

Packet Tracer Configure RADIUS

Time required: 60 minutes

Lab Description

In this project, you'll configure RADIUS on a new Packet Tracer network. Complete the following steps:

Activities

1. Open Packet Tracer. Save your project as **Radius**.
2. From the **Network Devices** → **Wireless Devices** menu, insert a **WRT300N** wireless router.
3. On the wireless router's **Config** tab, Click LAN → set the IP address to **192.168.5.1/24**.
4. From the **End Devices** menu, insert a **Laptop**.
5. On the laptop's Physical tab, replace the Ethernet network module with a wireless module:
 - a. Click the laptop's power button to turn off the laptop.
 - b. Drag the PT-LAPTOP-NM-1CFE card from the laptop to the MODULES pane. Zoom in if necessary. The card is labeled "FAST ETH0."
 - c. Drag the **WPC300N** module from the MODULES pane to the laptop.
 - d. Turn the laptop back on.
 - e. A wireless connection is automatically created between the wireless router and the laptop. If not, troubleshoot the problem.

Wireless Router

Let's set up some security parameters on the wireless router:

1. On the wireless router's Config tab on the Wireless page, select **WPA2 Enterprise** authentication.
2. Set the RADIUS server's IP address to **192.168.5.2**.

3. Set the shared secret to **networkplus**
4. Make sure the encryption type is **AES**.

RADIUS Server

Let's need to create a RADIUS server for authentication.

1. From the **End Devices** menu, insert a **generic server**.
2. On the server's Config tab on the FastEthernet0 page, set its IP address to **192.168.5.2/24**.
3. What is the subnet mask that /24 represents?

Click or tap here to enter text.

4. On the server's Services tab, on the AAA page, turn on the AAA service.
5. In the Network Configuration section, add a new client with the following information:

- a. Client Name: **WRouter0**
- b. Client IP: **192.168.5.1**
- c. Secret: **networkplus**
- d. ServerType: **Radius**
- e. Click **Add**.

6. In the **User Setup** section, add a new user with the following information:

- a. Username: **User1**
- b. Password: **cengage**
- c. Click **Add**.

7. Insert a screenshot of the server settings.

Click or tap here to enter text.

8. Using a Copper Straight-Through cable, connect the server's FastEthernet0 port to the wireless router's Ethernet 1 port.
9. Has the wireless connection been reestablished?

Click or tap here to enter text.

10. Why do you think this is?

Click or tap here to enter text.

Laptop

1. On the laptop's **Config** tab, on the **Wireless0** page, change the following settings:
 - a. Authentication: **WPA2**
 - b. User ID: **User1**
 - c. Password: **cengage**
 - d. Close the laptop's configuration window. The wireless connection should reestablish within a minute or two.
 - e. Notice that you didn't configure the laptop's user information on the wireless router.
2. How did the router know to accept the laptop as a wireless client based on your username and password?

Click or tap here to enter text.

3. Insert a screenshot showing the wireless connection between the laptop and the router.

Click or tap here to enter text.

4. Save your Packet Tracer file.

Assignment Submission

Attach this completed document and the Packet Tracer file to the assignment in Blackboard.