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**ROLL NO. : 46**
**CLASS : TE-4-D**
**SUBJECT : CN**

## EXPERIMENT NO.10

**AIM:** Perform Remote login using Telnet server

**THEORY:**

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Telnet protocol allows you to connect to remote hosts over TCP/IP network. Telnet was developed in 1969. Telnet was initially developed for private use where security was not primary concern. Telnet protocol has serious security issue. Security expert recommend that the use of Telnet for remote login should be discontinued under all normal circumstances. ● Telnet Server ● Telnet Client

**Telnet Sever**

Telnet server software is installed on remote host. You need to configure it before client can connect with it.

**Telnet Client**

Telnet client software allows you to connect telnet server. Once telnet client establishes a connection to the remote host, client becomes a virtual terminal, allowing you to communicate with the remote host from your computer.

**Security issue with Telnet**

- Telnet by default does not encrypt any data sent over the connection.
- Anyone who has access to network device located on the network between the two hosts like router, switch, hub or gateway where Telnet is being used can intercept the packets passing by and obtain login, password and whatever else is typed with a packet sniffer software.
- Telnet protocol have no implementations that would ensure that communication is carried out between the two hosts is not intercepted in the middle.
- In RHEL Telnet is part of the **xinetd** daemon.
- Telnet use plain text to transmit password.
- root user is not allowed to connect using Telnet.
- Command-line telnet clients are built into all major operating systems.

**IMPLEMENTATION:**

**Configure Telnet in RHEL 6**

Three RPM are required to configure telnet server in linux.

- xinetd
- telnet-server
- telnet-client

**Step 1: Installation of Packages**

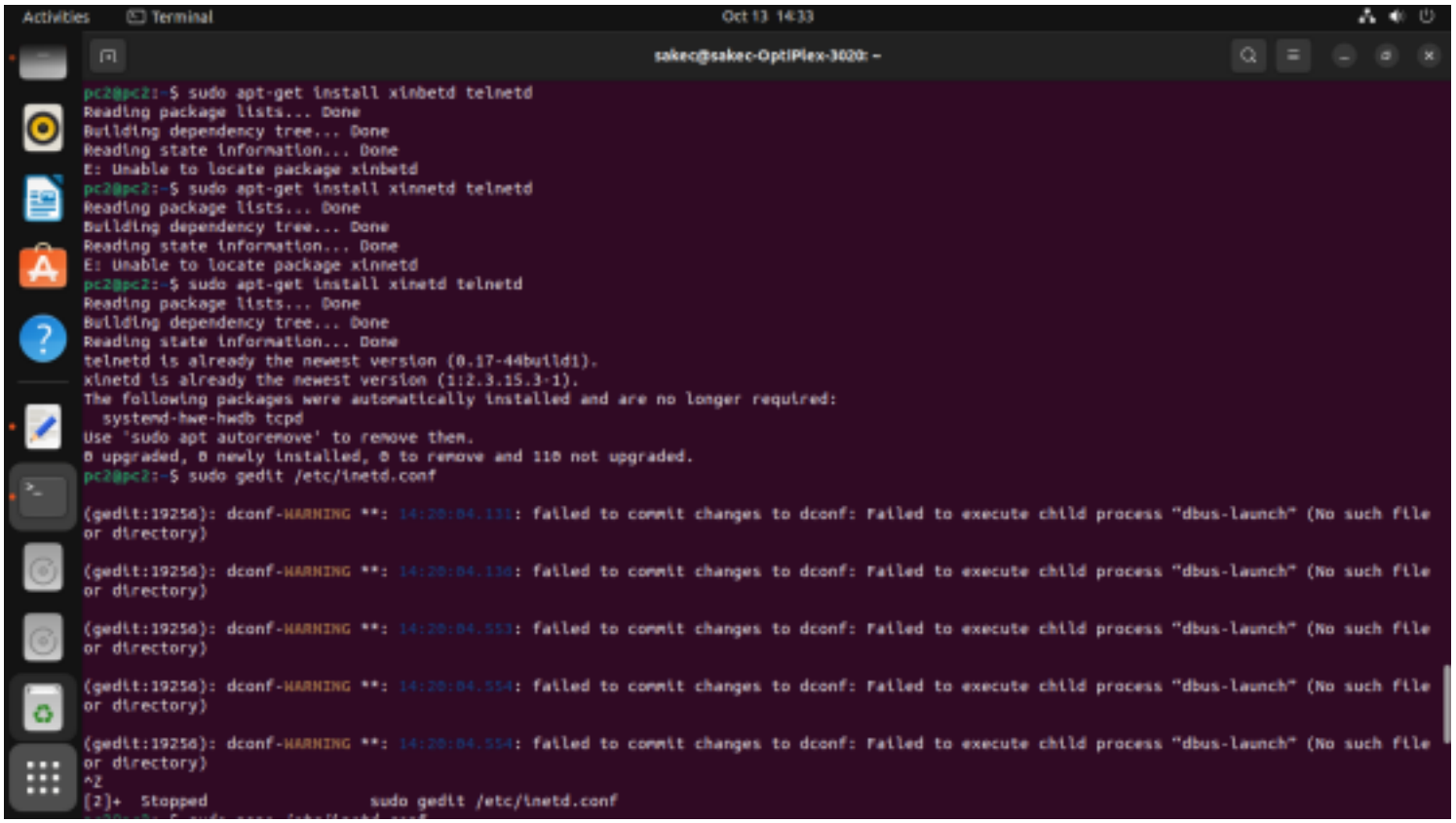
1. Login using root account. Necessary rpm for telnet server is **xinetd, telnet-server** and **telnet** .

