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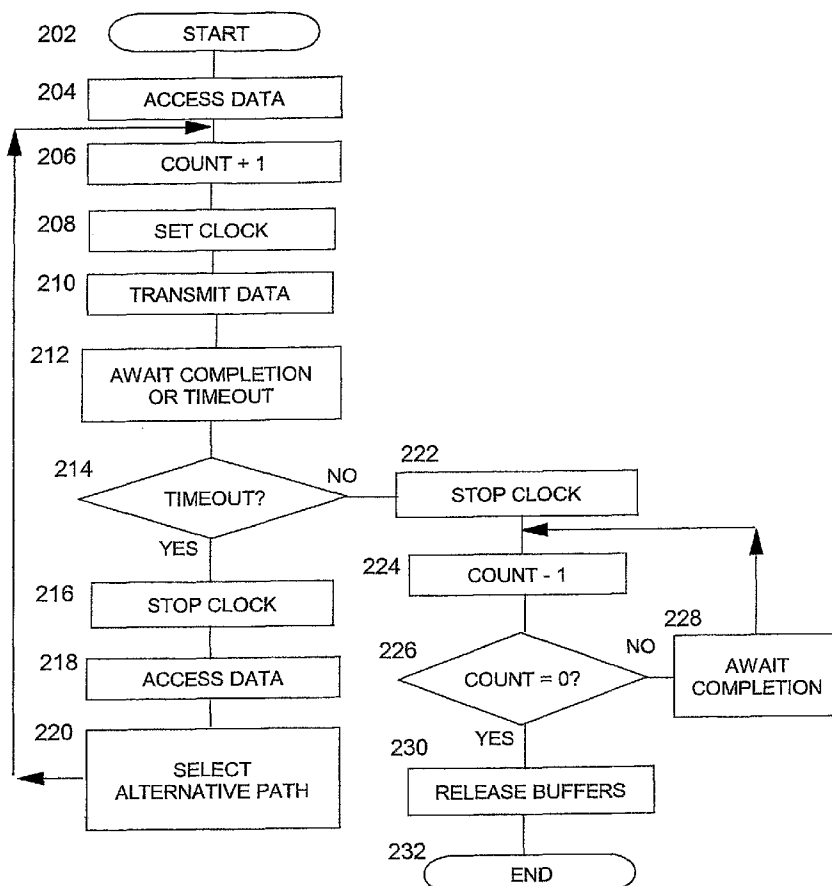
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(54) Title: **PREEMPTIVE RETRANSMISSION OF BUFFERED DATA IN A NETWORK**



(57) Abstract: An apparatus for data transmission over a network comprises a buffer, a timer mechanism for timing an optimum interval (less than the round-trip error response delay) for retransmission of data. A first accessor accesses data in a buffer for transmission and starts a first timeout clock. Second or further accessors of the buffer are responsive to a timeout to access the data, start a timeout clock and attempt to transmit the data on a path avoiding path elements used by prior accessors. A counter increments and decrements a count of the references to the buffer by accessors and signals when the count reaches zero. A memory manager returns the buffer to a free buffer pool responsive to the reference counter signaling that the count has reached zero. An analysis mechanism can be used to determine the optimum interval and tune the timer mechanism.

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