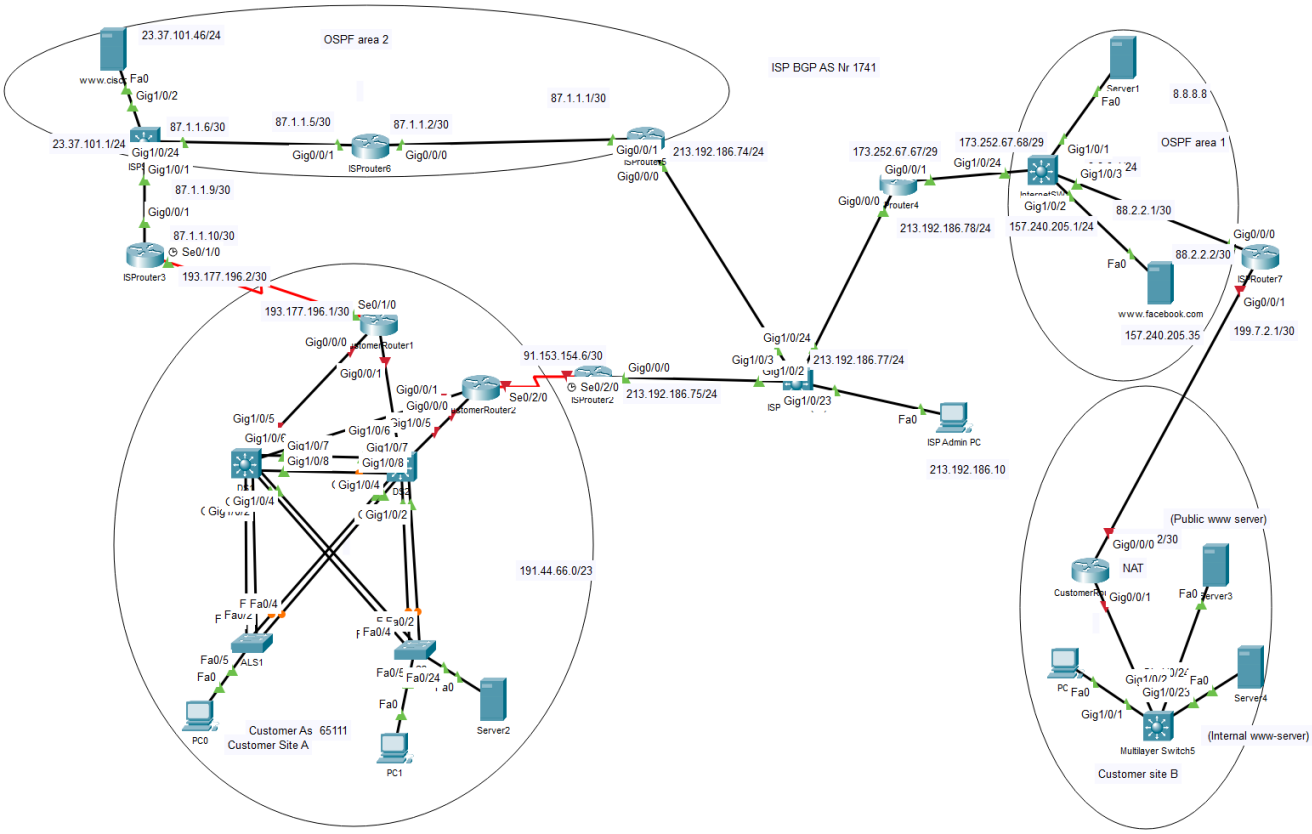
CCNP Enterprise Core Project in Cisco Packet Tracer



VLAN ID	VLAN name	Space for at least this number of hosts	IP Network address	Firs usable address in subnet (Used for Virtual IP address in HSRP	The device in that VLAN	Last usable IP address subnet (Used for a host in the previous column as a static IP address)
111	Users	200(254)	191.44.66.0/24	191.44.66.1/24	PC0	191.44.66.200(254)
111+1	Guests	100(126)	191.44.67.0/25	191.44.67.1/25	PC1	191.44.67.100(126)
111+2	Servers	40(62)	191.44.67.128/26	191.44.67.129/26	Server2	191.44.67.169(190)

Since there is a limit to using all BGP features such as ROUTE-MAP and iBGP, the only way to complete the traffic control is to use a static route to the 23.37.101.0 network on router ***CustomerRouter2***. After redistributing the static route in the OSPF process the route was more preferably due to its smaller administrative cost.
Also, since the Cisco Packet Tracer does not support the IP SLA technique, I was not able to control the port status of any device.
However, the route to the 23.37.101.0 network was also redistributed by BGP protocol on CustomerRouter2. So, to complete the task and check the result of the traffic route to the 23.37.101.0 network, I must switch off the CustomerRouter1 completely. Then the traffic starts flowing through the CustomerRouter2.

