**Packet Tracer - TCP and UDP Communications**

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**Questions and Answers (Sequential)**

**What is this called?**

multiplexing

**A variety of PDUs appears in the event list in the Simulation Panel. What is the meaning of the different colors?**

represents different types of PDUs

**Why did it take so long for the HTTP PDU to appear?**

because tcp should establish the connection that's why it took so long for the HTTP PDU to appear

**What is the section labeled?**

TCP section

**Are these communications considered to be reliable?**

Yes, TCP connections are reliable

**Record the SRC PORT, DEST PORT, SEQUENCE NUM, and ACK NUM values.**

SOURCE PORT:1026

DESTINATION PORT:80

SEQUENCE NUMBER:1

ACKNOWLEDGEMENT NUMBER:1

**Which TCP flags are set in this PDU?**

ACK and PSH

**How are the port and sequence numbers different than before?**

The SEQ number remains same and the ACK number has been updated to 103

**What information is now listed in the TCP section? How are the port and sequence numbers different from the previous two PDUs?**

The source and destination ports have been interchanged

**Are these communications considered to be reliable?**

Yes, since it uses TCP

**Record the SRC PORT, DEST PORT, SEQUENCE NUM, and ACK NUM values**

SOURCE PORT:1027

DESTINATION PORT:21

SEQUENCE NUMBER:0

ACKNOWLEDGEMENT NUMBER:0

**What is the value in the flag field?**

2nd, SYN bit

**How are the port and sequence numbers different than before?**

the ports have been interchanged and 2nd and 5th flag bit set which is SYN and ACK

**What is the message from the server?**

Message: Welcome to PT Ftp server

**What is the Layer 4 protocol?**

UDP

**Are these communications considered to be reliable?**

No, since it uses UDP these are not reliable

**Record the SRC PORT and DEST PORT values.**

SOURCE PORT:1026

DESTINATION PORT:53

**Why are there no sequence and acknowledgement numbers?**

Since it is a unreliable connection there is no need for sequence and acknowledgement number

**How are the port and sequence numbers different than before?**

source and destination ports have been interchanged

**What is the last section of the PDU called? What is the IP address for the name multiserver.pt.ptu?**

DNS Answer, ip addr: 192.168.1.254

**What transport layer protocol does email traffic use?**

TCP

**Are these communications considered to be reliable?**

Yes, because of TCP

**Record the SRC PORT, DEST PORT, SEQUENCE NUM, and ACK NUM values. What is the flag field**

**value?**

SOURCE PORT:1026

DESTINATION PORT:25

SEQUENCE NUMBER:0

ACKNOWLEDGEMENT NUMBER:0

the flag bit/value here is 5 - ACK

**How are the port and sequence numbers different than before?**

source and dest port interchanged and the seq number is 0 and ack number has been updated to 1.

**Click the Outbound PDU Details tab.**

**Question:**

**How are the port and sequence numbers different from the previous two results?**

source and dest port interchanged but here the seq number is 1 and ack number is also 1.

**How are the port and sequence numbers different from the previous two PDUs?**

same as the prev outbound PDU

**What email protocol is associated with TCP port 25? What protocol is associated with TCP port 110?**

SMTP and POP3