# - LAB-M12. Managing Basic Networking

*This course is not approved or sponsored by Red Hat.*

## Introduction

## Solution

Уточните ipv4-адреса у преподавателя

**Configure IPv4 and IPv6 Addresses**

1. Check the status of your network devices:

nmcli device status

1. List the mac address for eth1, and copy it for later use:

ip address show eth1

1. Copy the interface files for eth0 to eth1:

sudo cp /etc/sysconfig/network-scripts/ifcfg-eth0 /etc/sysconfig/network-scripts/ifcfg-eth1

1. Open both files in a split screen:

sudo vim -O /etc/sysconfig/network-scripts/ifcfg-eth0 /etc/sysconfig/network-scripts/ifcfg-eth1

1. In the ifcfg-eth1 file, replace the contents of the file with the following:

BOOTPROTO=static

DEVICE=eth1

HWADDR=<ETH1\_MAC\_ADDRESS>

ONBOOT=yes

STARTMODE=auto

TYPE=Ethernet

IPADDR=10.0.1.21

NETMASK=255.255.255.0

1. Save and exit the file:

ESC

:wqa

1. Check the status of the network devices:

nmcli device status

1. Activate eth1:

sudo ifup eth1

1. Is eth1 now connected? Check the status of the network devices again:

nmcli device status

ip addr show eth1

1. List the ip address for both network interfaces:

{ ip a s eth0 ; ip a s eth1 ; } | grep inet\

1. Test connectivity between the two interfaces:

ping -I <ETH0\_IP\_ADDRESS> <ETH1\_UP\_ADDRESS>

ping -I <ETH1\_IP\_ADDRESS> <ETH0\_UP\_ADDRESS>

1. List the ip address for both network interfaces, including the IPv6 addresses:

{ ip a s eth0 ; ip a s eth1 ; } | grep 'inet\|inet6'

**Configure Hostname Resolution**

1. Check the current repositories that provide the dig command:

sudo yum whatprovides dig

1. Install bind-utils:

sudo yum install bind-utils

1. Ping linux.com:

ping linux.com

1. Does the IP address look correct?
2. Retrieve the IP address for the nameserver:

cat /etc/resolv.conf

1. Using the nameserver IP address, verify the IP address for linux.com:

dig@<NAMESERVER\_IP\_ADDRESS> linux.com

1. In the nsswitch.conf file, update the hosts line to show the following:

sudo vim nsswitch.conf

dns files myhostname

1. Save and exit the file:

ESC

ZZ

1. Ping linux.com again. Does the IP address look correct? Can you ping linux.com successfully?
2. Open the /etc/hosts file:

sudo vim /etc/hosts

1. Remove the line that references the 10.20.30.40 IP address.
2. Save and exit the file:

ESC

ZZ

1. In the nsswitch.conf file, revert the changes that were made to the hosts line:

sudo vim nsswitch.conf

files dns myhostname

1. Ping linux.com again:

ping linux.com

**Configure Network Services to Start Automatically at Boot**

1. Check the status of the network devices:

nmcli device status

1. Check the status of NetworkManager:

sudo systemctl status NetworkManager

1. Verify that the network interfaces are set to start ONBOOT:

grep ONBOOT /etc/sysconfig/network-scripts/\*

## Conclusion

Congratulations — you've completed this hands-on lab!