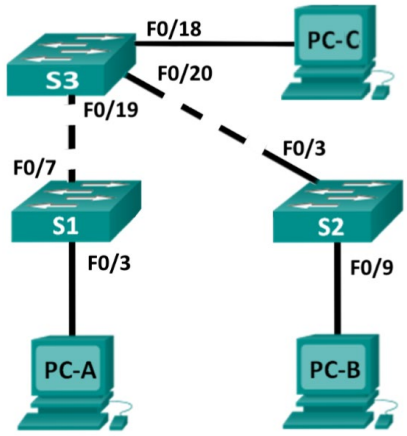
Lab 4 Activity 4.2 – Troubleshooting

Not Assessed

Topology



Addressing Table

Device	Interface	IP Address	Subnet Mask
PC-A	NIC	192.168.1.33	255.255.255.0
PC-B	NIC	192.168.1.65	255.255.255.0
PC-C	NIC	192.168.1.97	255.255.255.0
S1	VLAN 1	192.168.1.1	255.255.255.0
S2	VLAN 1	192.168.1.2	255.255.255.0
S3	VLAN 1	192.168.1.3	255.255.255.0

Objectives

Part 1: Troubleshoot the network

Background / Scenario

You will be given a pre-configured network. The network configuration will contain **7** errors that must be corrected. The submitted network will be scored based on the corrected configuration.

Required Resources

- Packet Tracer 8.2.2

Part 1: Troubleshoot the network

Step 1: Review and troubleshoot the network

Note: In order to better simulate a real environment, in this exercise you will not be able to directly access the CLI from the switch and you must use the console cable from the PCs to connect to the switches. Do not remove or move the console cables as these form part of the network requirement.

The network has been incorrectly configured and there are **7** errors in the configuration. Your task is to find and correct the errors.

The basic configuration in terms of names and IP addresses for the network is given in the topology and addressing table above.

Specific switch configuration details are shown below:

1) Correct device names as per the topology
2) DNS lookup turned off
3) IP address as listed in Addressing Table
4) Clear text passwords (ie. cisco) are encrypted. The command for this is:

   service password-encryption

5) **cisco** as the console and vty passwords with login enabled (note that these will appear encrypted)
6) **class** as the privileged EXEC password
7) Banner that warns anyone accessing the device that unauthorized access is prohibited. With the following text:

   Unauthorised access is strictly prohibited.

Note: Checking connectivity between devices

- In the 'Check results' window where you can check your results, the assessment items tab has been turned off for this activity to better reflect a real troubleshooting environment. That means that you cannot view a list of items that are incorrectly configured and have to verify each step manually.
- The activity will only say it has been completed successfully when all the incorrectly configured items have been configured correctly and any connectivity issues have been resolved.
- Incorrectly configured items that do not affect connectivity can be any of the items in Step 1, as well as the IP address and subnet mask configurations for devices.

Note: Errors

- There are 4 incorrectly configured items that do not directly affect connectivity that need to be correctly configured. There are 3 incorrectly configured items that directly affect connectivity that need to be correctly configured.
- When you have corrected all 7 configuration errors, you will see the message 'Congratulations on completing this activity!'

Note: Scoring:

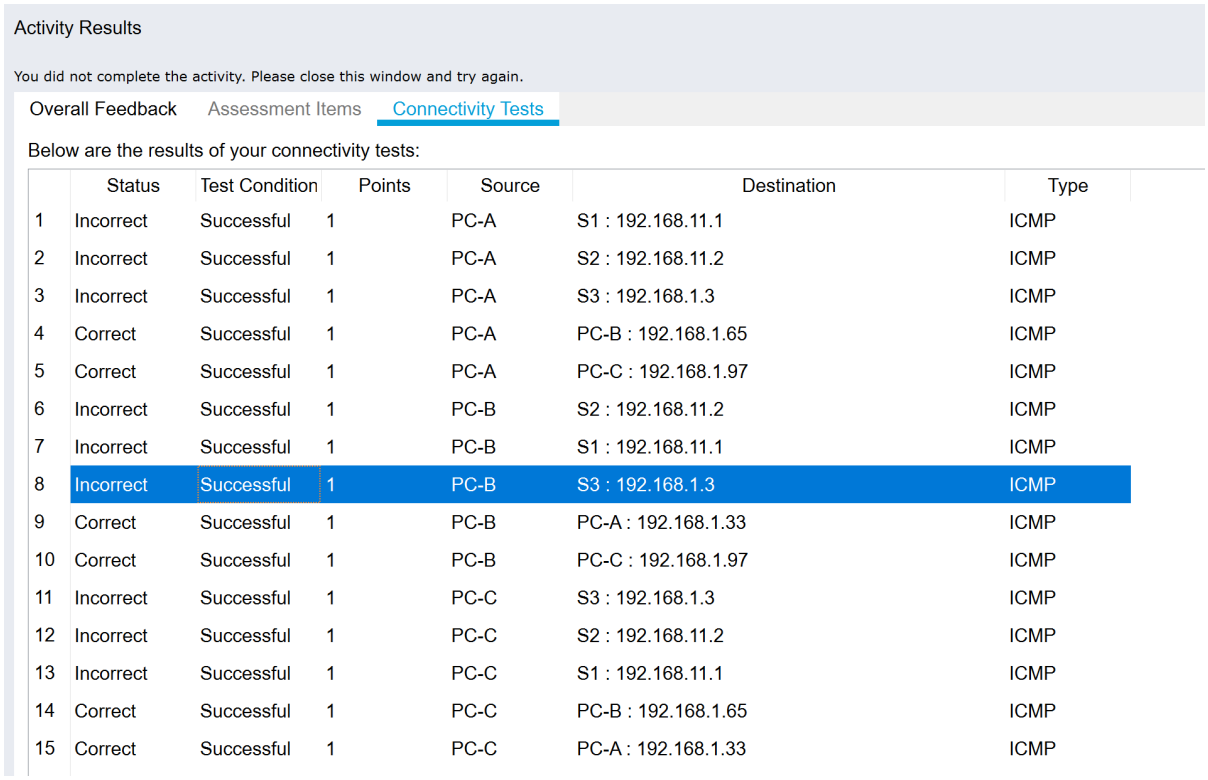
Because of the way Packet Tracer works, **when you start, your score is 147 out of 169, and when you have corrected all 7 problems, your final score will be 154 out of 169. At that point when you check your results you will get the 'Congratulations on completing this activity!' message and the score will update to 169/169.**

Troubleshooting:

You can use the following commands to view and verify the current configuration:

```
show running-config
show ip interface brief
```

In addition, there is a section for the Connectivity (Ping) Tests. To see detailed information about the ping tests, click on the “Connectivity Tests” tab:



Activity Results

You did not complete the activity. Please close this window and try again.

Overall Feedback | Assessment Items | Connectivity Tests

Below are the results of your connectivity tests:

	Status	Test Condition	Points	Source	Destination	Type
1	Incorrect	Successful	1	PC-A	S1 : 192.168.11.1	ICMP
2	Incorrect	Successful	1	PC-A	S2 : 192.168.11.2	ICMP
3	Incorrect	Successful	1	PC-A	S3 : 192.168.1.3	ICMP
4	Correct	Successful	1	PC-A	PC-B : 192.168.1.65	ICMP
5	Correct	Successful	1	PC-A	PC-C : 192.168.1.97	ICMP
6	Incorrect	Successful	1	PC-B	S2 : 192.168.11.2	ICMP
7	Incorrect	Successful	1	PC-B	S1 : 192.168.11.1	ICMP
8	Incorrect	Successful	1	PC-B	S3 : 192.168.1.3	ICMP
9	Correct	Successful	1	PC-B	PC-A : 192.168.1.33	ICMP
10	Correct	Successful	1	PC-B	PC-C : 192.168.1.97	ICMP
11	Incorrect	Successful	1	PC-C	S3 : 192.168.1.3	ICMP
12	Incorrect	Successful	1	PC-C	S2 : 192.168.11.2	ICMP
13	Incorrect	Successful	1	PC-C	S1 : 192.168.11.1	ICMP
14	Correct	Successful	1	PC-C	PC-B : 192.168.1.65	ICMP
15	Correct	Successful	1	PC-C	PC-A : 192.168.1.33	ICMP

In the above table for Connectivity tests, the status column indicates if the test is successful (correct) or unsuccessful (incorrect). The test condition indicates what is being tested (in this case a successful ping between the source and destination devices). The Type is ICMP for ping.

Item 8 has been highlighted. Note that the ping is incorrect which means that you will need to check the configuration and update it to correct the problem. Also note that the destination includes the IP address which can be helpful in identifying misconfigured values. Note that for item 8, the IP address appears to be correct, so there may be another issue affecting the connectivity.

In order to gain the marks for the connectivity tests you must update the configuration so that all the ping tests will work and are listed as ‘Correct’. You can test the ping yourself by using the command prompt from a PC and using the ping command as discussed in previous labs.

Note: Fixing the configuration errors should automatically result in the connectivity tests becoming successful, but sometimes, you may have to use ping to trigger this.