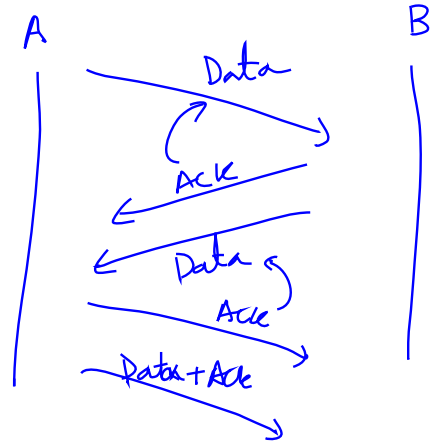


TCP

SEQ # , ACK #



CONNECTION ESTABLISHMENT

SYN: Synchronization

3-way handshake

Active open (CLIENT)

SYN flag set in header
SYN (SEQ=x)

Passive participant (SERVER)
LISTENING

both flags set

SYN+ACK (SEQ=y)
(ACK=x+1)

ACK

(ACK=y+1)

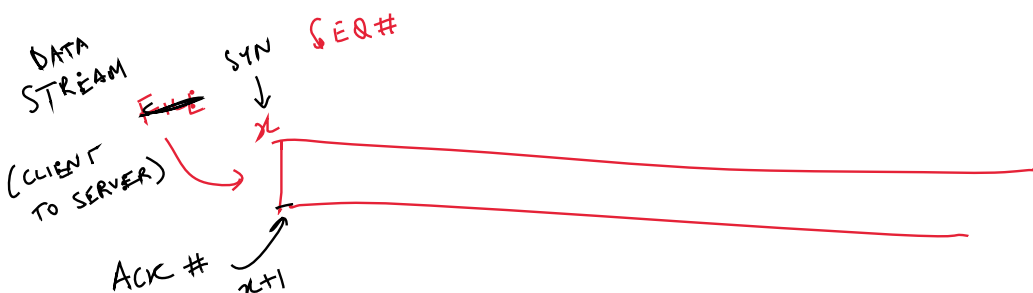
LISTEN

starting seq #

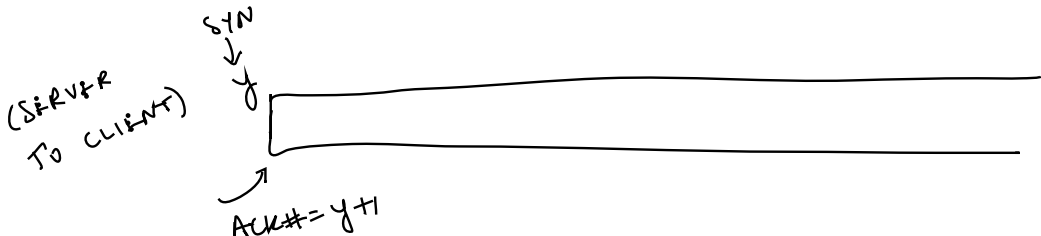
SYN-RCVD

SYN, FIN SEGMENTS
DON'T HAVE DATA
BUT CONSIDERED TO
COMMUNICATE 1 BYTE

