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(54) Title: PACKET SWITCHED CORE NETWORK ARCHITECTURE FOR VOICE SERVICES ON SECOND-AND THIRD-GENERATION WIRELESS ACCESS NETWORKS

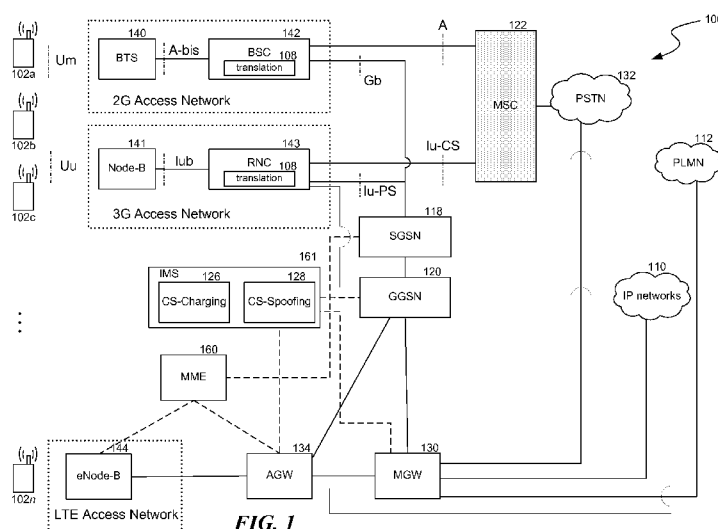


FIG. 1

(57) Abstract: Communications systems and methods with an evolved packet-switched core network architecture to enable voice services on second- and third- generation wireless access networks. The systems and methods permit unmodified 2G and 3G mobile devices to conduct voice calls using conventional circuit-switched user-plane and control-plane protocols at the air interface while the voice calls are switched at the back-end using a packet-switched core network. The system may include a translation module at a controller component that is configured to provide both user- plane and control-plane translation functions between an unmodified 2G/3G mobile device that utilizes circuit-switched protocols for a voice call and the packet-switched core network that utilizes packet-switched protocols to switch the voice call.

A. CLASSIFICATION OF SUBJECT MATTER***H04W 4/18(2009.01)i, H04W 4/16(2009.01)i, H04W 8/02(2009.01)i, H04W 4/24(2009.01)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 4/18

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: circuit-switched protocol, packet-switched protocol, voice data, Session Initiation Protocol, signaling message

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2009-0005048 A1 (BAE EUN-HUI et al.) 01 January 2009 See paragraphs [0030], [0031]; figure 3.	1-24
A	US 2006-0268781 A1 (SVEN ANDERS BORJE SVENSSON et al.) 30 November 2006 See paragraphs [0031], [0035]; figure 1.	1-24



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See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

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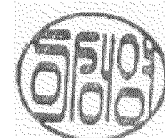
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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2009-0005048 A1	01.01.2009	KR 10-2008-0102682 A KR20080102682A WO 2008-143459 A1	26.11.2008 26.11.2008 27.11.2008
US 2006-0268781 A1	30.11.2006	None	