# rpm –ivh xinetd-2.3.14-31.e16.X86_64

# rpm –ivh telnet-server-

# rpm –ivh telnet

2.To check whether the package is installed on the system.

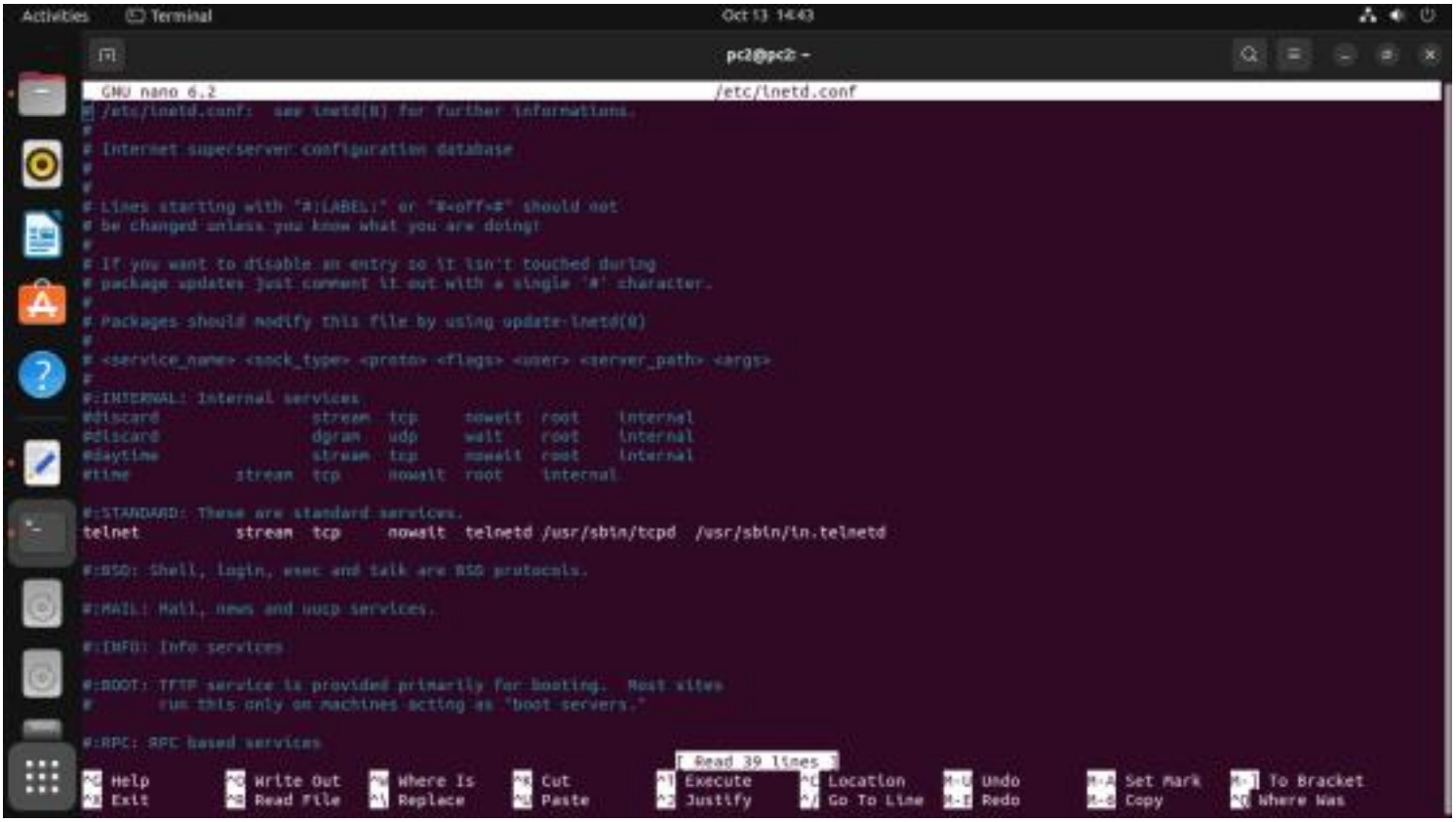


