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Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

[Continued on next page]

(54) **Title**: A METHOD AND APPARATUS FOR EFFICIENT HANDOVER IN LTE

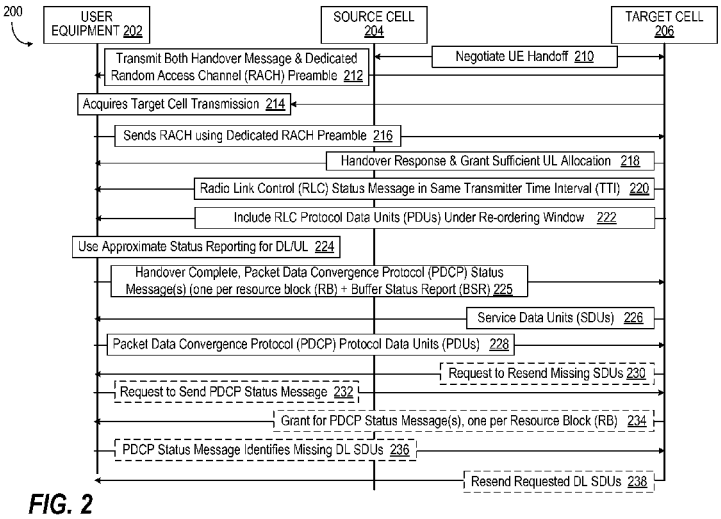

FIG. 2

(57) **Abstract**: An efficient use of downlink (DL) air-interface bandwidth during handoff of user equipment from a source cell to a target is provided. In conjunction with a handoff message to ensure receipt, expedited status exchanges are provided so that initial communications do not require a subsequent retransmission of duplicate data. A method for transmitting a dedicated Random Access Channel (RACH) preamble and cell information, receiving a RACH from the user equipment to start communication, and transmitting a handover message and a radio link control (RLC) status message or an UL grant in response to receiving the RACH is provided. Also, a method for receiving a handover message and target cell information from a source cell to start handover negotiations, initiating communication with target cell using the target cell information, receiving a handover message and (RLC) status message, and using the received information to approximate status reporting is provided.

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