Troubleshooting
Vlan Scenario 1

CIT 167

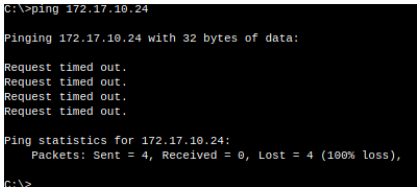
Chaz Davis

BCTC
Spring 2020

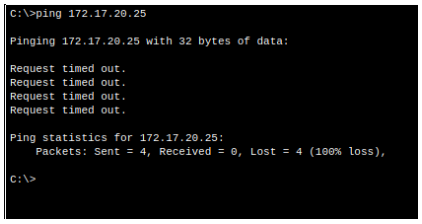
March 8, 2020

Part 1: Test Connectivity between PCs on the Same VLAN

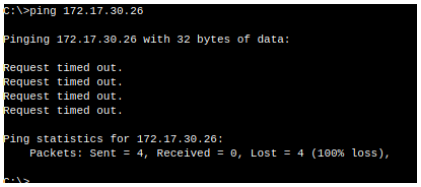
i) Can PC1 ping PC4
Attempt to ping PC4 from PC1 was unsuccessful. See Fig. 1 a.
ii) Can pc2 ping pc5
Attempt to ping PC5 from PC2 was unsuccessful. See Fig. 1 b.
iii) Can pc3 ping pc6
Attempt to ping PC6 from PC3 was unsuccessful. See Fig. 1 c.



(a) PC1 pinging PC4



(b) PC2 pinging PC5



(c) PC3 Pinging PC6

Figure 1: Testing Connections on the same networks

Part 2: Investigate Connectivity Problems by Gathering Data

i) Verify Configurations on the PCs
I checked configurations for IP address and subnetmasks on all pcs. PC5 had an incorrect IP address.
ii& 3) Verify Configs on the Switches
On switch2 vlan for subnet 30 had the 10 and 30 subnets attached to it, so I moved the Fa0/11 interface to 10 faculty/staff. Also on S2, G0/1 was not setup as a trunk.

PC5 appears to be connected on port Fa0/17 when it should be Fa0/18.

Switch3, vlan 20 and vlan 30 are switched on their connections.

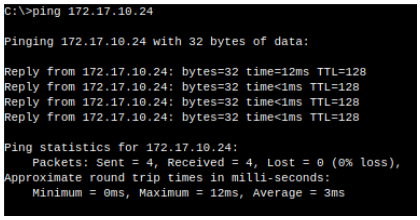
Part 3: Implement the Solution and Test Connectivity

On S2 I ran `int fa 0/11` and then `switchport access vlan 10`to correct the first issue. Then I ran, `int g0/1` and then `switchport mode trunk`.

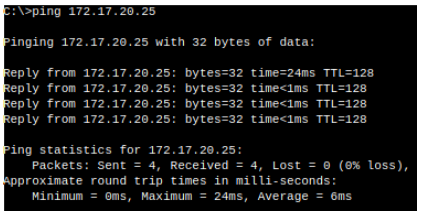
On S1, I ran `int g0/1` and then `switchport mode trunk`.

On S3, I ran `int f0/18` and then `switchport access vlan 20`. I then ran `int f0/6` and then `switchport access vlan 30`.

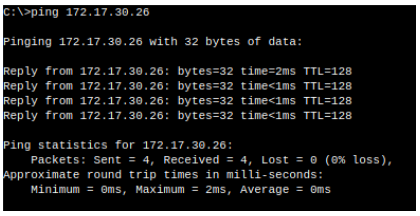
I'll now attempt to ping each of the connected networks. All pings were successful. See Fig. 2.



(a) PC1 pinging PC4



(b) PC2 pinging PC5



(c) PC3 pinging PC6

Figure 2: Network connections are now all successfull

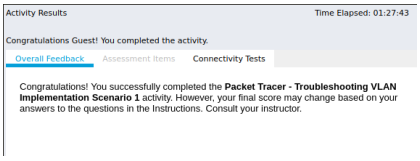


Figure 3: Successful Completion of the Activity