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Cheng et al.

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(54) **REUSE OF SECURITY ASSOCIATIONS FOR IMPROVING HAND-OVER PERFORMANCE**

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Related U.S. Application Data

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(51) **Int. Cl.**⁷ **H04M 1/66**

(52) **U.S. Cl.** **370/331**; 455/411; 455/410; 370/328; 370/338; 380/247

(58) **Field of Search** 370/328, 338, 370/331; 455/410, 411; 380/247

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(57) **ABSTRACT**

In a radio telecommunication system, the performance of a mobile unit can be significantly improved during a hand-over procedure by reusing existing security associations that correspond to the mobile unit. By reusing existing security associations, a mobile unit can begin secure communications immediately following the hand-over. Otherwise, and in accordance with conventional practice, the mobile unit will have to undertake the time consuming task of renegotiating the required security associations, before it can begin transmitting and receiving secure communications.

35 Claims, 5 Drawing Sheets

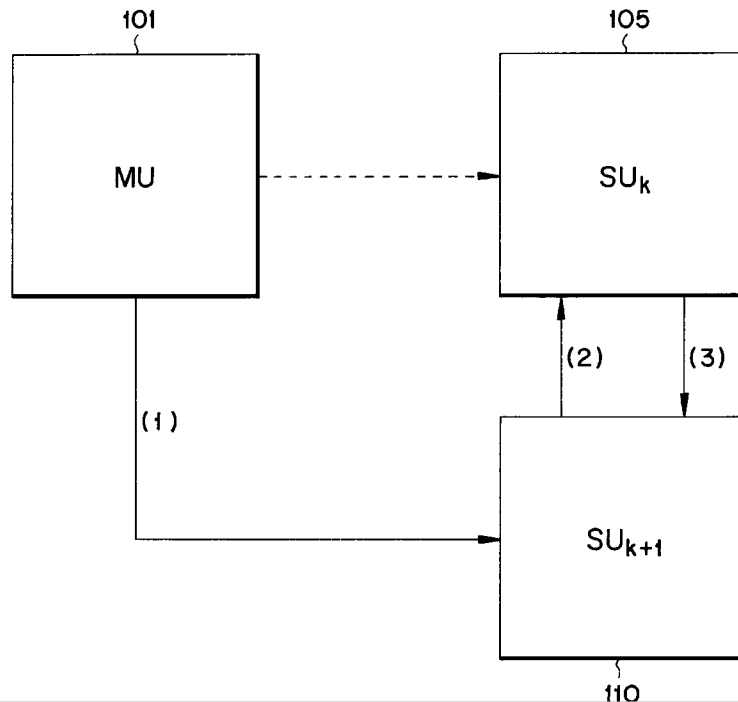
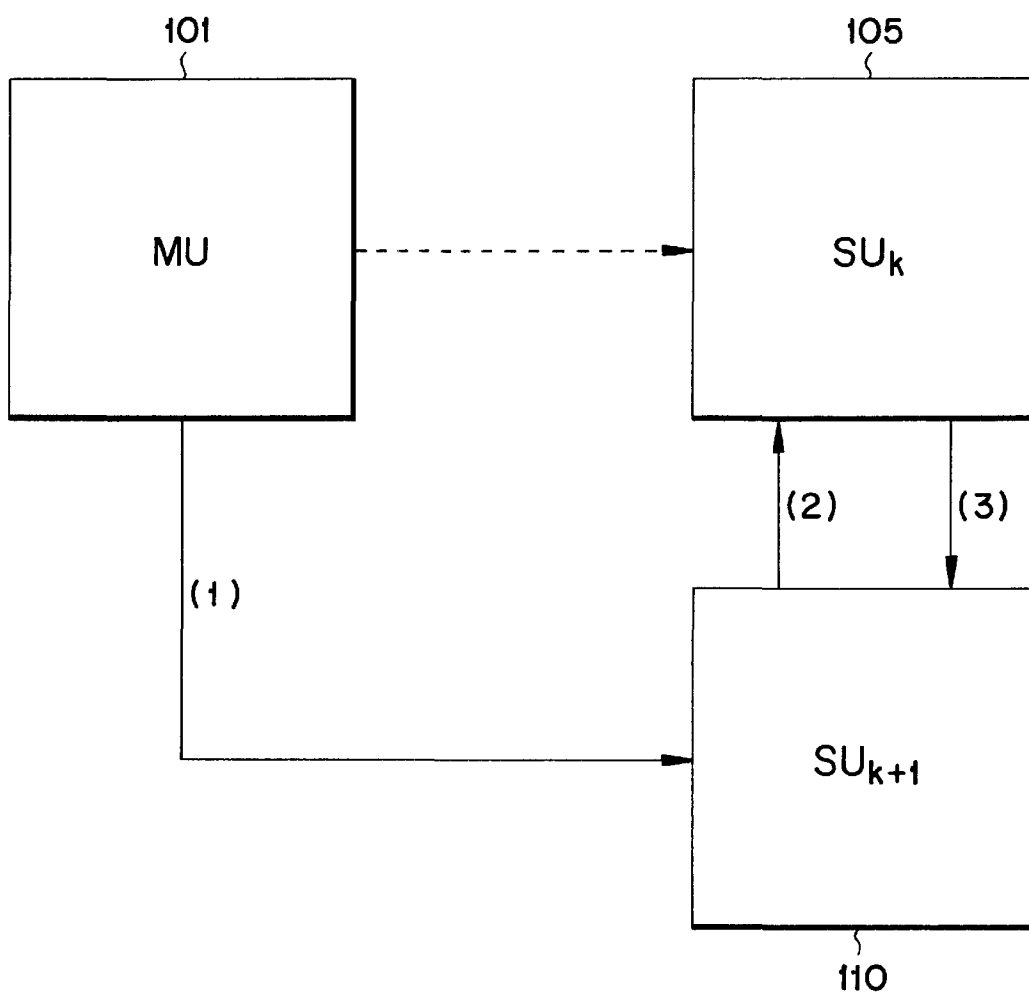