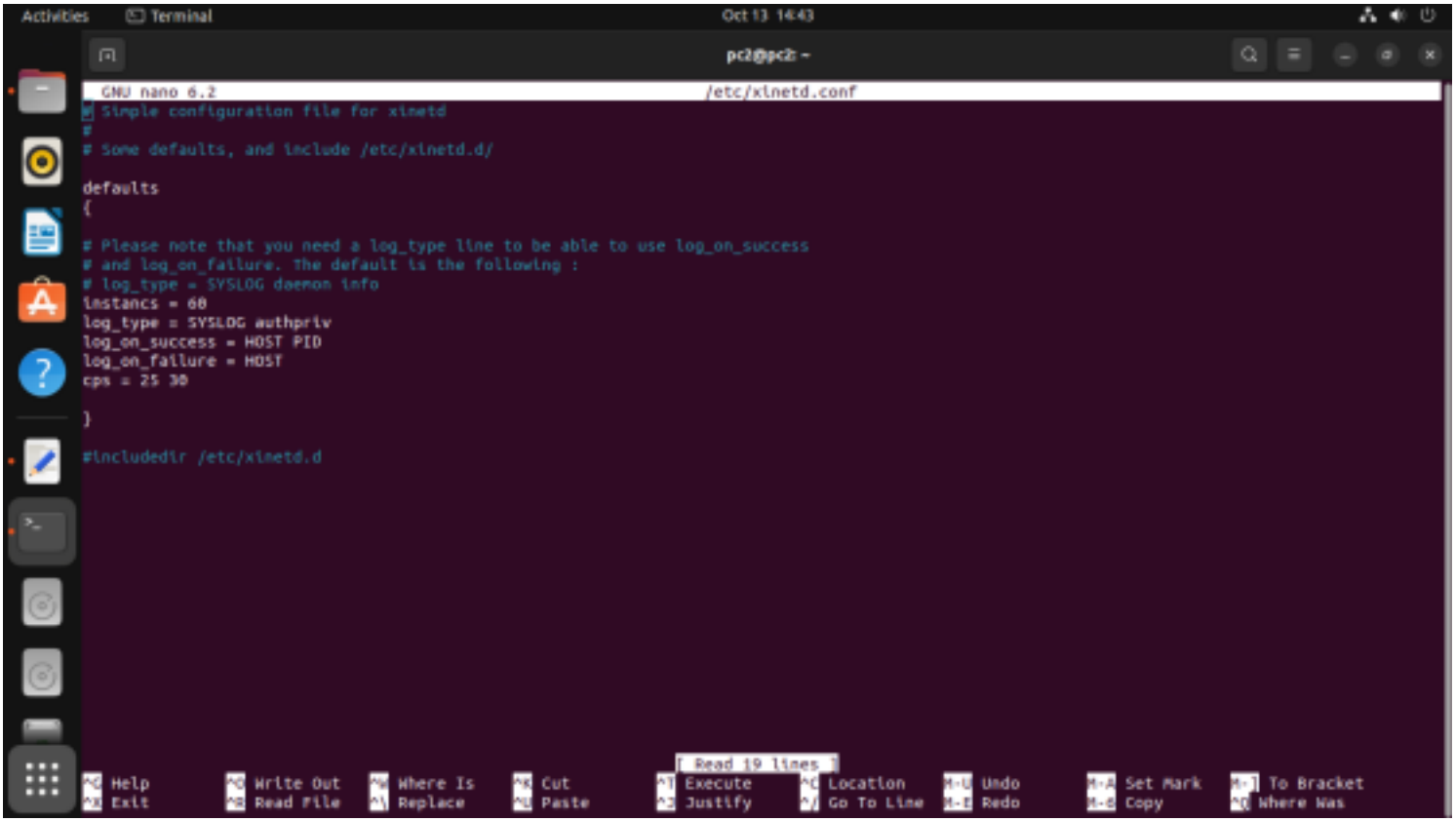

The version numbers of the package should not matter, Red Hat Network (RHN) will always provide you with the latest version of the package.

