

## Worksheet 8: Firewalls

Name:

### Objectives:

To design a firewall which limits traffic flowing to and from the Internet.

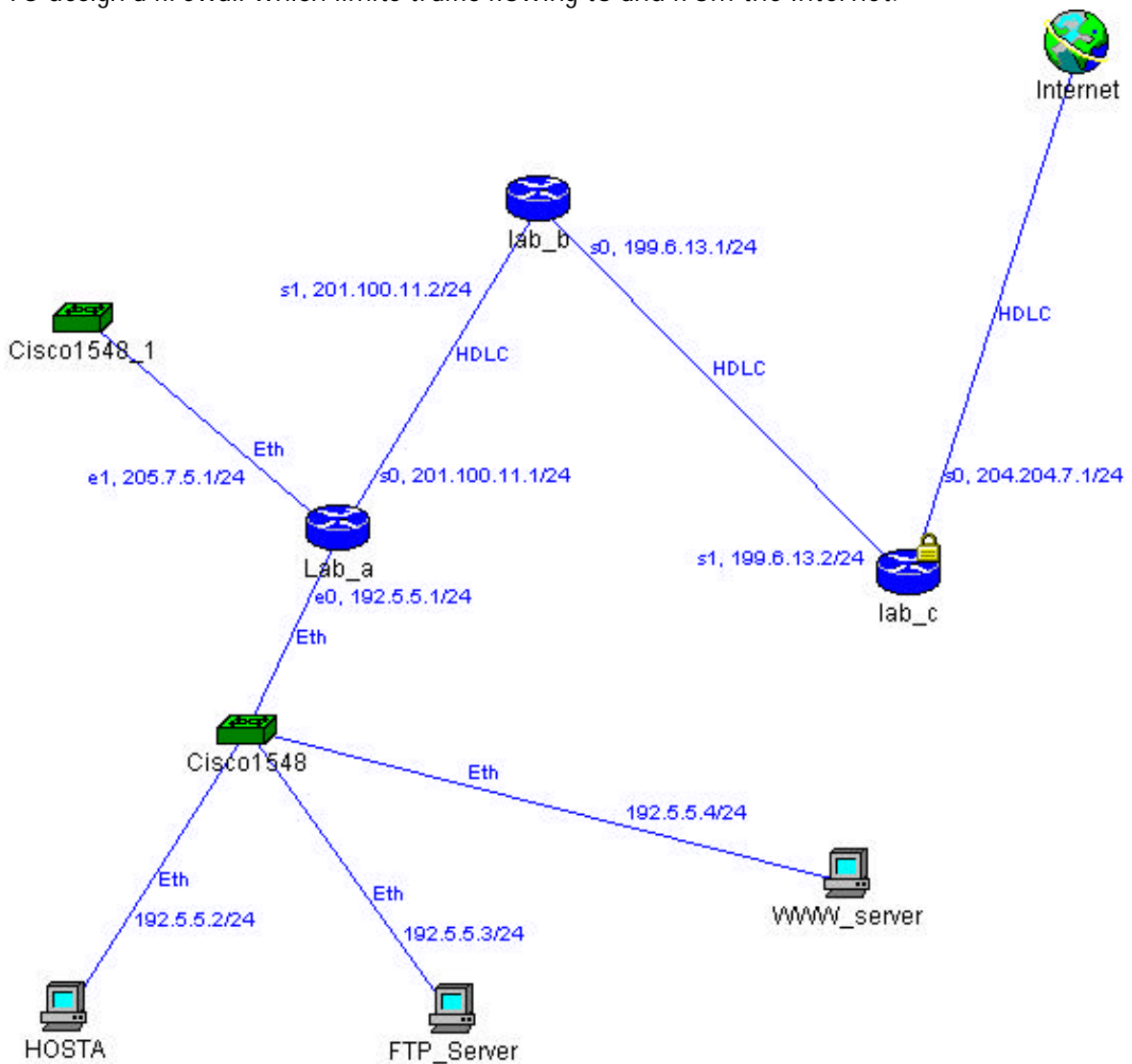


Figure W8.1:

| Task:                                                                                                                                                                                                                                    | Notes:        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Using Configmaker, draw the schematic of the network, and assign the correct IP addresses and subnet masks.                                                                                                                              | Completed [ ] |
| <p>Firewall LAB_C so that only <b>WWW</b> traffic is allowed to flow from the Internet into the network.</p> <p>Firewall LAB_C so that <b>FTP</b> and <b>TELNET</b> access cannot be used from the internet network to the Internet.</p> | Completed [ ] |
| Which port has the firewall been applied to?                                                                                                                                                                                             | Port:         |
| List the ACL which blocks all the Internet traffic, but allows WWW traffic into the network.                                                                                                                                             | Listing:      |
| List how this ACL is applied to the port.                                                                                                                                                                                                | Listing:      |
| List the ACL which blocks all the Internet traffic, but allows WWW traffic into the network.                                                                                                                                             | Listing:      |

|                                                                                                                                                                                                                                                      |          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| List how this ACL is applied to the port.                                                                                                                                                                                                            | Listing: |
| Investigate how the router can be setup to detect a Denial-of-Service (DOS) attack. How are the values set, and varied? Which commands are used to protect against this?<br><br>Which command can be used to implement an audit trail on the router? | Command  |
| Setup a DNS host on at 192.5.5.5, and setup LAB_A, LAB_B and LAB_C to use it as a domain name server. Which command is used on the routers?                                                                                                          | Command: |
| Setup a WWW service on LAB_A, LAB_C and LAB_C. Which command is used?                                                                                                                                                                                | Command: |
| Limit the number of simultaneous telnet sessions on LAB_A, LAB_B and LAB_C to two. Which command is used?                                                                                                                                            | Command: |
| Define the message of the day on LAB_A, LAB_B and LAB_C as:<br><i>Hello. Welcome to My Network.</i><br><br>Which command is used?                                                                                                                    | Command: |