FIG. 1



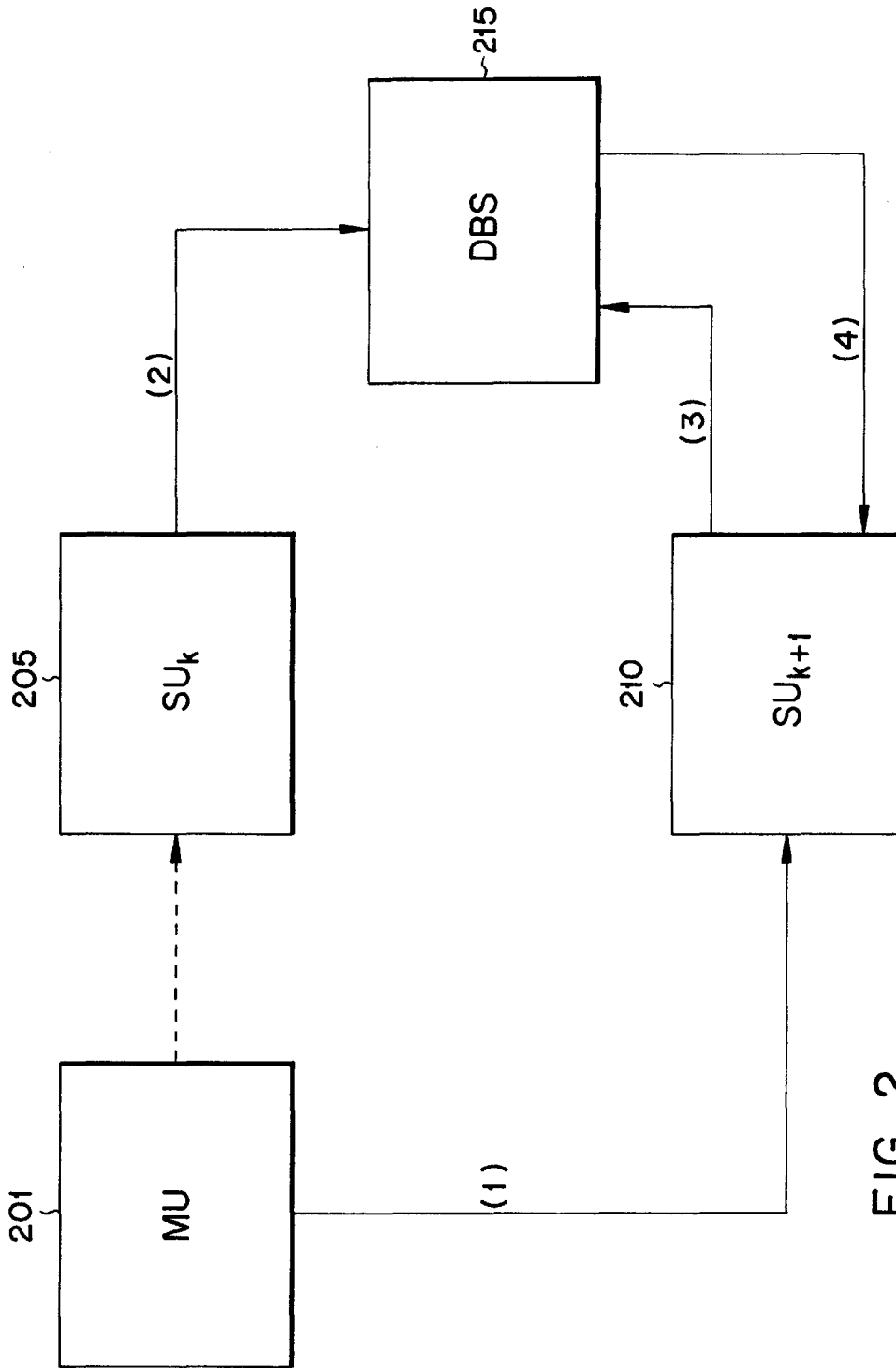
