

ComputerNetworking:Security

(CSE3752)

Experiment2

Aim:

Implementation of an AAA server as a user authentication and authorization technique for remote access to a network device in a computer network using Cisco Packet Tracer.

Objectives:

1. An overview of AAA (Authentication, Authorization and Accounting) used in a secure 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 follows. 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. What are the key functions of AAA servers? How do they enhance security within a network?
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 local"
5. How does SSH work here to protect the message?