

## Assignment 6 Ansible + Containerlab

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```
nithiroj@nithiroj-Nitro-AN515-57 ~/modern-network-2025/lab6 main sudo containerlab deploy +  
[sudo] password for nithiroj:  
23:35:55 INFO Containerlab started version=0.73.0  
23:35:55 INFO Parsing & checking topology file=project.clab.yml  
23:35:55 INFO Creating docker network name=clab IPv4 subnet=172.20.20.0/24 IPv6 subnet=3fff:172:20:20::/64 MTU=0  
23:35:56 INFO Creating lab directory path=/home/nithiroj/modern-network-2025/lab6/clab-project  
23:35:56 INFO Creating container name=srl1  
23:35:56 INFO Creating container name=srl2  
23:35:56 INFO Running postdeploy actions kind=nokia_srlinux node=srl2  
23:35:56 INFO Created link: srl1:e1-1 ----- srl2:e1-1  
23:35:56 INFO Running postdeploy actions kind=nokia_srlinux node=srl1  
23:36:12 INFO Adding host entries path=/etc/hosts  
23:36:12 INFO Adding SSH config for nodes path=/etc/ssh/ssh_config.d/clab-project.conf  


| Name              | Kind/Image                                    | State   | IPv4/6 Address                   |
|-------------------|-----------------------------------------------|---------|----------------------------------|
| clab-project-srl1 | nokia_srlinux<br>ghcr.io/nokia/srlinux:latest | running | 172.20.20.3<br>3fff:172:20:20::3 |
| clab-project-srl2 | nokia_srlinux<br>ghcr.io/nokia/srlinux:latest | running | 172.20.20.2<br>3fff:172:20:20::2 |

  
nithiroj@nithiroj-Nitro-AN515-57 ~/modern-network-2025/lab6 main sudo docker ps -a  
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES  
ea7a1d68315f ghcr.io/nokia/srlinux:latest "/tini -- /usr/local..." 49 seconds ago Up 49 seconds clab-project-srl2  
0b8922cfdf89c ghcr.io/nokia/srlinux:latest "/tini -- /usr/local..." 49 seconds ago Up 49 seconds clab-project-srl1  
nithiroj@nithiroj-Nitro-AN515-57 ~/modern-network-2025/lab6 main  
Ln 27, Col 1 (17 selected) Spaces: 2 UTF-8
```

Container lab deploy and docker ps -a

```
nithiroj@nithiroj-Nitro-AN515-57 ~/modern-network-2025/lab6 main ping 172.20.20.2 -c 3  
ping 172.20.20.3 -c 3  
PING 172.20.20.2 (172.20.20.2) 56(84) bytes of data.  
64 bytes from 172.20.20.2: icmp_seq=1 ttl=64 time=1.13 ms  
64 bytes from 172.20.20.2: icmp_seq=2 ttl=64 time=1.10 ms  
64 bytes from 172.20.20.2: icmp_seq=3 ttl=64 time=1.10 ms  
  
--- 172.20.20.2 ping statistics ---  
3 packets transmitted, 3 received, 0% packet loss, time 2002ms  
rtt min/avg/max/mdev = 1.096/1.107/1.129/0.015 ms  
PING 172.20.20.3 (172.20.20.3) 56(84) bytes of data.  
64 bytes from 172.20.20.3: icmp_seq=1 ttl=64 time=1.11 ms  
64 bytes from 172.20.20.3: icmp_seq=2 ttl=64 time=1.14 ms  
64 bytes from 172.20.20.3: icmp_seq=3 ttl=64 time=1.12 ms  
  
--- 172.20.20.3 ping statistics ---  
3 packets transmitted, 3 received, 0% packet loss, time 2002ms  
rtt min/avg/max/mdev = 1.107/1.121/1.141/0.014 ms  
nithiroj@nithiroj-Nitro-AN515-57 ~/modern-network-2025/lab6 main  
Ln 30, Col 1 (43 selected) Spaces: 2 UTF-8
```

Ping test to clab-project-srl1 & srl2