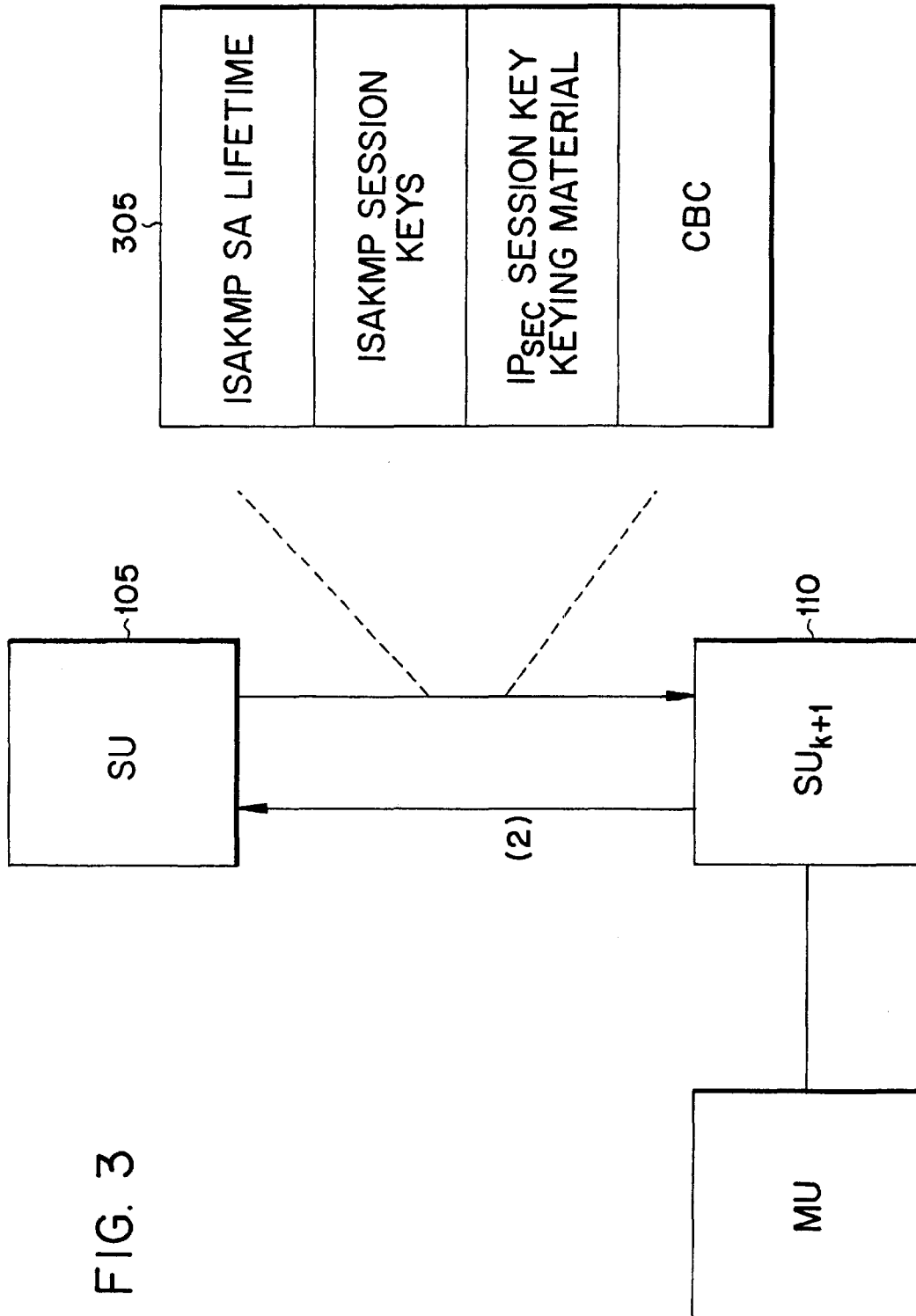


