KLE Technological University

A Report On

Junos basics and configuring interfaces

Submitted By

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- **Step 1 : PuTTY installation and IP address assignment**

- Installing PuTTY : PuTTY is a software terminal emulator for Windows and Linux. It provides a text user interface to remote computers running any of its supported protocols, including SSH and Telnet.
- Assigning the IP address (here 10.10.10.1) to the COM port of PuTTY.

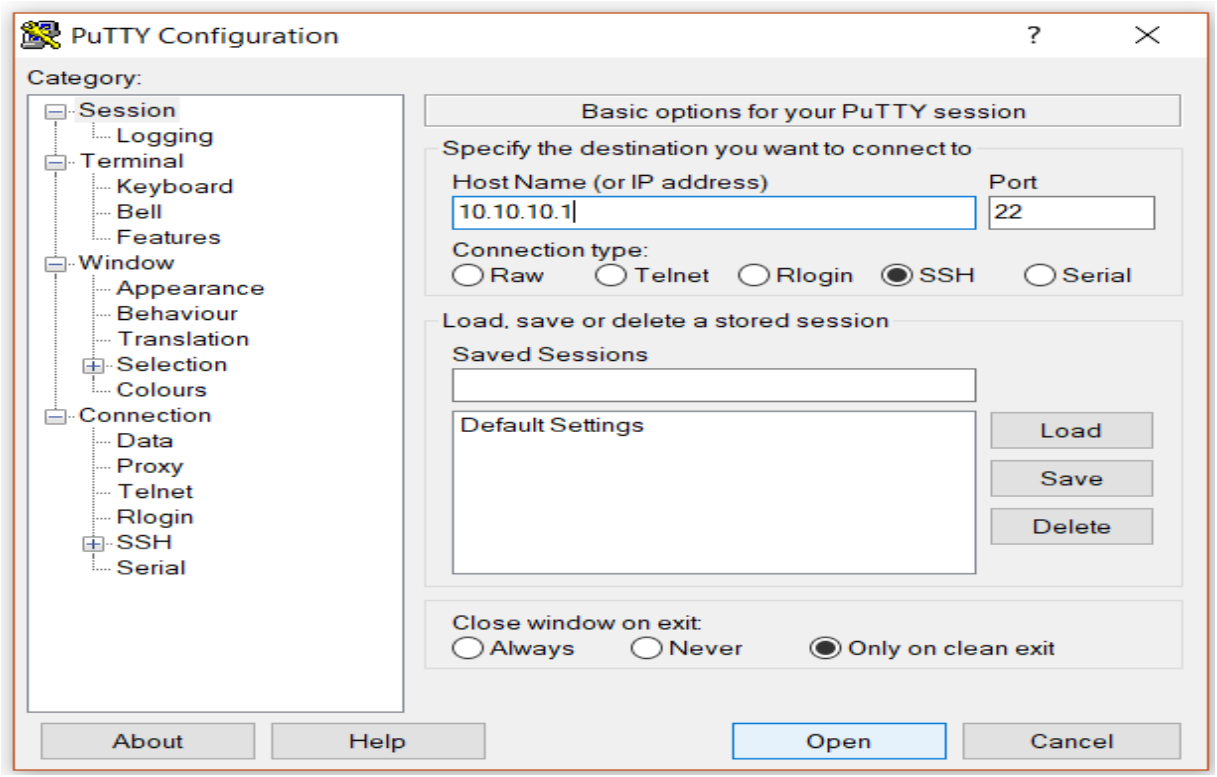

Fig.1

- Opening the 10.10.10.1 PuTTY terminal by clicking open button as shown in Fig.1.

- **Step 2 : Configuration**

Fig.2

- After connection, login interface will be provided to the user where user enters username (here: root) and password (here : root@123) .
- After correct authentication, user will be provide root access of the Junos (root#).

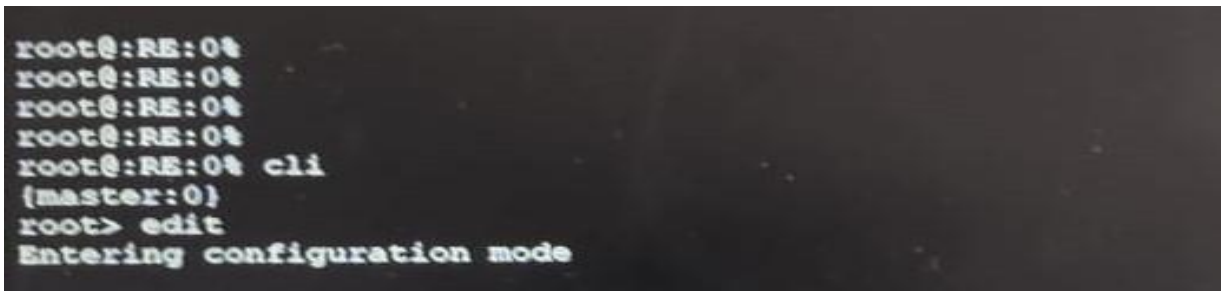

Fig.3

- Here, we use edit command in-order to switch over between the modes mentioned below (root > edit).