```

nithiroj@nithiroj-Nitro-AN515-57 ~/modern-network-2025/lab6 $ main $ sudo docker exec lab-project-srl1 bash -c "printf 'PermitRootLogin yes\nPasswordAuthentication yes\nPubkeyAuthentication yes\nUsePAM yes\n' > /etc/ssh/sshd_config_mgmt"
nithiroj@nithiroj-Nitro-AN515-57 ~/modern-network-2025/lab6 $ main $ sudo docker exec lab-project-srl2 bash -c "printf 'PermitRootLogin yes\nPasswordAuthentication yes\nPubkeyAuthentication yes\nUsePAM yes\n' > /etc/ssh/sshd_config_mgmt"
nithiroj@nithiroj-Nitro-AN515-57 ~/modern-network-2025/lab6 $ main $ sudo docker exec lab-project-srl1 bash -c "pkill sshd; sleep 2; /usr/sbin/sshd"
nithiroj@nithiroj-Nitro-AN515-57 ~/modern-network-2025/lab6 $ main $ sudo docker exec lab-project-srl2 bash -c "pkill sshd; sleep 2; /usr/sbin/sshd"
nithiroj@nithiroj-Nitro-AN515-57 ~/modern-network-2025/lab6 $ main $ sudo docker exec -it lab-project-srl1 bash
root@srl1:~# passwd
New password:
Retype new password:
passwd: password updated successfully
root@srl1:~# exit
exit
nithiroj@nithiroj-Nitro-AN515-57 ~/modern-network-2025/lab6 $ main $ sudo docker exec -it lab-project-srl2 bash
root@srl2:~# passwd
New password:
Retype new password:
passwd: password updated successfully
root@srl2:~# exit
exit

```

Config ssh on docker

```

x nithiroj@nithiroj-Nitro-AN515-57 ~/modern-network-2025/lab6 $ main $ ssh-keygen -f "/home/$USER/.ssh/known_hosts" -R "172.20.20.2"
# Host 172.20.20.2 found: line 1
# Host 172.20.20.2 found: line 2
# Host 172.20.20.2 found: line 3
/home/nithiroj/.ssh/known_hosts updated.
Original contents retained as /home/nithiroj/.ssh/known_hosts.old
nithiroj@nithiroj-Nitro-AN515-57 ~/modern-network-2025/lab6 $ main $ ssh-keygen -f "/home/$USER/.ssh/known_hosts" -R "172.20.20.3"
# Host 172.20.20.3 found: line 1
# Host 172.20.20.3 found: line 2
# Host 172.20.20.3 found: line 3
/home/nithiroj/.ssh/known_hosts updated.
Original contents retained as /home/nithiroj/.ssh/known_hosts.old
nithiroj@nithiroj-Nitro-AN515-57 ~/modern-network-2025/lab6 $ main $ ssh root@172.20.20.2
The authenticity of host '172.20.20.2 (172.20.20.2)' can't be established.
ED25519 key fingerprint is SHA256:/aXA3LTj5ZVv4N5AnyRXy9Sb6GpPb0020bPGwTwNdM.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '172.20.20.2' (ED25519) to the list of known hosts.
(root@172.20.20.2) Password:
root@srl2:~# exit
logout
Connection to 172.20.20.2 closed.
nithiroj@nithiroj-Nitro-AN515-57 ~/modern-network-2025/lab6 $ main $ ssh root@172.20.20.3
The authenticity of host '172.20.20.3 (172.20.20.3)' can't be established.
ED25519 key fingerprint is SHA256:iiJLQD0YI37tjnD+7GkST7ID1DdxqVjvTNzI05hvc7cY.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '172.20.20.3' (ED25519) to the list of known hosts.
(root@172.20.20.3) Password:
root@srl1:~# exit
logout
Connection to 172.20.20.3 closed.

```

Ssh keygen and ssh to root on lab-project-srl1 & srl2

