

## Lab - Switches & VLANs

Set a static IP Address on the subnet for your device - 155.1.37.1

Ping a device on the same switch - what happens?

### Setting up VLANs

FastEthernet ports 0/1 thru 0/16 VLAN 500

FastEthernet ports 0/17 thru 0/32 VLAN 501

FastEthernet ports 0/33 thru 0/48 VLAN 502

#### Sample Config:

```
vlan 500
```

```
exit
```

```
int range fa 0/1 - 16
```

```
switchport mode access
```

```
switchport access vlan 500
```

```
exit
```

```
end
```

Repeat for 501, 502

Ping a device on the same vlan

Ping a device on a different vlan on the same switch

### Setting up VLAN Trunks

Set up a trunk from one vlan on one switch to another

#### Sample Config:

```
int fa 0/1
```

```
switchport mode trunk
```

```
switchport trunk allowed vlan 500
```

```
end
```

Ping a device on a trunked vlan to another vlan on the trunk

## Lab Write-Up

- a) How does a LAN switch differ from Shared LAN Ethernet hub? 20%
- b) What does a VLAN provide? 20%
- c) How would VLANs be considered as security mechanism? 20%
- d) What are VLAN trunks? 20%
- e) What is the Spanning Tree Protocol (STP)? What does the Spanning Tree Protocol allow for that would be important to have in LANs? 20%

**Due 11/23/16 11:59pm**