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(54) Title: LOCAL SECURITY KEY UPDATE AT A WIRELESS COMMUNICATION DEVICE

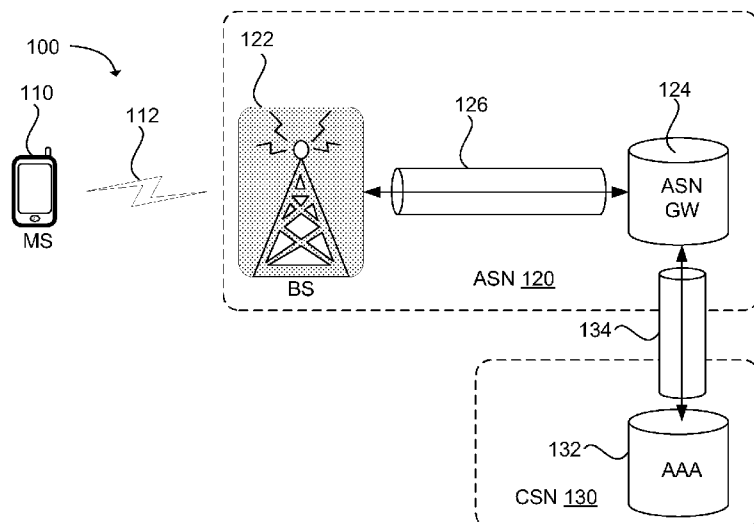


FIG. 1

(57) Abstract: A system and method for updating a security key at a base station (BS) is disclosed. The method comprises the operation of transmitting a handover command from the base station to a mobile station. The operation of incrementing a base station instance of an authentication key counter at the base station follows. The next operation of the method can be calculating a new local authentication key (AK*) at the base station using the base station instance of the authentication key counter and an authentication key (AK). The AK may be previously obtained from an authenticator. The method further includes communicating by the base station with the mobile station using the new local authentication key after a predetermined action time.





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A. CLASSIFICATION OF SUBJECT MATTER**H04W 12/04(2009.01)i, H04W 12/06(2009.01)i, H04W 36/08(2009.01)i, H04L 9/32(2006.01)i**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

H04W 12/04; H04W 12/06; H04L 9/00; H04W 36/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: handover, authentication, key

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2009-0209259 A1 (ALEE BRUSILOVSKY et al.) 20 August 2009 See abstract; paragraphs [0042]-[0052]; claims 1,2,4,7,9 and figure 3.	1-25
A	US 2010-0046467 A1 (SHIN-YAN CHIOU et al.) 25 February 2010 See abstract; paragraphs [0029]-[0034]; claims 1,4,6,8 and figures 3,4.	1-25
A	US 2009-0136036 A1 (MAKOTO LKADA) 28 May 2009 See paragraphs [0066]-[0068] and figure 7.	1-25
A	US 2009-0274302 A1 (LIN-YI WU et al.) 05 November 2009 See abstract; claims 1,16 and figures 5-10.	1-25

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:

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