## **Cisco AAA Lab Assignment (ver 1.0)**



Using Cisco Packet Tracer, create the network shown above containing a PC, router, and server. Configure IP address, subnet mask, and default gateway for these devices. Bring up the router interfaces. Verify that you can ping from PC0 to Server0.

1. (2 pts) Submit a screenshot of successful traceroute (tracert) from PC0 to Server0.

2. (2 pts) Submit a screenshot of your network topology with port labels and IP addresses as shown above.

3. (2pts) On the AAA server, turn on AAA service. Configure the server with the IP address of AAA client and AAA protocol to use. Include the key to encrypt and decrypt the AAA authentication traffic. Create a user account and password on the server. Submit a screenshot of these AAA configurations made on the server.

4. (2pts)

Configure the router using Cisco aaa commands to use AAA authentication of user login by using RADIUS or TACACS protocol.

Use Cisco radius-server or tacacs-server command to configure router to forward authentication requests to AAA server (Server0). Include a key to encrypt the traffic.

From PCO, verify that you can telnet to the router using the user account and password that was created on the server. You may need to configure router's vty lines and their transport protocols to allow remote login.

Submit the entire Cisco router configuration (show running-config).

5. (2 pts)

a. Submit screenshot of a decoded TACACS or RADIUS packet captures as evidence that AAA authentication works whenever you telnet from PC0 to the router.

b. Circle the IP protocol number field in the TACACS or RADIUS packet. What does this value signify?

c. What transport layer port number is used by the TACACS or RADIUS protocol? Circle this value in the transport layer header.