```

nithiroj@nithiroj-Nitro-AN515-57 ~/modern-network-2025/lab6 $ main $ ansible -i hosts.ini lab -m ansible.builtin.ping
[WARNING]: sftp transfer mechanism failed on [172.20.20.2]. Use ANSIBLE_DEBUG=1 to see detailed information
[WARNING]: scp transfer mechanism failed on [172.20.20.2]. Use ANSIBLE_DEBUG=1 to see detailed information
lab-srl2 | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3.11"
    },
    "changed": false,
    "ping": "pong"
}
[WARNING]: sftp transfer mechanism failed on [172.20.20.3]. Use ANSIBLE_DEBUG=1 to see detailed information
[WARNING]: scp transfer mechanism failed on [172.20.20.3]. Use ANSIBLE_DEBUG=1 to see detailed information
clab-srl2-srl1 | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3.11"
    },
    "changed": false,
    "ping": "pong"
}

```

Ansible ping all

```
nithiroj@nithiroj-Nitro-AN515-57 ~/modern-network-2025/lab6 ▶ main ▶ ansible-playbook -i hosts.ini showifconfig.yml

PLAY [show ifconfig with shell command] ****
TASK [Gathering Facts] ****
[WARNING]: sftp transfer mechanism failed on [172.20.20.2]. Use ANSIBLE_DEBUG=1 to see detailed information
[WARNING]: scp transfer mechanism failed on [172.20.20.2]. Use ANSIBLE_DEBUG=1 to see detailed information
ok: [clab-srl02-srl2]
[WARNING]: sftp transfer mechanism failed on [172.20.20.3]. Use ANSIBLE_DEBUG=1 to see detailed information
[WARNING]: scp transfer mechanism failed on [172.20.20.3]. Use ANSIBLE_DEBUG=1 to see detailed information
ok: [clab-srl02-srl1]

TASK [show ifconfig] ****
changed: [clab-srl02-srl2]
changed: [clab-srl02-srl1]

TASK [debug] ****
ok: [clab-srl02-srl1] => {
    "output.stdout_lines": [
        "gateway: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500",
        "inet 127.250.250.1 netmask 255.255.255.252 broadcast 127.250.250.3",
        "inet6 fe80::1 prefixlen 120 scopeid 0x20<link>",
        "ether 1a:ef:00:ff:00:00 txqueuelen 1000 (Ethernet)",
        "RX packets 13 bytes 990 (990.0 B)",
        "RX errors 0 dropped 0 overruns 0 frame 0",
        "TX packets 11 bytes 830 (830.0 B)",
        "TX errors 0 dropped 2 overruns 0 carrier 0 collisions 0",
        "...",
        "lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536",
        "inet 127.0.0.1 netmask 255.0.0.0",
        "inet6 ::1 prefixlen 128 scopeid 0x10<host>",
        "loop txqueuelen 1000 (Local Loopback)",
        "RX packets 0 bytes 0 (0.0 B)",
        "RX errors 0 dropped 0 overruns 0 frame 0",
        "TX packets 0 bytes 0 (0.0 B)",
        "TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0",
        "...",
        "mgmt0.0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500",
        "inet 172.20.20.3 netmask 255.255.255.0 broadcast 172.20.20.255",
        "inet6 fe80::42:acff:fe14:1403 prefixlen 64 scopeid 0x20<link>",
        "inet6 3fff:172:20:20::3 prefixlen 64 scopeid 0x0<global>",
        "ether 02:42:ac:14:14:03 txqueuelen 1000 (Ethernet)",
        "RX packets 1685 bytes 1563497 (1.4 MiB)",
        "RX errors 0 dropped 0 overruns 0 frame 0",
        "TX packets 1019 bytes 148854 (145.3 KiB)",
        "TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0"
    ]
}