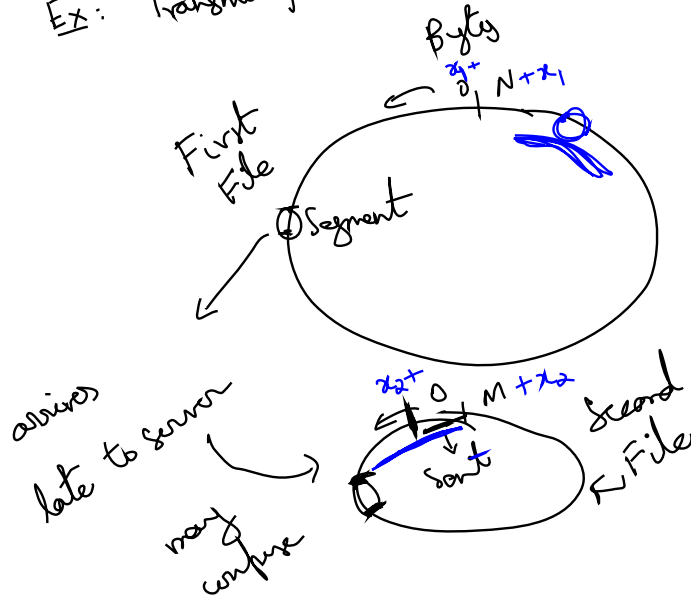
x → randomly selected



⇒ get everything from START TILL ONE LESS THAN THE ACK #



Ex: Transmitting Files



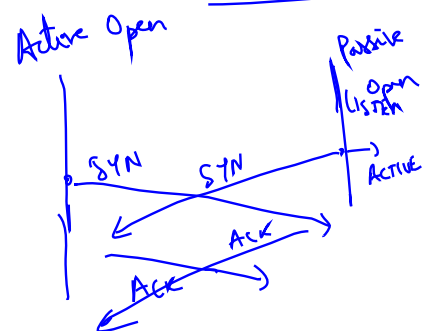
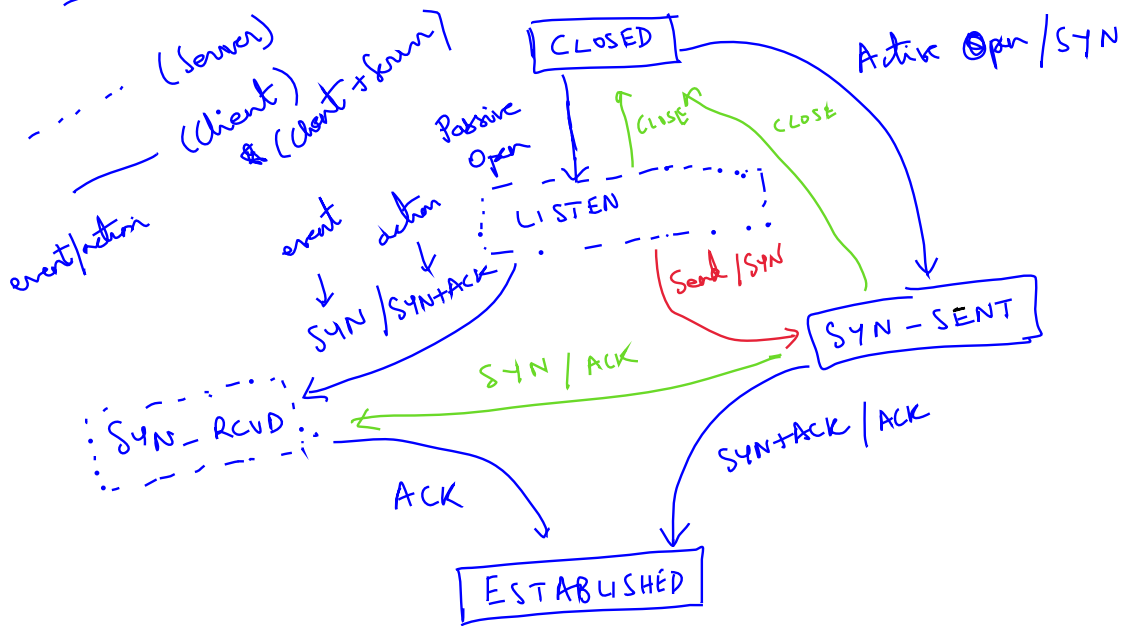
Client File Server

segment (late)

Assume port #s are same

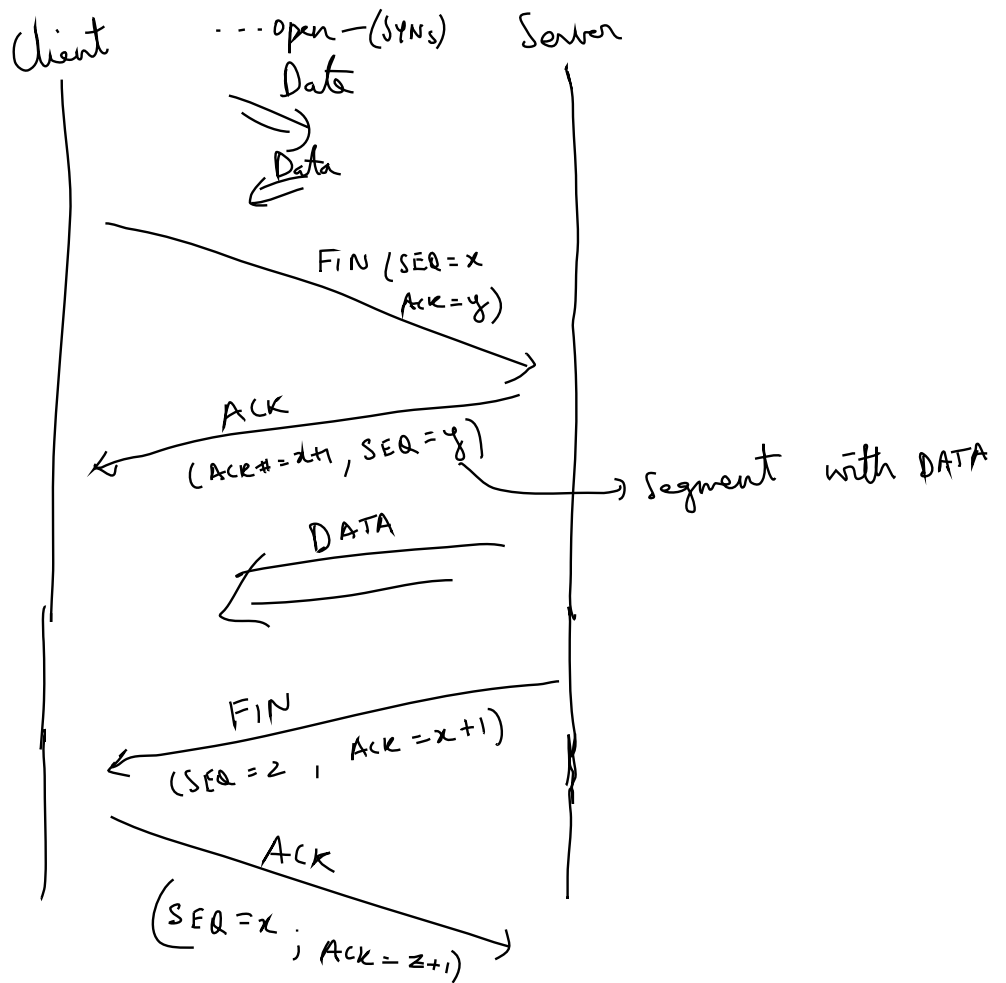


STATE DIAGRAM



CONNECTION TERMINATION (USE FIN)

(1) Half-close (closed by one end at a time)



(2) ^{handshake} 3-way termination (both close at same time)

