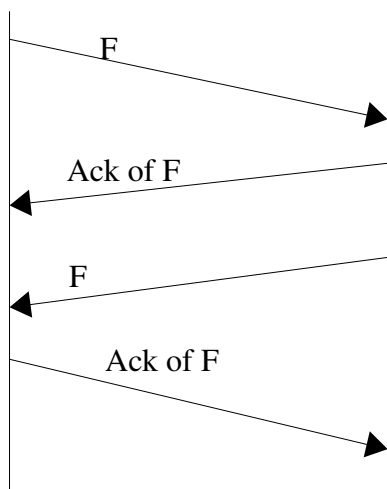


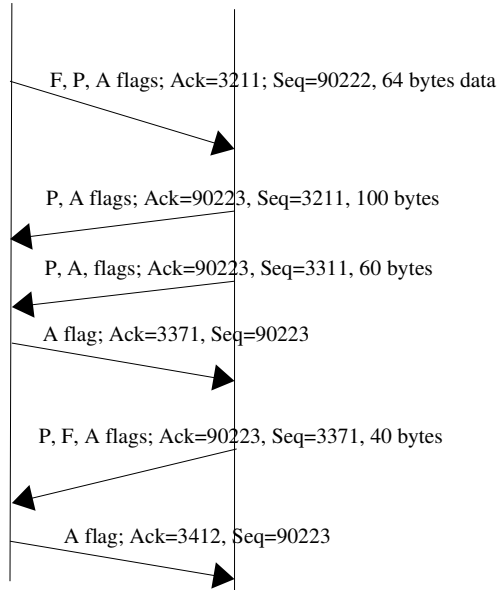
TCP connection termination

The termination of a TCP connection can be initiated from either side (client or server). This is accomplished by sending an F flag. The F flag, similar to S flag, consumes one sequence number (think of it as a byte, even though there is no data attached to the flag bit). The F flag from a host, say A, is telling the other side, B, that A has finished sending data. At this point we have a half-closed TCP connection—one side has finished sending data, but the other side may still send data. B can continue to send data to A, and A can send ACKs of the data. When B is finished sending data, it issues an F flag, which A will acknowledge, leading to connection closure. Basically four exchanges are involved in a connection termination as shown below:



Note that data can accompany a TCP header with an F flag – only a TCP header that carries an S flag is not supposed to carry any data.

Here is a more complicated example of a TCP connection termination exchange.



Here is an edited tcpdump of a connection establishment and connection termination session – the figure below summarizes the exchanges