ok: [clab-srl02-srl2] => {
    "output.stdout_lines": [
        "gateway: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500",
        "inet 127.250.250.1 netmask 255.255.255.252 broadcast 127.250.250.3",
        "inet6 fe80::1 prefixlen 120 scopeid 0x20<link>",
        "ether 1a:a7:01:ff:00:00 txqueuelen 1000 (Ethernet)",
        "RX packets 13 bytes 990 (990.0 B)",
        "RX errors 0 dropped 0 overruns 0 frame 0",
        "TX packets 11 bytes 830 (830.0 B)",
        "TX errors 0 dropped 2 overruns 0 carrier 0 collisions 0",
        "...",
        "lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536",
        "inet 127.0.0.1 netmask 255.0.0.0",
        "inet6 ::1 prefixlen 128 scopeid 0x10<host>",
        "loop txqueuelen 1000 (Local Loopback)",
        "RX packets 0 bytes 0 (0.0 B)",
        "RX errors 0 dropped 0 overruns 0 frame 0",
        "TX packets 0 bytes 0 (0.0 B)",
        "TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0",
        "...",
        "mgmt0.0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500",
        "inet 172.20.20.2 netmask 255.255.255.0 broadcast 172.20.20.255",
        "inet6 3fff:172:20:20::2 prefixlen 64 scopeid 0x0<global>",
        "inet6 fe80::42:acff:fe14:1402 prefixlen 64 scopeid 0x20<link>",
        "ether 02:42:ac:14:14:02 txqueuelen 1000 (Ethernet)",
        "RX packets 1679 bytes 1565780 (1.4 MiB)",
        "RX errors 0 dropped 0 overruns 0 frame 0",
        "TX packets 951 bytes 143906 (140.5 KiB)",
        "TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0"
    ]
}

PLAY RECAP ****
clab-srl02-srl1      : ok=3    changed=1    unreachable=0   failed=0    skipped=0    rescued=0    ignored=0
clab-srl02-srl2      : ok=3    changed=1    unreachable=0   failed=0    skipped=0    rescued=0    ignored=0
```

Ansible play book Show interface

```

! project_Nokia_SR_Linux.pdf u   ! showifconfig.yml u   ! change_loopback_ip_address.yml u   ! project.clab.y
lab6 > ! showifconfig.yml > {} 0 > [] tasks > {} 0
  1 - name: show ifconfig with shell command
  2 hosts: all
  3 become: yes
  4
  5 tasks:
  6   - name: show ifconfig
  7     shell: ifconfig -a
  8     register: output
  9     - debug:
 10       var: output.stdout_lines
 11
 12

```

Showifconfig.yml file

```

nithiroj@nithiroj-Nitro-AN515-57 ~ /modern-network-2025/lab6 > ! main > ansible-playbook -i hosts.ini change_loopback_ip_address.yml
PLAY [change loopback ip address] ****
TASK [Gathering Facts] ****
[WARNING]: sftp transfer mechanism failed on [172.20.20.3]. Use ANSIBLE_DEBUG=1 to see detailed information
[WARNING]: scp transfer mechanism failed on [172.20.20.3]. Use ANSIBLE_DEBUG=1 to see detailed information
ok: [clab-srl02-srl1]
[WARNING]: sftp transfer mechanism failed on [172.20.20.2]. Use ANSIBLE_DEBUG=1 to see detailed information
[WARNING]: scp transfer mechanism failed on [172.20.20.2]. Use ANSIBLE_DEBUG=1 to see detailed information
ok: [clab-srl02-srl2]

TASK [show ifconfig before change ip address] ****
changed: [clab-srl02-srl2]
changed: [clab-srl02-srl1]

TASK [debug] ****
ok: [clab-srl02-srl1] => {
    "output.stdout_lines": [
        "gateway: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500",
        "inet 127.250.250.1  netmask 255.255.255.252  broadcast 127.250.250.3",
        "inet6 fe80::1  prefixlen 120  scopeid 0x20<link>",
        "ether 1a:ef:00:ff:00:00  txqueuelen 1000  (Ethernet)",
        "RX packets 14  bytes 1060 (1.0 KiB)",
        "RX errors 0  dropped 0  overruns 0  frame 0",
        "TX packets 11  bytes 830 (830.0 B)",
        "TX errors 0  dropped 2  overruns 0  carrier 0  collisions 0",
        "...",
        "lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536",
        "inet 127.0.0.1  netmask 255.0.0.0",
        "inet6 ::1  prefixlen 128  scopeid 0x10<host>",
        "loop  txqueuelen 1000  (Local Loopback)",
        "RX packets 0  bytes 0 (0.0 B)",
        "RX errors 0  dropped 0  overruns 0  frame 0",
        "TX packets 0  bytes 0 (0.0 B)",
        "TX errors 0  dropped 0  overruns 0  carrier 0  collisions 0",
        "...",
        "mgmt0.0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500",
        "inet 172.20.20.3  netmask 255.255.255.0  broadcast 172.20.20.255",
        "inet6 fe80::42:acff:fe14:1403  prefixlen 64  scopeid 0x20<link>",
        "inet6 3fff:172:20:20::3  prefixlen 64  scopeid 0x0<global>",
        "ether 02:42:ac:14:14:03  txqueuelen 1000  (Ethernet)",
        "RX packets 2026  bytes 1946650 (1.8 MiB)",
        "RX errors 0  dropped 0  overruns 0  frame 0",
        "TX packets 1225  bytes 177806 (173.6 KiB)",
        "TX errors 0  dropped 0  overruns 0  carrier 0  collisions 0"
    ]
}

```

