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Internetworking

CMPT 307N 112

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Lab 3A

**Purpose:**

To become familiar with the use of the banner, password, and secret commands on a switch, & to learn about configuring the ports on a switch, modifying different attributes of a port (duplex, desc, etc.), making changes to specific ranges of ports, and the importance of checking interface status to ensure everything is correct, or debugging until correct.

**Q1**. The No command essentially undoes or does the opposite of whatever command follows it specifies. So for example, if you shutdown a port, you can do no shutdown on that interface in order to bring it back up.

**Q2**. You can configure multiple interfaces on a switch by using the Range command. Here is an example: Switch0#: interface range f0/1-5 After inputting this, whatever interface modifications you make will apply to all interfaces specified, so FastEthernet 0/1, 2, 3, 4, 5 in this example.

**Q3**. An Access line carries/sends untagged data (supporting only its VLAN), while a Trunk line carries tagged data (thus supporting multiple VLANs). Typically, lines connecting a switch to end device use Access mode, while lines connecting switches together use Trunk mode.

**Q4**. Half Duplex mode allows transmission between devices not-simultaneously, while Full Duplex allows transmission both ways simultaneously. Essentially, in Half Duplex, a receiver must wait until it fully receives the data before sending a response. This is not the case for Full. Modern Switches can transmit in Full Duplex, but Older Hubs require switches to use Half Duplex.

**Q5**. Enable password Cisco -> The passcode will be required at launch, but will be displayed in the startup config info.

Enable secret Cisco -> The passcode will be required at launch, but will not be displayed in the startup config info, or anywhere.

**New Commands:**

* “Banner motd \_\_\_\_\_” - Allows the programmer to create a personalized warning message to be displayed upon entering the initial CLI terminal.
* “Enable secret \_\_\_\_\_” - Used to create a passcode that will not appear anywhere on the CLI startup config info. More secure that the enable password \_\_\_\_\_ command.
* “Interface range \_\_\_\_” - Specifies which interfaces you want to edit.
* “Switchport mode \_\_\_” - Used to configure the interface to either Trunk or Access mode.

**Reflection:**

This lab, although short, was certainly impactful in learning the basics of interface modifying and also some additional commands to execute on a switch, such as the difference between password and secret. Utilizing and playing around with the range command on the switch’s interfaces, and seeing some of the options you can adjust (description, speed, duplex, etc.) helped to enhance my knowledge in exactly what the CLI is capable of. Especially doing show interfaces status to see all the differences we made provided a neat little Aha moment for me.

**Comments:**

A random piece of knowledge I learned from this is the importance of knowing the condition of the switch, specifically whether its powered on or off! I spent 10 minutes trying to find out why the second switch would not connect to either the PCs or the other Switch, until I finally realized I powered it down during the module-adding process. Something so insignificant as this could be a hurdle in progress if not assessed!