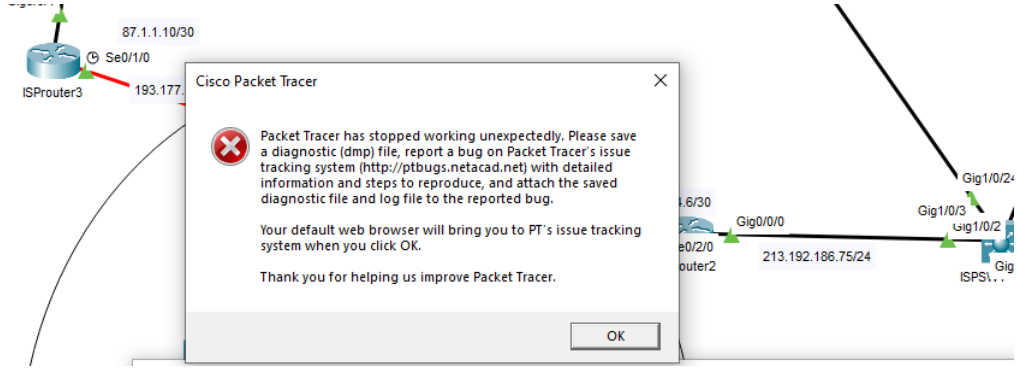
The tasks about DHCP snooping, summer – time and UDLD are not possible to complete because those commands and techniques are not supported by Cisco Packet Tracer.

Another founds is that the Layer 3 switches do not support radius server commands or support them partially. I had to use the Tacacs+ server instead.

The PCs need a bit longer time to be authorized by Radius and Tacacs+ server.

Sometimes the DHCP and static radio buttons must be pressed several times to get an IP address in case the DHSP server is used.

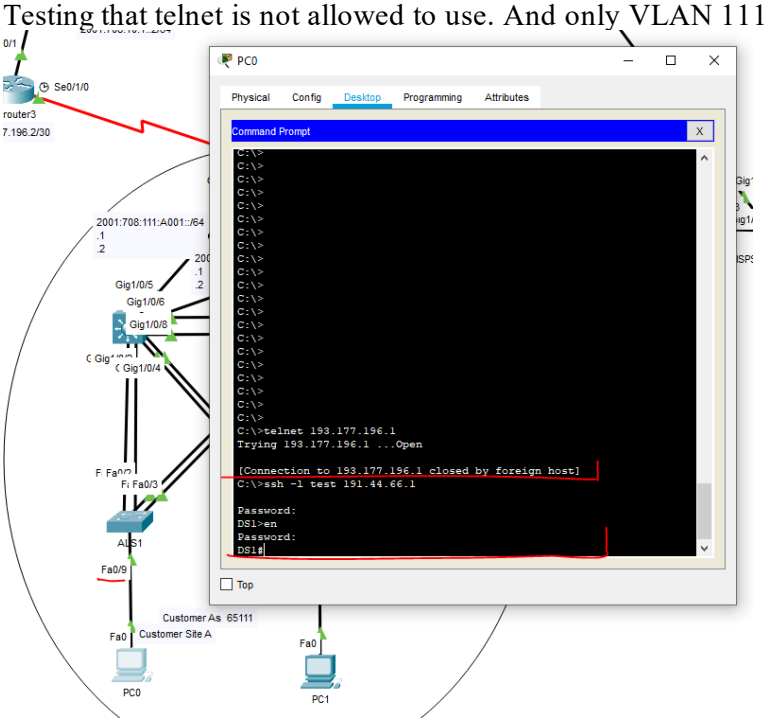
I should admit that Cisco Packet Tracer is not such a stable application. Many times, I had some strange errors, for example after writing some configuration correctly I was not able to get any result or correct result that has been given by Cisco Packet Tracer, and after a while, it shows some errors like in the picture below.



