Connection setup
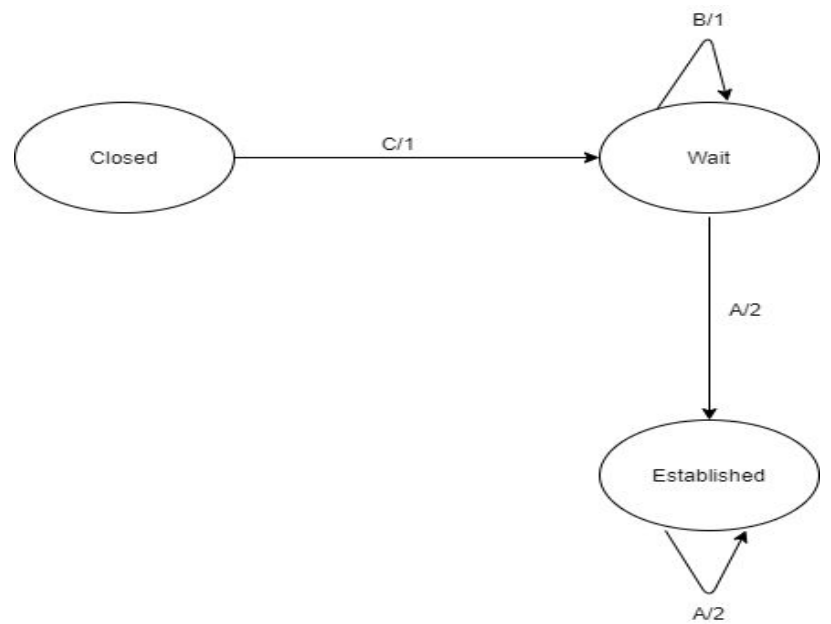
Sender
1: Send SYN
2: Send ACK
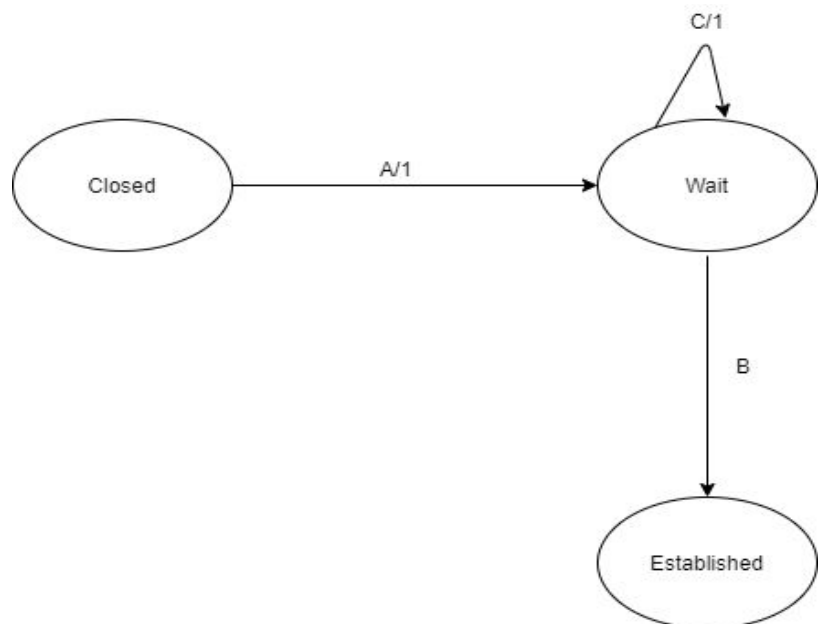
A: ACK and SYN received
B: Timer expired
C: Socket opened correctly

```
         B/1
          ↺
+--------+  C/1  +--------+
| Closed | ----> |  Wait  |
+--------+       +--------+
                     |
                    A/2
                     |
                     v
               +-------------+
               | Established |
               +-------------+
                     ↺
                    A/2
```

Receiver
1:Send SYN+ACK

A: Received SYN
B:Received ACK
C: Timer expired

```
         C/1
          ↺
+--------+  A/1  +--------+
| Closed | ----> |  Wait  |
+--------+       +--------+
                     |
                     B
                     |
                     v
               +-------------+
               | Established |
               +-------------+
```

