**Net 1061 Switching, Routing, and Wireless Essentials**

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**Lab: #**

**Follow the instructions down below for the lab itself. For this lab, all answers need to be in blue font. For the questions right below, answer in complete sentences. If this is a self-grading packet tracer. Ensure you paste the screen shot of your score page at the bottom of the document. You will upload both this document and the pkt file regardless if it is self-grading or not. Let the instructor know if you have any questions.**

***Lab Analysis Report***

1. Using complete sentences summarize work you completed during the lab.

I troubleshooted the networks

2. Using complete sentences describe what you learned from the lab. Hint; look at the lab objectives listed at the top of the lab section.

Learned what to look for when troubleshooting

***Problems Encountered***

1. Using complete sentences describe any problem(s) experienced during lab.

No problems

2. Using complete sentences describe how you solved your problem(s).

No problems

3. Using complete sentences explain if you needed any assistance with the lab; then list what you learned from that assistance. No problems

Packet Tracer - Troubleshoot WLAN Issues

# Addressing Table

| Device | Interface | IP Address |
| --- | --- | --- |
| Home Wireless Router | Internet | DHCP |
| Home Wireless Router | LAN | 192.168.0.1 |
| R1 | G0/0/0.10 | 192.168.10.1/24 |
| R1 | G0/0/0.20 | 192.168.20.1/24 |
| R1 | G0/0/0.200 | 192.168.200.1/24 |
| R1 | G0/0/1 | 172.31.1.1/24 |
| SW1 | VLAN 200 | 192.168.200.100/24 |
| LAP-1 | G0 | DHCP |
| WLC-1 | Management | 192.168.200.254/24 |
| RADIUS Server | NIC | 172.31.1.254/24 |
| Admin PC | NIC | 192.168.200.200/24 |
| Web Server | NIC | 203.0.113.78/24 |
| DNS Server | NIC | 10.100.100.254 |
| Home Admin | NIC | DHCP |
| Laptop | NIC | DHCP |
| Laptop1 | Wireless0 | DHCP |
| Laptop2 | Wireless0 | DHCP |
| Tablet PC | Wireless0 | DHCP |
| Smartphone | Wireless0 | DHCP |

# WLAN Information

| WLAN | SSID | Authentication | Username | Password |
| --- | --- | --- | --- | --- |
| Home Network | HomeSSID | WPA2-Personal | N/A | Cisco123 |
| WLAN VLAN10 | SSID-10 | WPA-2 PSK/Personal | N/A | Cisco123 |
| WLAN VLAN 20 | SSID-20 | WPA-2 802.1x/Enterprise | user2 | user2Pass |

# Objectives

In this activity, you will troubleshoot various issues in home wireless and enterprise wireless networks.

* Troubleshoot wireless LAN connectivity issues in a home network.
* Troubleshoot wireless LAN connectivity issues in an enterprise network.

# Background / Scenario

Now that you have learned how to configure wireless in home and enterprise networks, you need to learn how to troubleshoot in both wireless environments. Your goal is to enable connectivity between hosts on the networks to the web server by both IP address and URL. Connectivity between the home and enterprise networks is not required.

To access the Home Wireless Router, the username and password is **admin**.

The WLC management interface username is **admin** and the password is **Cisco123**.

# Instructions

## Troubleshoot the Network

**Note**: You will only be troubleshooting the Home Wireless Router, WLC and wireless host devices in this activity.

### Test connectivity.

* + - 1. Test connectivity between the various wireless hosts and the web server by both IP and URL **www.netacad.pt**.
      2. Record the hosts that cannot access the web server in the table in Step 2.

### Investigate issues and record findings.

* + - 1. Investigate the connectivity issues with each host. Issues may be with the host configuration, or with other wireless network components.
      2. Complete the table.

| Device | Network  Home/Enterprise | Issue | Remedy |
| --- | --- | --- | --- |
| blank  WLC-1 | blank  E | blank  VLAN 20 not enabled | blank  Enable it |
| blank  WLC-1 | blank  EE | blank  VLAN 10 didn’t have PSK enabled | blank  Enable psk |
| blank  Tablet PC | blank  H | blank  IP was set to static, not DHCP | blank  Enable DHCP |
| blank  Laptop 2 | blank  E  E | blank  Wrong username configured | blank  Corrected username |
| blank  Home wireless router | blank  H | blank  Internet IP was not set to DHCP | blank  Changed addressing to DHCP |
| blank  Home wireless router | blank  H | blank  DNS server address incorrect | blank  Updated DNS server address according to table |
| Blank | blank | blank | blank |
| Blank | blank | blank | blank |

## Fix Issues

Make changes to the device configurations so hosts can achieve connectivity with the network. Test to ensure all hosts can reach the communication goal of connecting to the web server by both IP address and URL.

End of documentGraphical user interface, application, Word

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