- As we know there are three modes :

  - ❖ CLI mode '>' : Command Line Interface mode is used to showcase the results of the configuration.
  - ❖ Shell script mode '%' : Used to add new features to the OS, basically used for research purposes.
  - ❖ Configure mode '#' : Used to set /assign the values.

- We need to enter Cli mode to configure the device.

- Then edit command is used to enter configuration mode.

- Here all configuration will be done

• Step 3 : Show Interface

- Command : < run show interfaces terse > is used to display the interface.

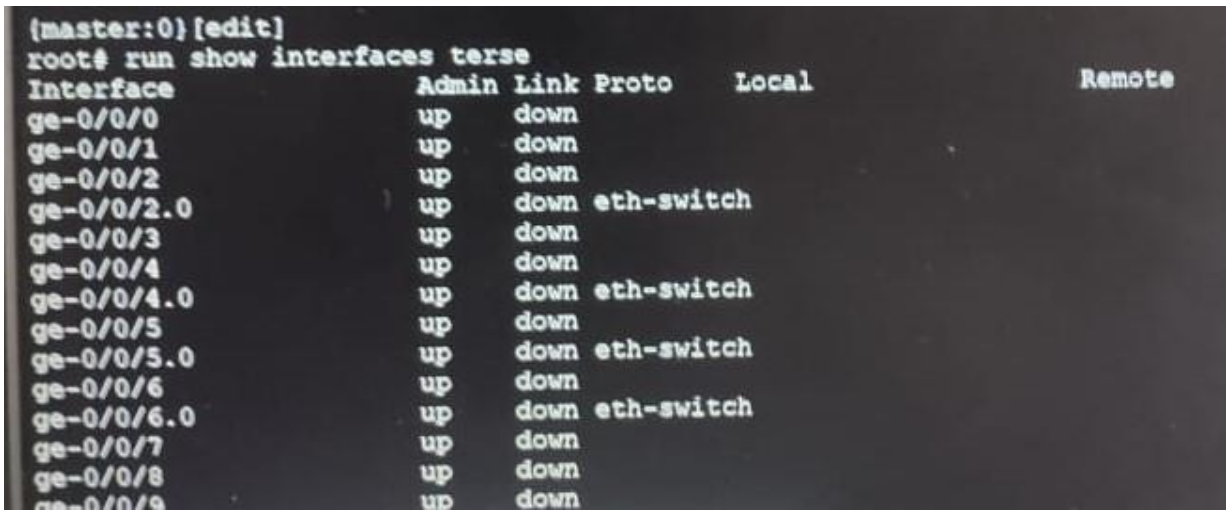

Fig.4

- **Step 4 : Delete the entire present configuration and set the new password to access the root.**

```
{master:0}[edit]
root# delete
This will delete the entire configuration
Delete everything under this level? [yes,no] (no) yes

{master:0}[edit]
root# set system root-authentication plain-text-password
New password:
Retype new password:
```

Fig.5

- **Step 5 : Enable ftp and ssh services.**

```
{master:0}[edit]
root# set system services ssh

{master:0}[edit]
root# set system services ftp

{master:0}[edit]
root# set interfaces me0.0 family inet address 100.100.100.1/24
```

Fig.6

- Now set the IP address given for the COM port in PuTTY (command : < set interfaces me0.0 family inet address 10.10.10.1/24 >)

- **Step 6 : Assigning Ids and port numbers to newly created virtual LAN's.**

```
{master:0}[edit]
root# set vlans DATA vlan-id 10

{master:0}[edit]
root# set vlans VOICE vlan-id 20

{master:0}[edit]
root# set interfaces ge-0/0/2 unit 0 family ethernet-switching vlan members DATA

{master:0}[edit]
root# set interfaces ge-0/0/5 unit 0 family ethernet-switching vlan members VOICE
```

Fig.7

- In command vlan-id ‘x’ , x specifies the id assigned to the vlan’s.
- Here we use port 2 as input and port 5 as output as seen in fig..
- Next we assign the IP address for the ports using Id’s as shown in the below fig.8.

```
{master:0}[edit]
root# set interfaces vlan unit 10 family inet address 192.168.3.1/24

{master:0}[edit]
root# set interfaces vlan unit 20 family inet address 192.168.4.1/24
```

Fig.8

- Next we use L3 interface for the following ports (port 2 and 5).

```
{master:0}[edit]
root# set vlans DATA l3-interface vlan.10

{master:0}[edit]
root# set vlans VOICE l3-interface vlan.20
```

Fig.9

- **Step 7 : Commit check and commit.**

```
{master:0}[edit]
root# commit
configuration check succeeds
commit complete
```

Fig.10

- The <commit check> command is used to check if the configuration will be saved or not.
- Then <commit> command will be used save the configuration.