Connection tear down
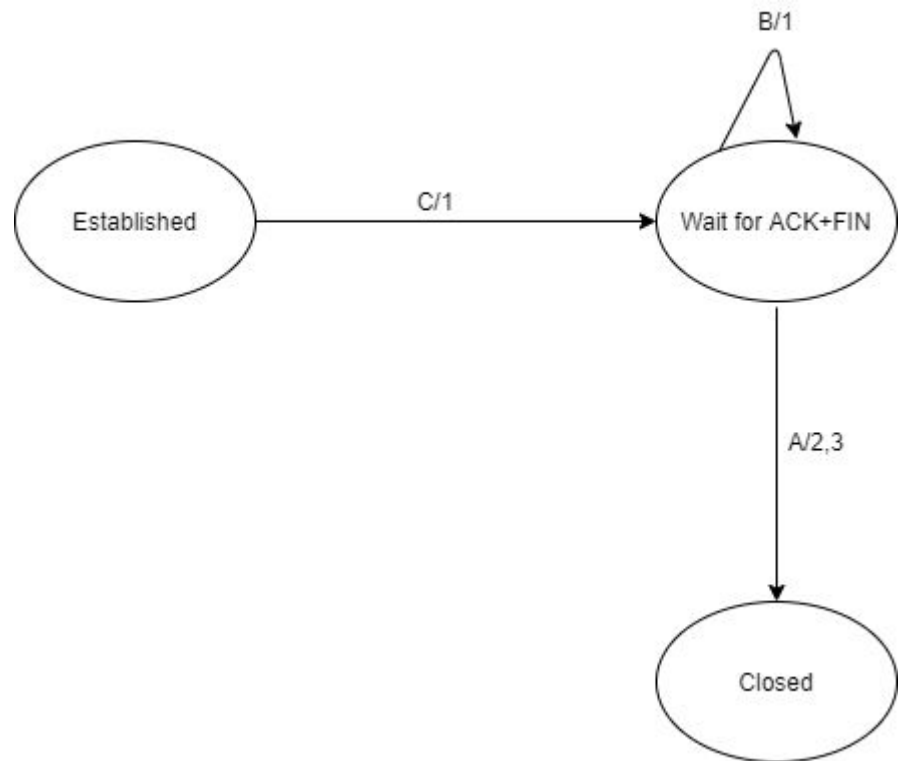
Sender
1: Send FIN
2: Send ACK
3: Close connection

A: Received ACK and FIN
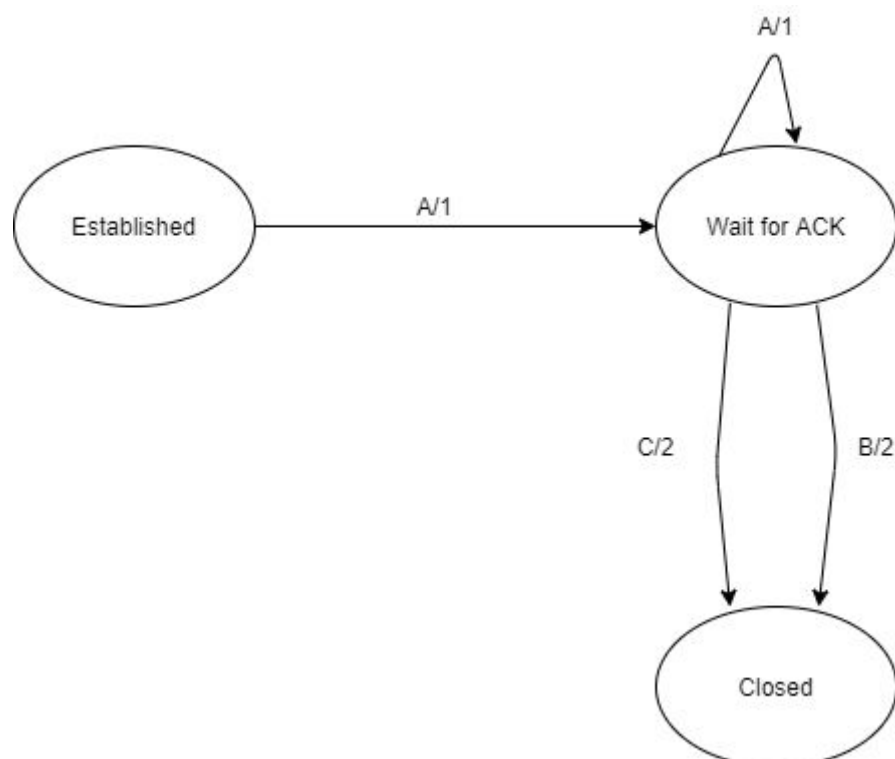B: Timer expired
C: Decision to close connection

```
                                    B/1
                                   ⟲
  ┌─────────────┐    C/1    ┌──────────────────┐
  │ Established │ ───────→ │ Wait for ACK+FIN │
  └─────────────┘          └──────────────────┘
                                    │
                                 A/2,3
                                    │
                                    ↓
                            ┌─────────────┐
                            │   Closed    │
                            └─────────────┘
```

