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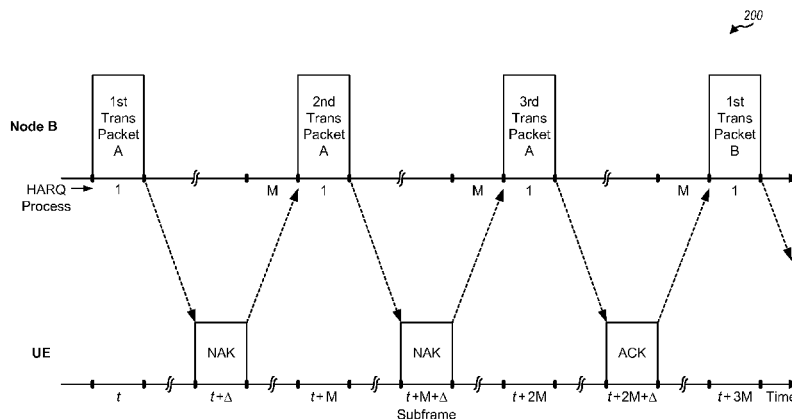


FIG. 2

(57) Abstract: Techniques for controlling data transmission in a wireless communication system based on hybrid automatic retransmission (HARQ) are described. In one design, a user equipment (UE) may determine the number of HARQ processes (Z) supported by the UE, e.g., based on the amount of resources available at the UE. The UE may send information indicative of the number of HARQ processes supported by the UE to a Node B. The UE may thereafter receive data from the Node B on up to Z HARQ processes. In one design, the UE may receive data for non-guaranteed bit rate (non-GBR) traffic on up to Z HARQ processes and may receive data for guaranteed bit rate (GBR) traffic on up to all HARQ processes available in the system. In another design, the UE may receive data for both GBR traffic and non-GBR traffic on up to Z HARQ processes.