- **Step 8 : Pinging servers and clients to know weather the connection is established or not.**

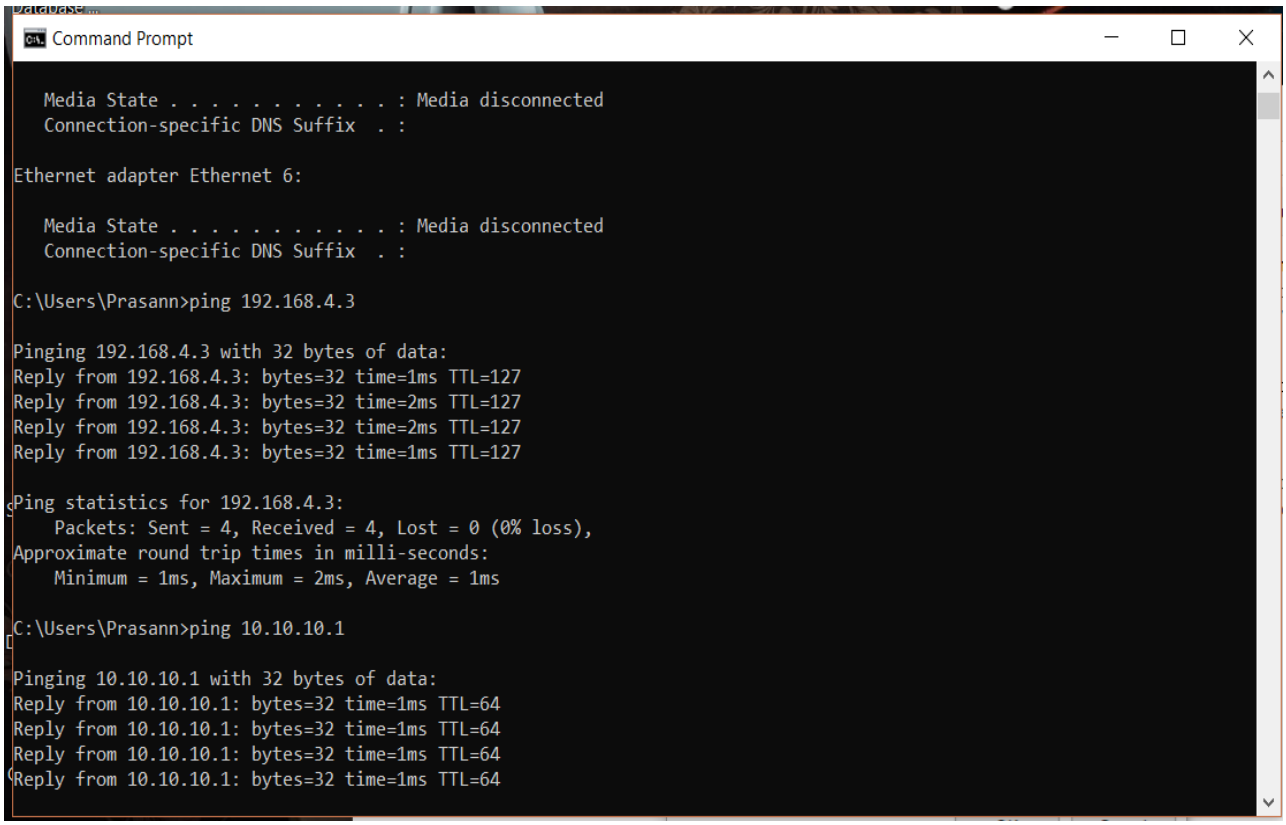
Command Prompt
Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . :
Ethernet adapter Ethernet 6:
Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . :
C:\Users\Prasann>ping 192.168.4.3
Pinging 192.168.4.3 with 32 bytes of data:
Reply from 192.168.4.3: bytes=32 time=1ms TTL=127
Reply from 192.168.4.3: bytes=32 time=2ms TTL=127
Reply from 192.168.4.3: bytes=32 time=2ms TTL=127
Reply from 192.168.4.3: bytes=32 time=1ms TTL=127
Ping statistics for 192.168.4.3:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 1ms, Maximum = 2ms, Average = 1ms
C:\Users\Prasann>ping 10.10.10.1
Pinging 10.10.10.1 with 32 bytes of data:
Reply from 10.10.10.1: bytes=32 time=1ms TTL=64
Reply from 10.10.10.1: bytes=32 time=1ms TTL=64
Reply from 10.10.10.1: bytes=32 time=1ms TTL=64
Reply from 10.10.10.1: bytes=32 time=1ms TTL=64

