

Adding GD

(Concept) Sat & Sun 11 to 12
GD 9 to 10

Previous Session

- IP addresses
- Protocol
- Port
- Network (LAN & WAN)
- Subnet & Implimentation

\$ ip

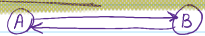
\$ ip address

\$ ip link

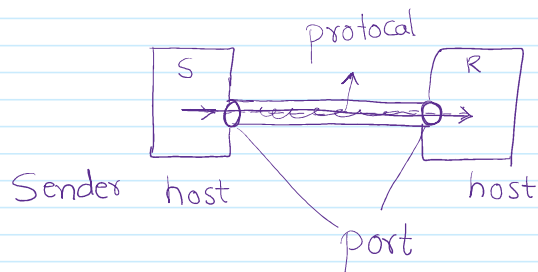
\$ ip route

- Repository.
 - System
 - Package
 - Source Code.

Network Communication (nc)

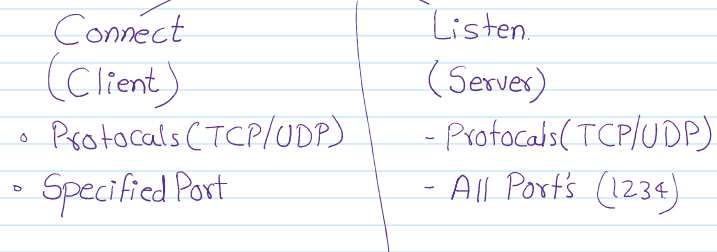


- netCat (nc)
 - N/w utility tool / Linux Network Command
 - Communication between Sender & Rec.
 - Message
 - Text
 - Binary
 - Trouble shooting
 - Open BSD



