

Last semester, I had a project from one of my courses. The project was about sender and receiver, sender sent a packet to receiver, and receiver received it. The packet was written as UDP packet, so the goal for this project was to rewrite the packet from UDP to TCP.

It sounded easy when I first heard about the project, but the most difficult thing was to understand the difference between the two type of packets.

The project description indicated that everything we need has been provided, all we need to do was to understand the content for each type of packet. After some research, I have learned that an UDP header is formed by 4 parts: source ip, destination ip, payload, and checksum. TCP header looks a little different from UDP header but almost the same. TCP header consists of source ip, destination ip, data offset, payload, and checksum. Compare to both type of packet header, we can easily find the extra part. Therefore, I added the data offset into the header and repacked it so that the packet became a TCP packet.

This is entirely my own work, except as disclosed in the documentation. I gave help to the following persons:

Signed Cheng Wei Liao