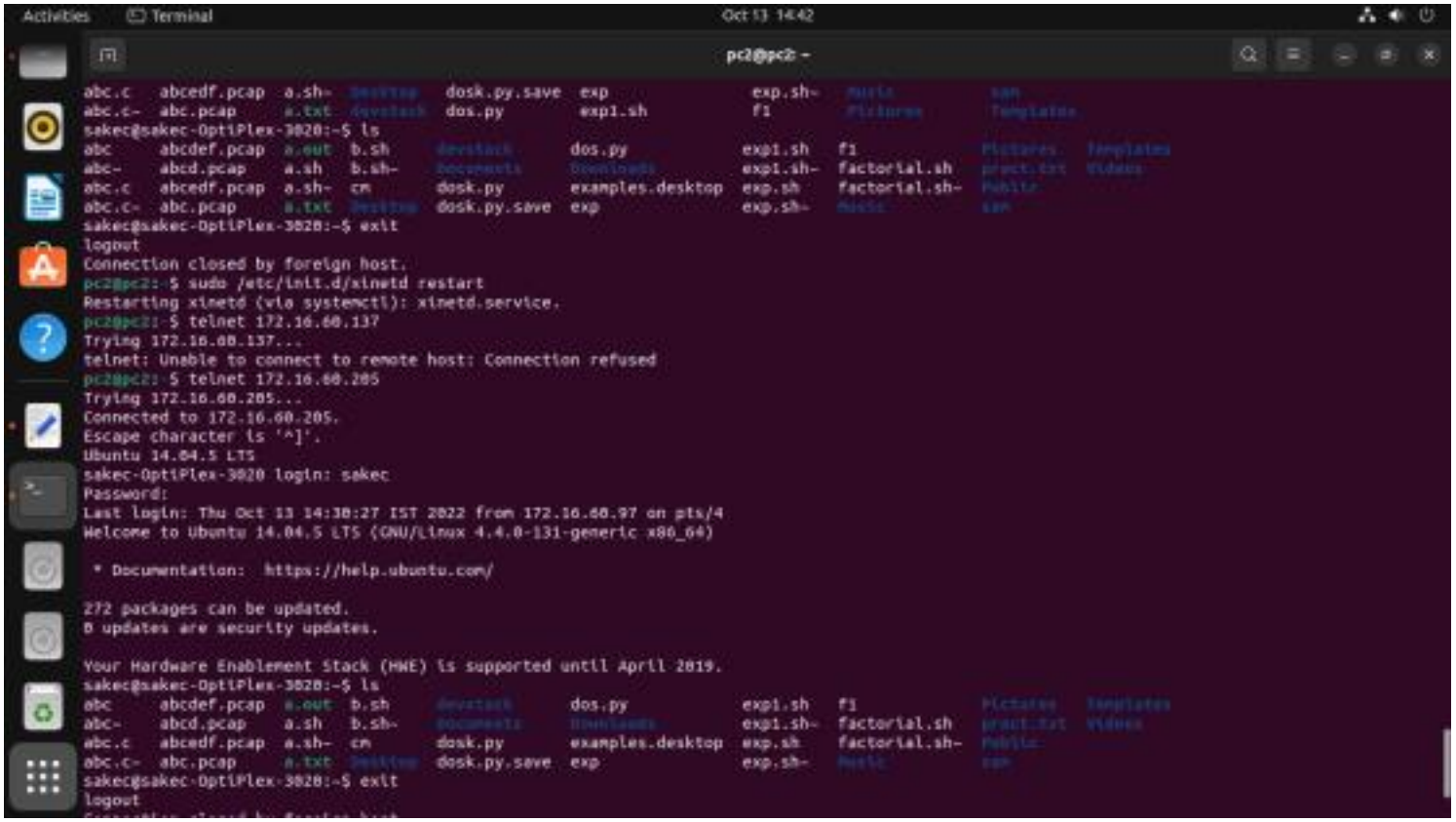
**Step 2: Check Configuration files**

Once you have the packages installed, check the **/etc/xinetd.d/telnet** file

ensure that **disable** = **yes** is changed to read **disable** = **no**.


Activities
Terminal
Oct 13 14:43
pc2@pc2: ~
GNU nano 6.2 /etc/inetd.conf
# /etc/inetd.conf: see inetd(8) for further informations.
#
# Internet superserver configuration database
#
#
# Lines starting with "#:LABEL:" or "#<off>#" should not
# be changed unless you know what you are doing!
#
# If you want to disable an entry so it isn't touched during
# package updates just comment it out with a single '#' character.
#
# Packages should modify this file by using update-inetd(8)
#
# <service_name> <sock_type> <proto> <flags> <user> <server_path> <args>
#
#:INTERNAL: Internal services
#discard stream tcp nowait root internal
#discard dgram udp wait root internal
#daytime stream tcp nowait root internal
#time stream tcp nowait root internal
#:STANDARD: These are standard services.
telnet stream tcp nowait telnetd /usr/sbin/tcpd /usr/sbin/in.telnetd
#:BSD: Shell, login, exec and talk are BSD protocols.
#:MAIL: Mail, news and uucp services.
#:INFO: Info services
#:BOOT: TFTP service is provided primarily for booting. Most sites