- Ubuntu
 - Debian
 - RedHat
 - Centos
- \$ nc ✓
\$ netcat ✓
\$ ncat *

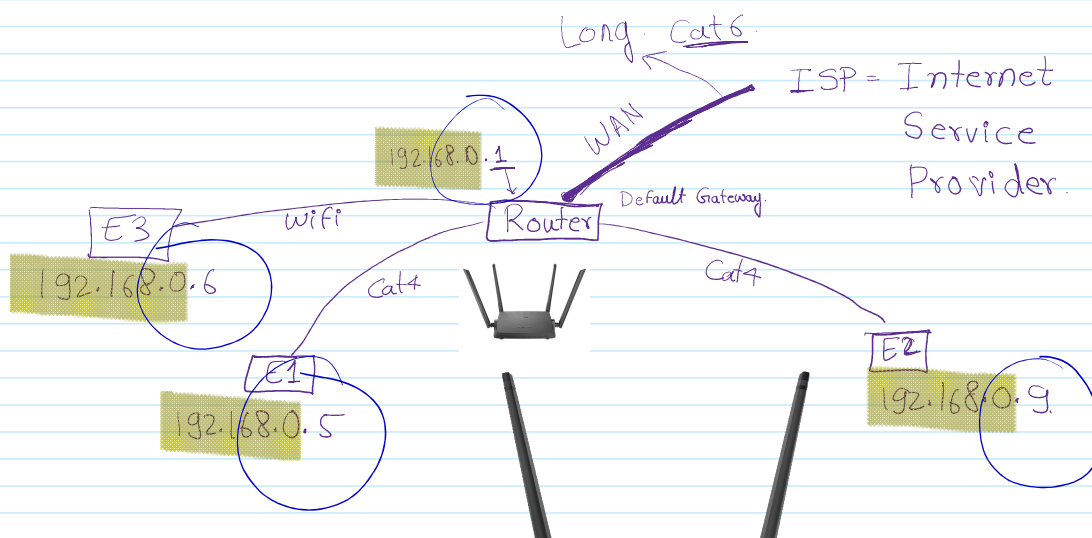
netcat 2 modes

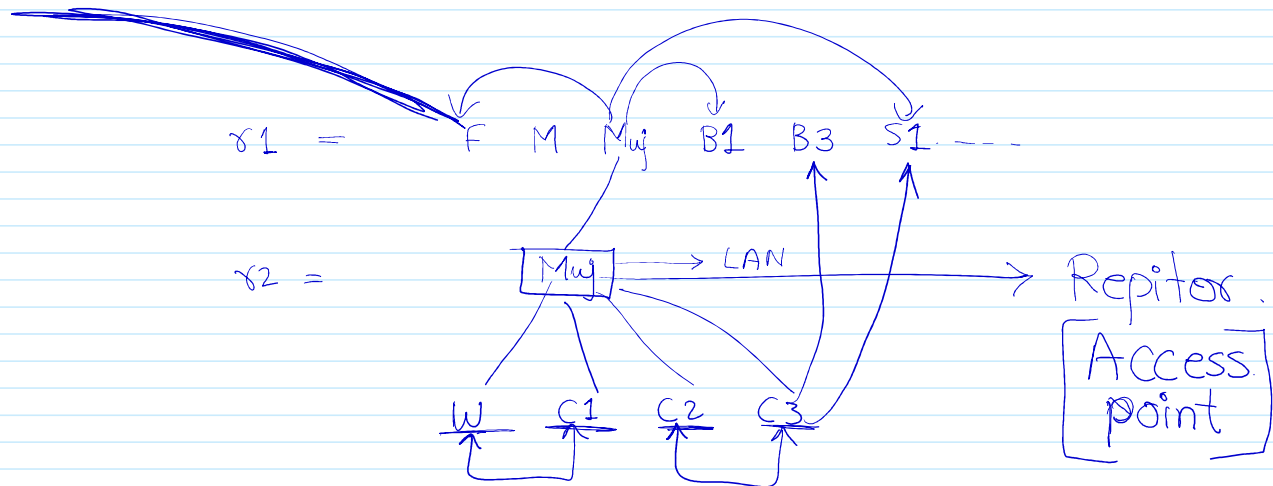
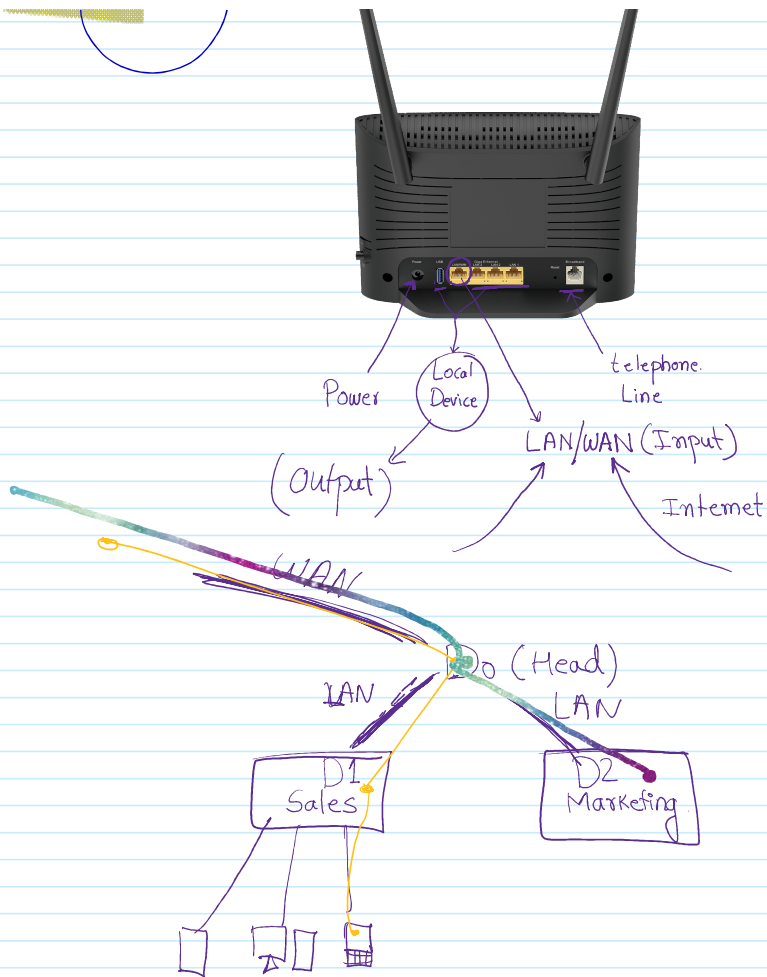


Format

\$ nc [options] <host> <port>

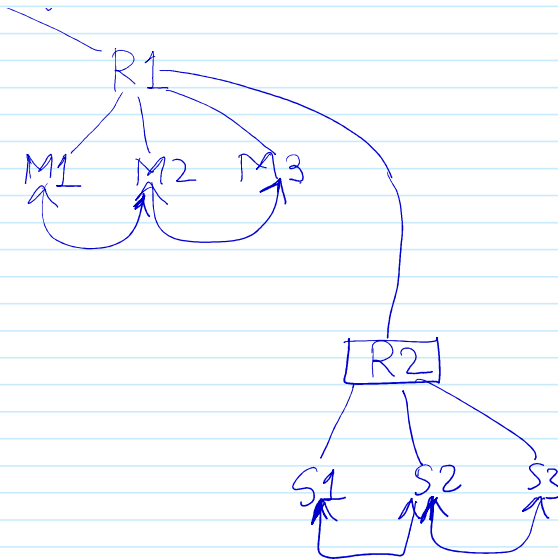
host = IP address (public / private)





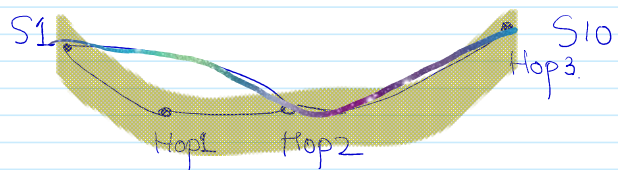
WAN
R1

192.168.0.10
192.168.0.12
192.168.0.16



IPv -4 / -6

UDP -U / -u / --udp



Sets hops for
 Source Routing.

-g h1,h2,---

Bind Port

-p PORT

--source-port } Connect Mode.

-l

Listen.

-v → Verbose.

```
sudo hostname s1
sudo apt install net-tools
ifconfig
172.31.54.26
```

```
ping <Private-IP>
```

Example1: Connect

```
Server$ nc -lv 1234
```

```
Client$ nc -v <ServerIP> 1234
```

Example2: Global Server Connection

```
Client$ nc -zv google.com 443
```

Example3: Connection stays open

```
Server$ nc -lkv 1234
```

```
Client$ nc -zv <ServerIP> 1234
```

Example4: Multiple Ports Scanning

```
Server$ nc -lkv 1234
```

```
Client$ nc -zv <ServerIP> 1230-1235
```

Example5: Scan Multiple Ports and Display only Open Ports

```
nc -zv 127.0.0.1 1200-1235 2>&1 | grep 'succeeded'
```

Example6: Send Simple Text File

```
Server$ touch file{0..999}.txt
```

```
Server$ tar -cvf file*.txt
```

```
Server$ nc -lv 1234 < file.zip
```

```
Client$ nc -zv <ServerIP> > file.zip
```