Computer Systems Security Laboratory Report 2

Objectives:

* To set a new topology on GNS
* To configure communication among end devices and a router
* To add Vlans to the existing topology

Lab Setup:  
Operating System

* Host Machine: Windows 10 Pro
* Virtualization Software: Oracle VM VirtualBox 7.0.14
* Network simulator :GNS3

Methodology

We have already added the ISO images for the network devices then used two VPcs and two routers: C3725 one act as Multi-Layer Switch and a single router either C7200 or C3725 can act as a regular. Then we configured ip and gateway for the devices in order to let them communicate and finally we defined Vlans on the Etherswitch router.

In Ubuntu (linux) - upon importing GNS3 VM Virtualization Format Archive we have encountered compatibility issues and fixed it by downloading linux compatible Virtualization Format Archive from the official GNS3 website.

Challenges Faced

Problem:The end devices were not pinging successfully even if the configuration was not wrong.

Solution: Some of the ports on the Etherswitch router were not functioning. We have discovered that after running `*sh interfaces status*`. So changing the ports have solved it.

Results

-Successful pinging among the end devices and the existence of defined vlans in the vlan database of the Etherswitch.

Report prepared by:

1. Ananiya H/meskel

2. Barnabas Solomon

3. Dagmawi Aschalew