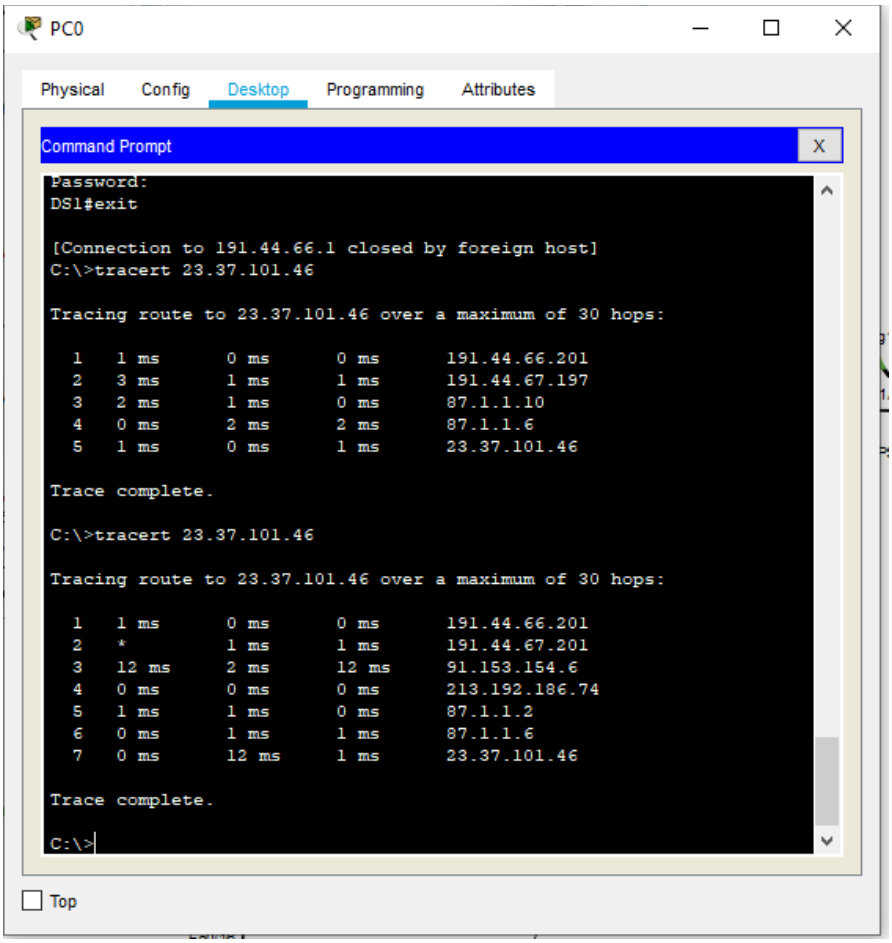
Another error was that the saved files are completely blank.
For testing purposes, the account "**test**" with password "test" was added.

Testing the tasks

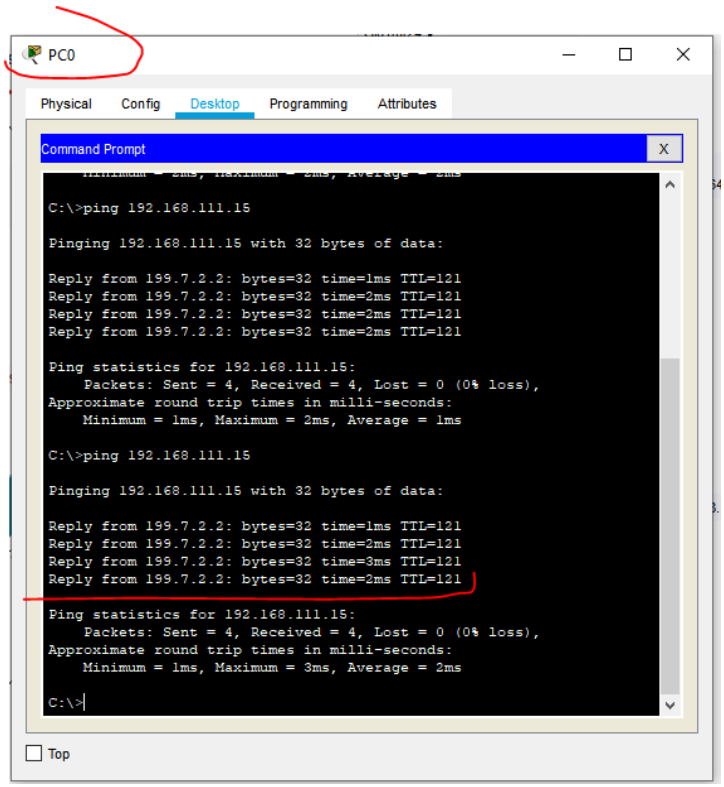
Testing that telnet is not allowed to use. And only VLAN 111 users can manage the devices.



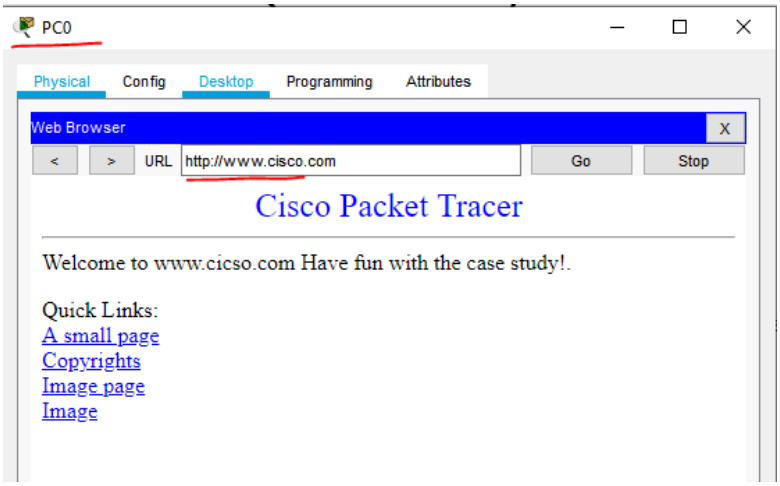
Checking traffic flow to the cisco.com server through CustomerRouter1. And the second traceroute shows the route when CustomerRouter1 has been switched off.



Testing site-to-site VPN connection by ping



Testing web access from site A to the outside network. After applying access lists.



Access to site A denied for external users