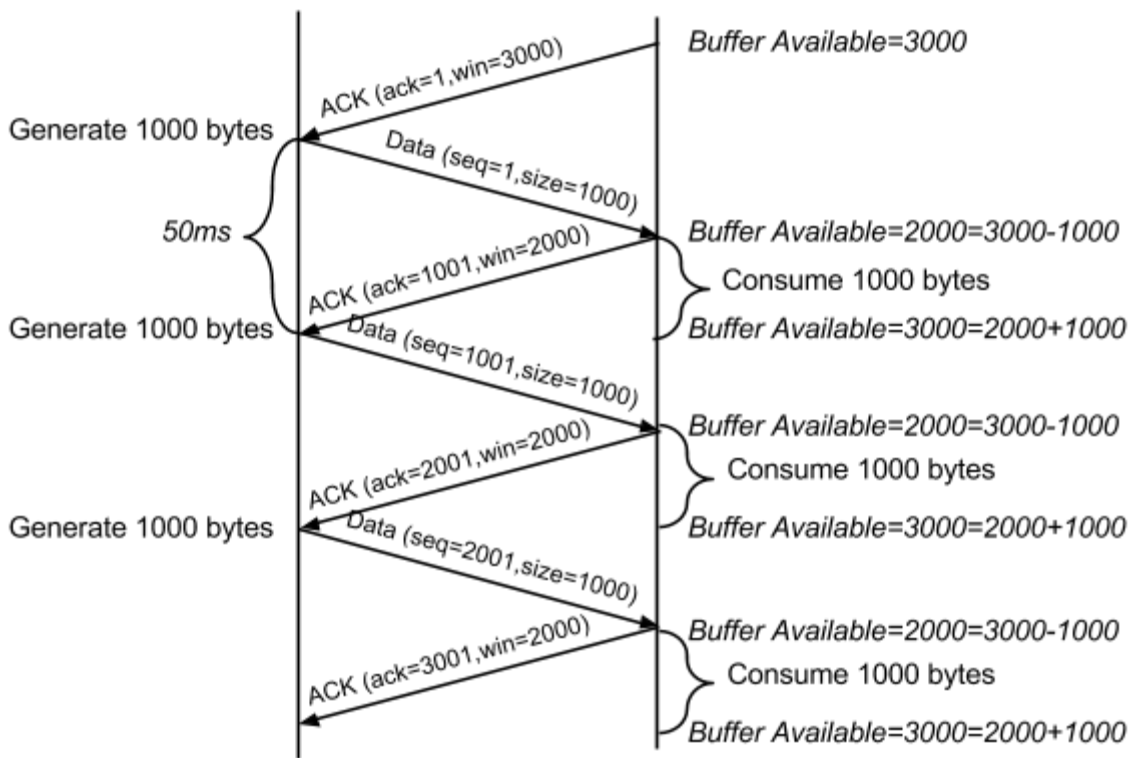


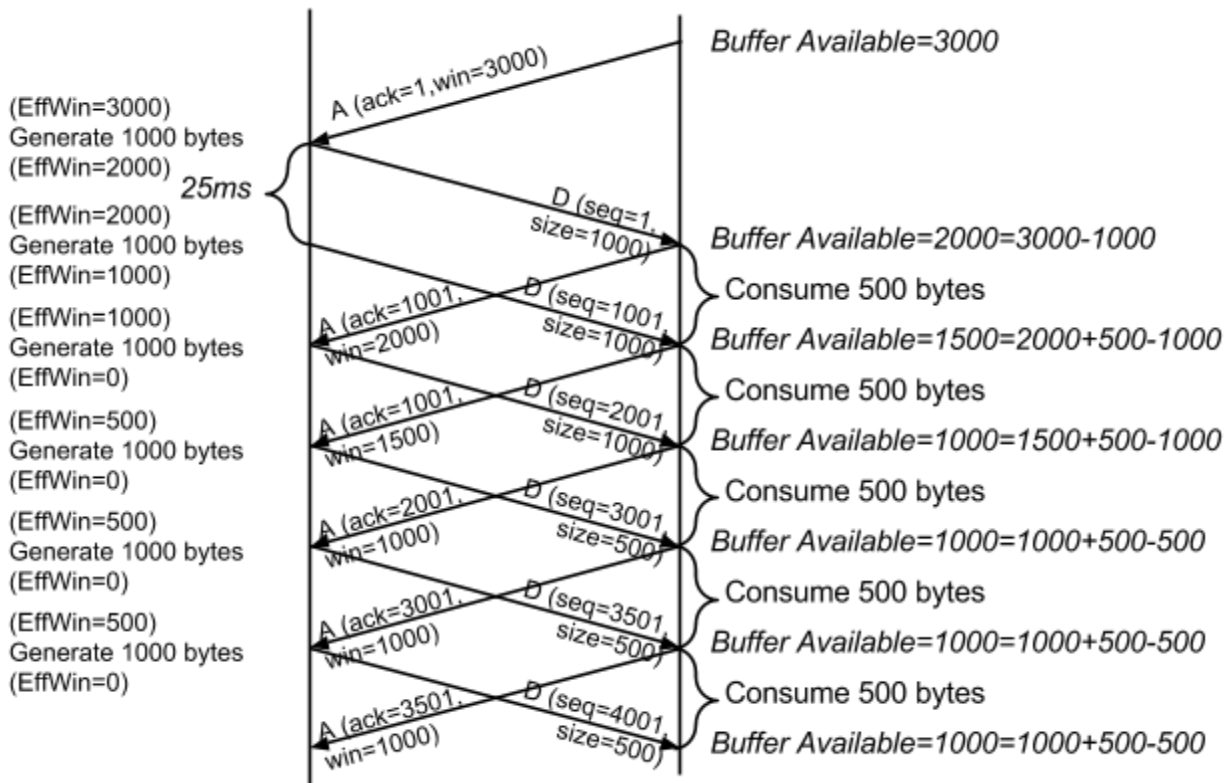
TCP: When to Transmit

- Factors affecting when to transmit
 - How much data has the sending application generated?
 - How much buffer space does the receiver have available?
 - How much data has been sent but not acknowledged?
- Scenario 1: receiver consumes data faster than sender generates data
 - MSS is 1000 bytes
 - RTT is 50 ms
 - Receiver's buffer size is 3000 bytes
 - Sender generates 1000 bytes every 50ms
 - Receiver consumes 1000 bytes in 25ms
 - Timeline



- Scenario 2: receiver consumes data slower than sender generates data
 - MSS is 1000 bytes
 - RTT is 50 ms
 - Receiver's buffer size is 3000 bytes
 - Sender generates 1000 bytes every 25ms
 - Receiver consumes 500 bytes in 25ms

○ Timeline without Nagle's algorithm



○ Timeline with Nagle's algorithm