```

ok: [clab-srl02-srl2] => {
    "output.stdout_lines": [
        "gateway: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500",
        "inet 127.250.250.1 netmask 255.255.255.252 broadcast 127.250.250.3",
        "inet6 fe80::1 prefixlen 120 scopeid 0x20<link>",
        "ether 1a:a7:01:ff:00:00 txqueuelen 1000 (Ethernet)",
        "RX packets 13 bytes 990 (990.0 B)",
        "RX errors 0 dropped 0 overruns 0 frame 0",
        "TX packets 11 bytes 830 (830.0 B)",
        "TX errors 0 dropped 2 overruns 0 carrier 0 collisions 0",
        "...",
        "lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536",
        "inet 127.0.0.1 netmask 255.0.0.0",
        "inet6 ::1 prefixlen 128 scopeid 0x10<host>",
        "loop txqueuelen 1000 (Local Loopback)",
        "RX packets 0 bytes 0 (0.0 B)",
        "RX errors 0 dropped 0 overruns 0 frame 0",
        "TX packets 0 bytes 0 (0.0 B)",
        "TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0",
        "...",
        "mgmt0:0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500",
        "inet 172.20.20.2 netmask 255.255.255.0 broadcast 172.20.20.255",
        "inet6 3fff:172:20:20::2 prefixlen 64 scopeid 0x0<global>",
        "inet6 fe80::42:acff:fe14:1402 prefixlen 64 scopeid 0x20<link>",
        "ether 02:42:ac:14:14:02 txqueuelen 1000 (Ethernet)",
        "RX packets 2023 bytes 1948535 (1.8 MiB)",
        "RX errors 0 dropped 0 overruns 0 frame 0",
        "TX packets 1157 bytes 172862 (168.8 KiB)",
        "TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0"
    ]
}

```

TASK [change ip address] \*\*\*\* You can paste the image from the clipboard.

```

changed: [clab-srl02-srl1]
changed: [clab-srl02-srl2]

TASK [show ifconfig after change ip address] ****
changed: [clab-srl02-srl1]
changed: [clab-srl02-srl2]

TASK [debug] ****
ok: [clab-srl02-srl1] => {
    "output.stdout_lines": [
        "gateway: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500",
        "inet 127.250.250.1 netmask 255.255.255.252 broadcast 127.250.250.3",
        "inet6 fe80::1 prefixlen 120 scopeid 0x20<link>",
        "ether 1a:ef:00:ff:00:00 txqueuelen 1000 (Ethernet)",
        "RX packets 14 bytes 1060 (1.0 KiB)",
        "RX errors 0 dropped 0 overruns 0 frame 0",
        "TX packets 11 bytes 830 (830.0 B)",
        "TX errors 0 dropped 2 overruns 0 carrier 0 collisions 0",
        "...",
        "lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536",
        "inet 172.148.156.31 netmask 255.255.255.0",
        "inet6 ::1 prefixlen 128 scopeid 0x10<host>",
        "loop txqueuelen 1000 (Local Loopback)",
        "RX packets 0 bytes 0 (0.0 B)",
        "RX errors 0 dropped 0 overruns 0 frame 0",
        "TX packets 0 bytes 0 (0.0 B)",
        "TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0",
        "...",
        "mgmt0:0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500",
        "inet 172.20.20.3 netmask 255.255.255.0 broadcast 172.20.20.255",
        "inet6 fe80::42:acff:fe14:1403 prefixlen 64 scopeid 0x20<link>",
        "inet6 3fff:172:20:20::3 prefixlen 64 scopeid 0x0<global>",
        "ether 02:42:ac:14:14:03 txqueuelen 1000 (Ethernet)",
        "RX packets 2251 bytes 2198988 (2.0 MiB)",
        "RX errors 0 dropped 0 overruns 0 frame 0",
        "TX packets 1358 bytes 190716 (186.2 KiB)",
        "TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0"
    ]
}

```

