Computer Networking: Security
(CSE 3752)

Experiment 2

Aim:

Implementation of AAA server as user authentication and authorization technique for remote access to the network device in computer network using cisco packet tracer.

Objectives:

1. An overview on AAA (Authentication, Authorization and Accounting) used in secured system.
2. Configuration and verification of remote user authentication on a Cisco router using AAA server based username-password authentication.
3. Configuration and verification of remote user authentication on a Cisco router using AAA server based username-password authentication with SSH.

Exercises:

1. An AAA configuration given as following. Which login credentials are required when connecting to the console port in this configuration?

   ```
   aaa authentication login NO_AUTH none

   line console 0
   login authentication NO_AUTH
   ```

2. State the advantages and disadvantages of AAA server based user authentication process.

3. Compare and contrast **RADIUS** (Remote Authentication Dial In User Service) and **TACACS+** (Terminal Access Controller Access-Control System) protocol.

4. State the significance of the following command in AAA server configuration:

   "AAA authentication login default group TACACS+ local"

5. How does SSH works here to protect the message?