FIG. 2



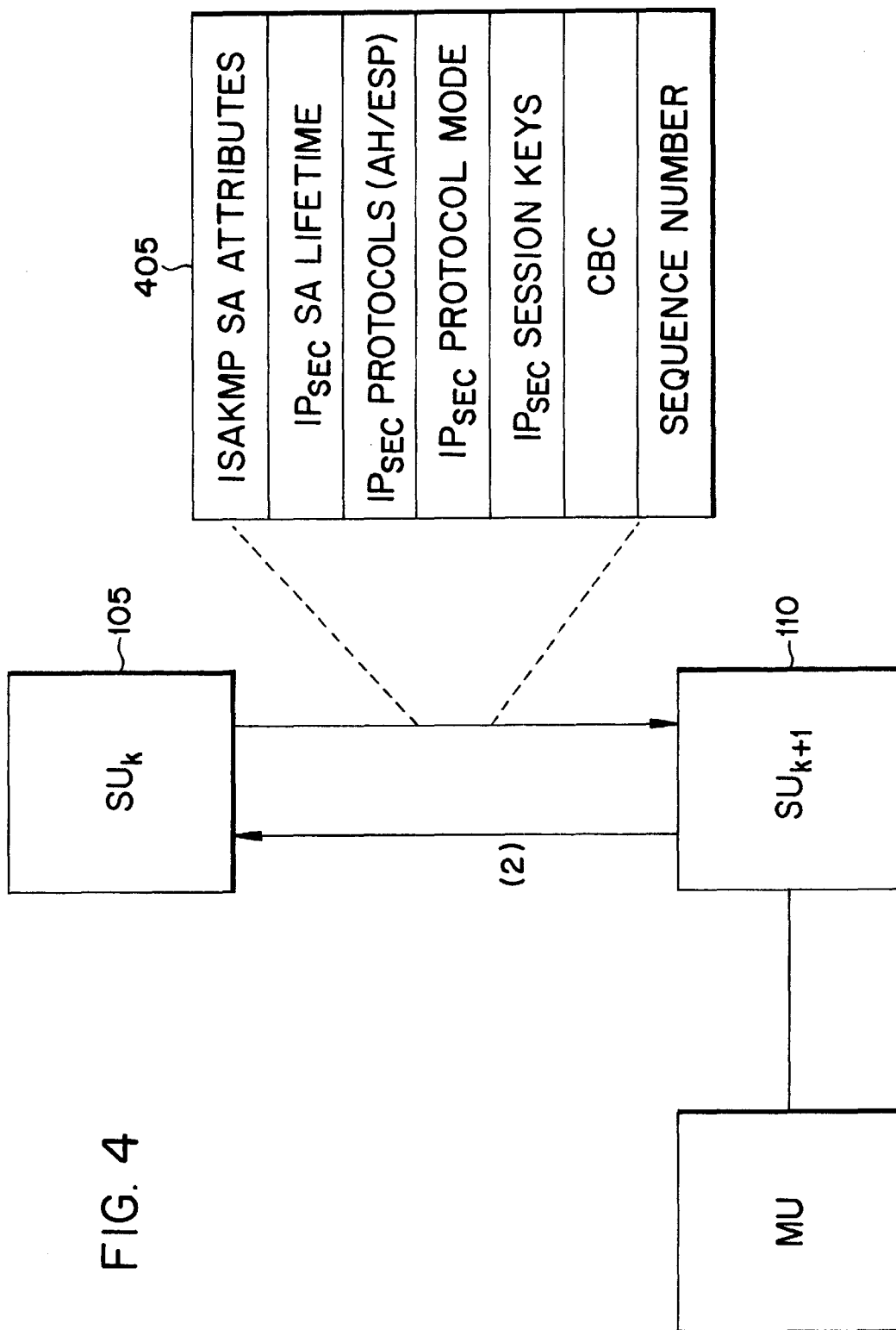


FIG. 4

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