# run this only on machines acting as "boot servers."
#:RPC: RPC based services
[ Read 39 lines ]
^G Help ^O Write Out ^W Where Is ^K Cut ^T Execute ^C Location M-U Undo M-A Set Mark M-] To Bracket
^X Exit ^R Read File ^\ Replace ^U Paste ^J Justify ^/ Go To Line M-E Redo M-6 Copy ^Q Where Was


Activities
Terminal
Oct 13 14:43
pc2@pc2: ~
GNU nano 6.2 /etc/xinetd.conf
# Simple configuration file for xinetd
#
# Some defaults, and include /etc/xinetd.d/
defaults
{
# Please note that you need a log_type line to be able to use log_on_success
# and log_on_failure. The default is the following :
# log_type = SYSLOG daemon info
instances = 60
log_type = SYSLOG authpriv
log_on_success = HOST PID
log_on_failure = HOST
cps = 25 30
}
#includedir /etc/xinetd.d
[ Read 19 lines ]
^G Help ^O Write Out ^W Where Is ^K Cut ^T Execute ^C Location M-U Undo M-A Set Mark M-] To Bracket
^X Exit ^R Read File ^\ Replace ^U Paste ^J Justify ^/ Go To Line M-E Redo M-6 Copy ^Q Where Was




```
# default: on
# description: The telnet server serves telnet
#       unencrypted username/password pairs for
service telnet
{
        disable = no
        flags           = REUSE
        socket_type     = stream
        wait            = no
        user            = root
        server          = /usr/sbin/in.telnetd
        log_on_failure  += USERID
}
```

