

CSIS 3230 Computer Networking Principles

Group Lab Report 5 – Serving up the Web and FTP file transfer

Names:

1. Apache web server

- a) What is the full path name of the file containing the default home page?

- b) ☐ Can access web servers from all PCs on LAN

2. Add more content to your site

- ☐ Can access page with image using link on home page

3. Watching web traffic

- a) What application layer protocol is used by this packet (it will be the last line shown in the middle panel)?

- b) What transport layer protocol is used by this packet (the one between the application protocol and Internet protocol)?

- c) What are the source and destination ports of the packet with the web page request?

Source:

Destination:

- d) The first line shown in the payload of the page request packet is a command. Write it below:

- e) The first line in the payload of the response packet following the request has a status code. Write it below:

- f) What status code was in the response packet for the reply related to the non-existent web page?

- g) After closing the **Follow TCP Stream** window, how many packets are displayed *before* the first HTTP packet?

- h) In addition to HTTP, what other protocol is shown in the *Protocol* column for the packets in this stream?

4. Watching more web traffic with caching

- a) Packets: Bytes: (From Wireshark)

- b) For each GET: (From Firefox)

<u>File name</u>	<u>Connecting</u>	<u>Waiting</u>	<u>Receiving</u>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

- c) Packets: Bytes: (From Wireshark)

For each GET: (From Firefox)

<u>File name</u>	<u>Connecting</u>	<u>Waiting</u>	<u>Receiving</u>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

- d) Find the response packet for the image file. What is status code in this packet?

5. File transfer with ftp

- a) Observe the sequence of packets related to logging in to the ftp server and briefly describe any security concerns about using ftp.

- b) What port number is used by the *server* for the packets related to ftp *commands*?

- c) Find the packet containing the command to request a file download. Identify the Request command and Request argument in the payload of this packet.

Request command:

Request arg:

- d) What port number is used by the *server* for the packets related to *data transfer*?

- e) Briefly describe what is displayed when following the TCP stream for the packets that transfer the file data.

6. Secure ftp

- a) What is displayed when the ftp filter is applied.

- b) What port number is used by the *sftp server*?

What protocol is shown in the Protocol column?

- c) Describe the data transferred by the secure ftp connection compared to the previous non-secure ftp transfer.