

For packet 1:

1. What kind of HTTP packet is packet no. 1?

Packet No. 1 is an HTTP request packet when a client is asking for a webpage.

PC1 sends this HTTP request to the web server while trying to access the webpage of 'www.bracu.ac.bd'.

2. Click onto the “Inbound PDU details” tab. Scroll down at the end, what do you see?

HTTP Data:Accept-Language: en-us

Accept: */*

Contains Http request URL along with related data like data size and preferred language

For packet 2:

3. Click onto the “Inbound PDU details” tab. Scroll down at the end, what do you see?

What kind of HTTP packet is this?

HTTP Data:Connection: close

Content-Length: 151

It is an HTTP response packet from the web server to the client containing the requested web page.

4. For packet 4::

What is the purpose of this DNS packet?

To get the ip address of the BRACU email server before sending the email to the address 'sakib@bracu.ac.bd' located there. Here, the source IP is 192.168.10.11 (PC1) and the destination IP is 192.168.10.2 (DNS Server).

5. For packet 5& 6::

Explain why an SMTP packet was sent to the email server and the server replied with an SMTP packet?

In Packet 5, the client PC1 (SRC IP: 192.168.10.11) sends an SMTP packet to the BRACU Email Server (DST IP: 192.168.10.4) through Switch0 to Switch1. This packet carries the email message being sent using the Simple Mail Transfer Protocol (SMTP).

In Packet 6, the BRACU Email Server (SRC IP: 192.168.10.4) replies back to PC1 (DST IP: 192.168.10.11) with an SMTP acknowledgment packet, confirming that the email was received with success.

6. For packet 6::

What is the purpose of this DNS packet?

From PC0 to local DNS server, the dns query moves to ensure that pc0 knows the correct IP address of the mail server which is 192.168.10.4 (BRACU email server) to access the mailbox before receiving emails through POP3 protocol.

7. For packet 7&8::

Explain why the POP packet was sent to the email server and the server replied with a POP packet?

In Packet 7, the client PC0 (SRC IP: 192.168.10.10) sends a POP3 packet to the BRACU Email Server (DST IP: 192.168.10.4) requesting to receive emails from its mailbox.

In Packet 8, the BRACU Email Server (SRC IP: 192.168.10.4) replies to PC0 (DST IP: 192.168.10.10) with a POP3 response packet, containing the requested email data confirming the success receiving of the mail that was sent by PC1.