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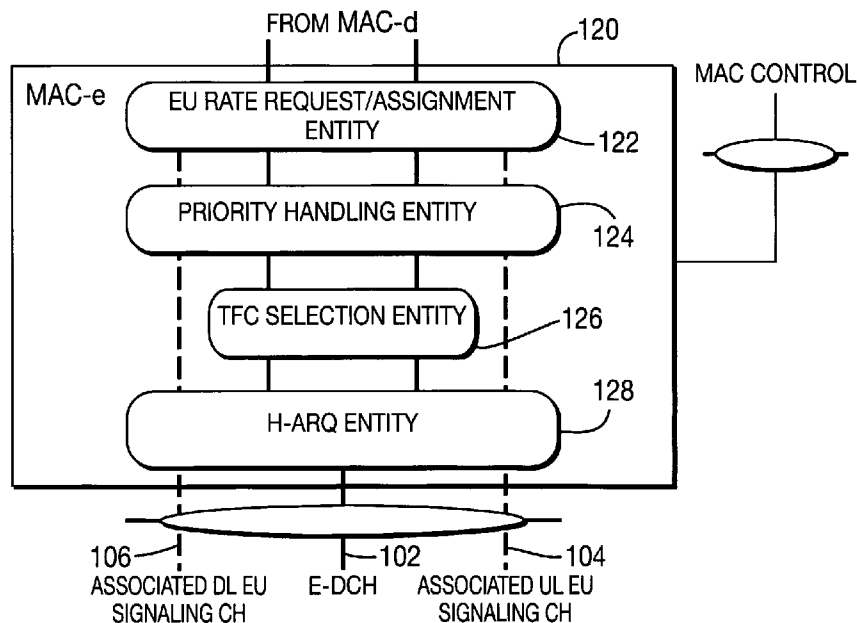
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(54) Title: MEDIUM ACCESS CONTROL LAYER ARCHITECTURE FOR SUPPORTING ENHANCED UPLINK



(57) Abstract: A medium access control (MAC) layer architecture and functionality for supporting enhanced uplink (EU). A MAC entity for EU, (i.e., a MAC-e entity), is incorporated into a wireless transmit/receive unit (WTRU), a Node-B and a radio network controller (RNC). The WTRU MAC-e handles hybrid-automatic repeat request (H-ARQ) transmissions and retransmissions, priority handling, MAC-e multiplexing, and transport format combination (TFC) selection. The Node-B MAC-e entity handles H-ARQ transmissions and retransmissions, E-DCH scheduling and MAC-e de-multiplexing. The RNC MAC-e entity provides in-sequence delivery and handles combining of data from different Node-Bs.

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