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(54) Title: EARLY TERMINATION OF PUSCH WITH NEW UPLINK GRANT

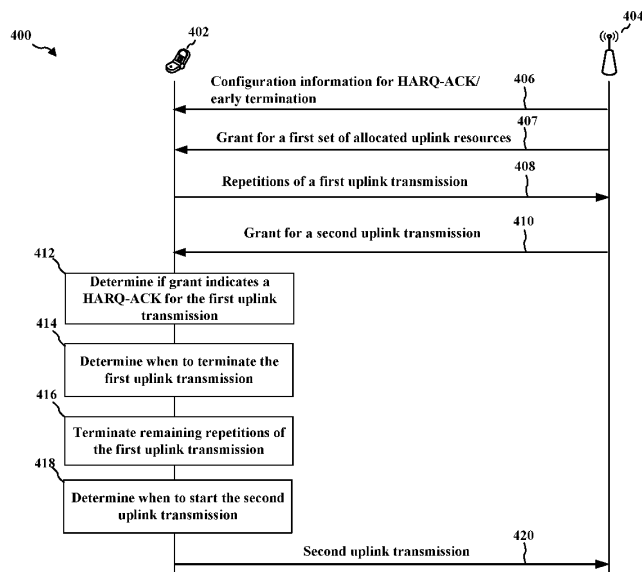


FIG. 4

(57) Abstract: A method for early termination of an ongoing uplink transmission based on implicit HARQ-ACK is disclosed. A wireless device may receive a first grant for a first uplink transmission and may begin repetitions of the first uplink transmission. The wireless device may receive a second grant for a second uplink transmission during the ongoing first uplink transmission. The wireless device may determine if the second grant is an implicit HARQ-ACK and may perform an early detection of the HARQ-ACK. The wireless device may terminate early the first uplink transmission based on the detection of the HARQ-ACK. Allowing the wireless device to terminate the first uplink transmission through an implicit HARQ-ACK frees up channel resources and saves power. The wireless device may also start the second uplink transmission earlier than a schedule time based on the early detection of the HARQ-ACK, eliminating the waste of unused uplink resources and saving power.

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