```

ok: [clab-srl02-srl2] => {
    "output.stdout_lines": [
        "gateway: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500",
        "inet 127.250.250.1  netmask 255.255.255.252  broadcast 127.250.250.3",
        "inet6 fe80::1  prefixlen 120  scopeid 0x20<link>",
        "ether 1a:a7:01:ff:00:00  txqueuelen 1000  (Ethernet)",
        "RX packets 13  bytes 990 (990.0 B)",
        "RX errors 0  dropped 0  overruns 0  frame 0",
        "TX packets 11  bytes 830 (830.0 B)",
        "TX errors 0  dropped 2 overruns 0  carrier 0  collisions 0",
        ...
        "lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536",
        "inet 172.148.156.31  netmask 255.255.255.0",
        "inet6 ::1  prefixlen 128  scopeid 0x10<host>",
        "loop  txqueuelen 1000  (Local Loopback)",
        "RX packets 0  bytes 0 (0.0 B)",
        "RX errors 0  dropped 0  overruns 0  frame 0",
        "TX packets 0  bytes 0 (0.0 B)",
        "TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0",
        ...
        "mgmt0:0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500",
        "inet 172.20.20.2  netmask 255.255.255.0  broadcast 172.20.20.255",
        "inet6 3fff:172:20:20::  prefixlen 64  scopeid 0x0<global>",
        "inet6 fe80::42:acff:fe14:1402  prefixlen 64  scopeid 0x20<link>",
        "ether 02:42:ac:14:14:02  txqueuelen 1000  (Ethernet)",
        "RX packets 2247  bytes 2201407 (2.0 MiB)",
        "RX errors 0  dropped 0  overruns 0  frame 0",
        "TX packets 1275  bytes 184810 (180.4 KibB)",
        "TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0"
    ]
}

PLAY RECAP ****
clab-srl02-srl1      : ok=6    changed=3    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
clab-srl02-srl2      : ok=6    changed=3    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

```

nithiroj@nithiroj-Nitro-AN515-57 ~ /modern-network-2025/lab6 ➜ main ➔

### Ansible-playbook change loopback ip address

```

! showifconfig.yml u   ! change_loopback_ip_address.yml u ×   ! project.clab.yml
iect_Nokia_SR_Linux.pdf u

lab6 > ! change_loopback_ip_address.yml > { } 0 > [ ] tasks > { } 4 > { } debug > abc var
1   - name: change loopback ip address
2     hosts: all
3     become: yes
4
5     tasks:
6       - name: show ifconfig before change ip address
7         shell: ifconfig -a
8         register: output
9       - debug:
10         var: output.stdout_lines
11
12       - name: change ip address
13         shell: ifconfig lo 172.148.156.31 netmask 255.255.255.0
14
15       - name: show ifconfig after change ip address
16         shell: ifconfig -a
17         register: output
18       - debug:
19         var: output.stdout_lines

```

Change\_loopback\_ip\_address.yml file

```
--{ running }--[ ]--
A:admin@srl2# show version
-----
Hostname : srl2
Chassis Type : 7220 IXR-D2L
Part Number : Sim Part No.
Serial Number : Sim Serial No.
System HW MAC Address: 1A:A7:01:FF:00:00
OS : SR Linux
Software Version : v25.10.1
Build Number : 399-g90c1dbe35ef
Architecture : x86_64
Last Booted : 2026-02-11T16:35:59.933Z
Total Memory : 32638608 kB
Free Memory : 23739068 kB
```

### Nokiasrlinux show version