Receiver
1: Send ACK+FIN
2: Close connection

A: Received FIN
B: Received ACK
C: Timer expired

```
                                    A/1
                                   ⟲
  ┌─────────────┐    A/1    ┌──────────────┐
  │ Established │ ───────→ │ Wait for ACK │
  └─────────────┘          └──────────────┘
                              │          │
                            C/2        B/2
                              │          │
                              ↓          ↓
                            ┌─────────────┐
                            │   Closed    │
                            └─────────────┘
```

Sliding windows

Sender
1: Send packets
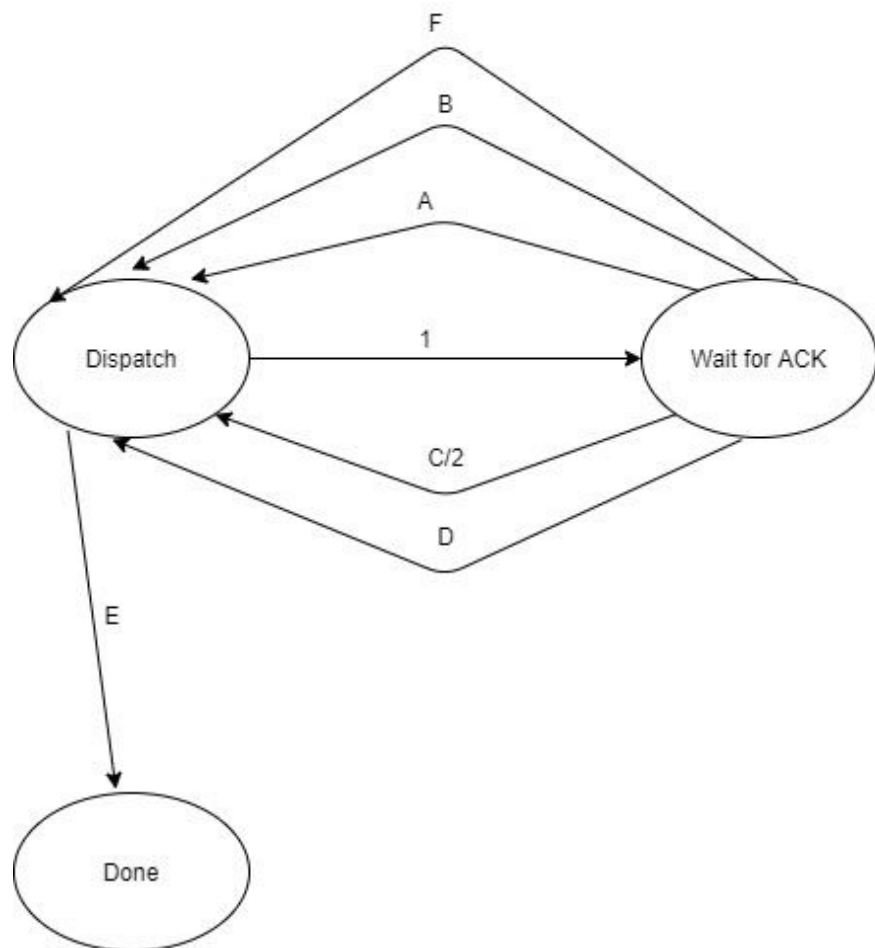2: Slide window X steps

A: Time expired
B: Received packets Go-Back-N
C: Received correct ACK for X packets
D: Received incorrect ACK (Wrong crc)
E: No more data to send
F: Received ACK of wrong seq number

F

B

A

Dispatch — 1 → Wait for ACK

C/2

D

E

Done

Receiver
1: Send ACK
2: Send Go-Back-N

A: Received correct packet
B: Received wrong sequence number
C: Received corrupt packet
D: Received new packet

A/1

B/2

Listen — D → Read

C/2