4.232: icmp_seq=1 ttl=64 time=0.447 ms
```

By default the interface file of a nic will have no suffix. If you want to create a binding interface, this interface gets a suffix. The suffix will be of the following type: `":1"` or `":2"` etc.

4. Copy the the interface file.

```
[root@vm1 ~]# cd /etc/sysconfig/network-scripts
[root@vm1 network-scripts]# cp ifcfg-ens32 ifcfg-ens32:1

[root@vm2 ~]# cd /etc/sysconfig/network-scripts
[root@vm2 network-scripts]# cp ifcfg-ens32 ifcfg-ens32:1
```

5. Change the interface-name to <interface>:1.  
Change the ip-address of the new interface.

```
[root@vm1 network-scripts]# sed -i 's/ens32/ens32:1/' ifcfg-ens32:1
[root@vm1 network-scripts]# sed -i 's/4.231/5.231/' ifcfg-ens32:1

[root@vm2 network-scripts]# sed -i 's/ens32/ens32:1/' ifcfg-ens32:1
[root@vm2 network-scripts]# sed -i 's/4.232/5.232/' ifcfg-ens32:1
```

6. Bring both interfaces up, and from vm2 ping vm1.

```
[root@vm1 network-scripts]# ifup ens32:1

[root@vm2 network-scripts]# ifup ens32:1
[root@vm2 network-scripts]# ping -c 1 192.168.5.231
PING 192.168.5.231 (192.168.5.231) 56(84) bytes of data.
64 bytes from 192.168.5.231: icmp_seq=1 ttl=64 time=0.513 ms
```

End of exercise.