```
--{ running }--[ ]--
A:admin@srl2# show network-instance route-table all
IPv4 unicast route table of network instance mgmt
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Prefix | ID | Route Type | Route Owner | Active | Origin Network Instance | Metric | Pref | Next-hop (Type) | Next-hop Interface | Backup Next-hop (Type) | Backup Next-hop Interface |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0.0.0.0/0 | 1 | dhcp | dhcp_client_mgr | True | mgmt | 0 | 5 | 172.20.20.1 | mgmt0.0 |          |          |
| 172.20.20.0/24 | 0 | linux | linux_mgr | False | mgmt | 0 | 5 | 172.20.20.0 | mgmt0.0 |          |          |
| 172.20.20.0/24 | 1 | local | net_inst_mgr | True | mgmt | 0 | 0 | 172.20.20.2 | mgmt0.0 |          |          |
| 172.20.20.2/32 | 1 | host | net_inst_mgr | True | mgmt | 0 | 0 | None | None |          |          |
| 172.20.20.255/32 | 1 | host | net_inst_mgr | True | mgmt | 0 | 0 | None | None |          |          |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
IPv4 routes total : 5
IPv4 prefixes with active routes : 4
IPv4 prefixes with active ECMP routes: 0

IPv6 unicast route table of network instance mgmt
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Prefix | ID | Route Type | Route Owner | Active | Origin Network Instance | Metric | Pref | Next-hop (Type) | Next-hop Interface | Backup Next-hop (Type) | Backup Next-hop Interface |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| ::/0 | 1 | dhcp | dhcp_client_mgr | True | mgmt | 0 | 5 | 3fff:172:20:20::1 | mgmt0.0 |          |          |
| 3fff:172:20:20::/64 | 0 | linux | linux_mgr | False | mgmt | 0 | 5 | 3fff:172:20:20:: | mgmt0.0 |          |          |
| 3fff:172:20:20::/64 | 1 | local | net_inst_mgr | True | mgmt | 0 | 0 | 3fff:172:20:20::2 | mgmt0.0 |          |          |
| 3fff:172:20:20::2/128 | 1 | host | net_inst_mgr | True | mgmt | 0 | 0 | None | None |          |          |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
IPv6 routes total : 4
IPv6 prefixes with active routes : 3
IPv6 prefixes with active ECMP routes: 0

--{ running }--[ ]--
A:admin@srl2#
```

### Nokiasrlinux show network-instance route-table all

```
--{ running }--[ ]--
A:admin@srl2# show platform
+-----+-----+-----+-----+-----+-----+
| Module Type | ID | Admin State | Operational State | Model | Last Change |
+-----+-----+-----+-----+-----+-----+
| control | A | N/A | up | imm48-25g-sfp28+8-100g-qfp28+2-10g-sfp | 2026-02-11T16:35:59.933Z |
| linecard | 1 | N/A | up | imm48-25g-sfp28+8-100g-qfp28+2-10g-sfp | 2026-02-11T16:36:05.730Z |
+-----+-----+-----+-----+-----+-----+

--{ running }--[ ]--
A:admin@srl2# show interface
=====
ethernet-1/1 is up, speed 25G, type None
=====
mgmt0 is up, speed 1G, type None
mgmt0.0 is up
  Network-instances:
    * Name: mgmt (ip-vrf)
    Encapsulation : null
    Type : None
    IPv4 addr : 172.20.20.2/24 (dhcp, preferred)
    IPv6 addr : 3fff:172:20:20::2/64 (dhcp, preferred)
    IPv6 addr : fe80::42:acff:fe14:1402/64 (link-layer, preferred)
=====

Summary
  0 loopback interfaces configured
  1 ethernet interfaces are up
  1 management interfaces are up
  1 subinterfaces are up
=====

--{ running }--[ ]--
A:admin@srl2#
```

nokiasrlinux showplatform & interface