Fig.11

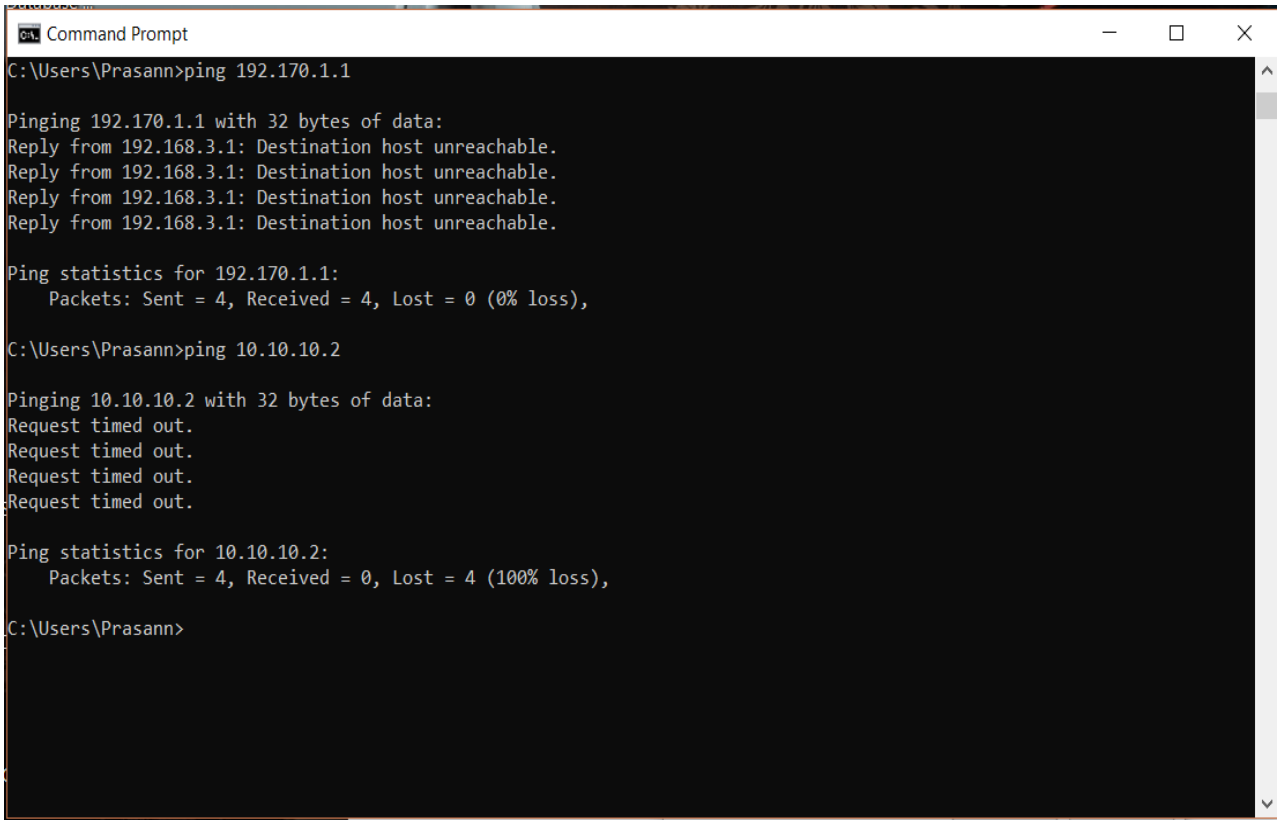
Command Prompt
C:\Users\Prasann>ping 192.170.1.1
Pinging 192.170.1.1 with 32 bytes of data:
Reply from 192.168.3.1: Destination host unreachable.
Reply from 192.168.3.1: Destination host unreachable.
Reply from 192.168.3.1: Destination host unreachable.
Reply from 192.168.3.1: Destination host unreachable.
Ping statistics for 192.170.1.1:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
C:\Users\Prasann>ping 10.10.10.2
Pinging 10.10.10.2 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 10.10.10.2:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\Users\Prasann>

Fig.12