**Step 3: Restart the xinetd service**

```
[root@linuxclient ~]# service xinetd restart
Stopping xinetd:                                           [  OK  ]
Starting xinetd:                                           [  OK  ]
[root@linuxclient ~]# _
```

sable = no

**Step 4: Check connectivity with server**

```
[root@linuxclient ~]# ping 192.168.1.1
PING 192.168.1.1 (192.168.1.1) 56(84) bytes of data.
64 bytes from 192.168.1.1: icmp_seq=1 ttl=64 time=8.86 ms
^C
--- 192.168.1.1 ping statistics ---
1 packets transmitted, 1 received, 0% packet loss, time 761ms
rtt min/avg/max/mdev = 8.868/8.868/8.868/0.000 ms
[root@linuxclient ~]# _
```

We are getting reply of ping from server so we have connectivity with server .connect with telnet server. root user is not allowed to login from telnet. We need to create a normal user account.

## Configure telnet client in RHEL

### Step 1: Installation of Packages

1. Login using root account. Necessary rpm for telnet server is x

   # rpm –ivh xinetd-2.3.14-31.e16.X86_64

   # rpm –ivh telnet-

2. To check whether the package is installed on the system.

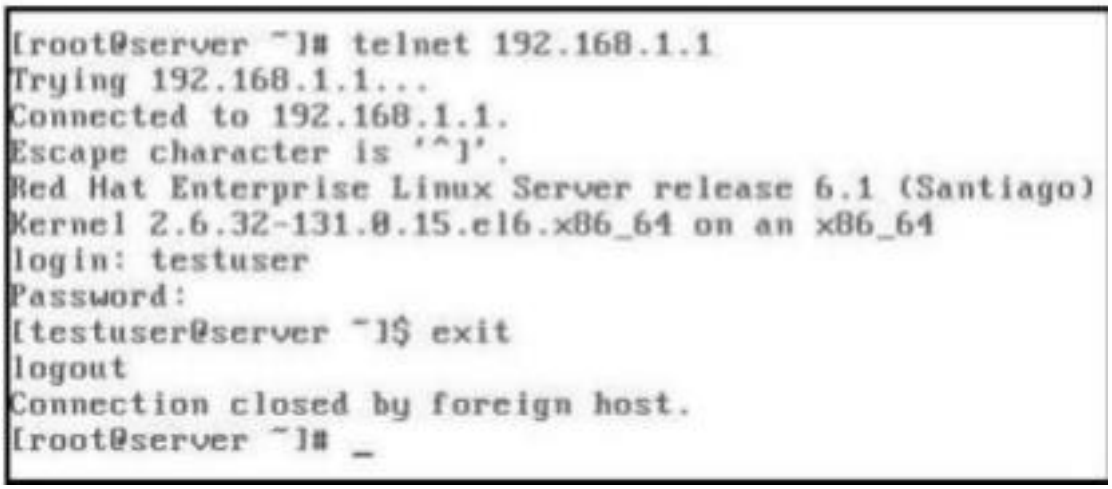
```
[root@linuxclient ~]# rpm -qa telnet
telnet-0.17-46.el6.x86_64
[root@linuxclient ~]# rpm -qa xinetd
xinetd-2.3.14-31.el6.x86_64
[root@linuxclient ~]# _
```

**Conclusion –**

**Telnet** is an application protocol used on the Internet or local area networks to provide a bidirectional interactive text-oriented communication facility using a virtual terminal connection. However, telnet by default does not encrypt any data sent over the connection (including passwords), and so it is


We have successfully connected with Telnet server. To terminate telnet session logout from test user. We have successfully configured Telnet client on RHEL 6.

**To terminate telnet session logout from logged in user.**




oftenfeasible to eavesdrop on the communications and use the password later for malicious purposes.

Questions :

1. What is Telnet?
2. Explain Telnet Client.
3. Explain Telnet Server.
4. What are Security issue with Telnet?
5. How do you test if a TCP/IP port is open in Linux?