Experiment 8: Linux Networking Commands and SSH Configuration

1. Aim:

a. Perform basic networking commands in Linux OS.
b. Configure SSH Client-Server Model in Linux OS.

2. Requirements: LINUX OS

3. Related Theory:

Linux Networking Commands

Linux networking commands are used extensively to inspect, analyze, maintain, and troubleshoot the network/s connected to the system.

SSH Server Client Configuration

The acronym SSH stands for "Secure Shell." It utilizes a client-server paradigm, in which clients and servers communicate via a secure channel. The server runs an SSH server or daemon and the SSH client is installed by default on most of the Linux system.

The protocol is used in corporate networks for:

- providing secure access for users and automated processes
- interactive and automated file transfers
- issuing remote commands
- managing network infrastructure and other mission-critical system components.

SSH is widely used in data centers to provide secure management, remote access to resources, software patches, and updates. The protocol also enables protected router management, server hardware maintenance, and virtualization platform administration.

Putty

Putty is a free and open source ssh & telnet client. Putty is available for Windows, Linux, Unix and macOS. Using putty, we can access the remote servers and switches over ssh protocol. It can also be used to take serial console of remote systems.

4. Laboratory Exercise:

a. Configure the SSH client server model in Linux OS.

5. Post-Experiment Exercise:

A. Conclusion:

#Summarize your experience about the skills acquired from this experiment.

B. Tasks:

For each question, Students need to submit the question and screenshot of the response (answer and output).

1. Perform the various networking commands and interpret the output.
2. Attach the screenshots of the steps used for installation, configuration and access of the SSH client-server.