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(81) Designated States (unless otherwise indicated, for every kind of national protection available):

AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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(54) Title: TEMPORAL AND SPATIAL BOUNDING OF PERSONAL INFORMATION

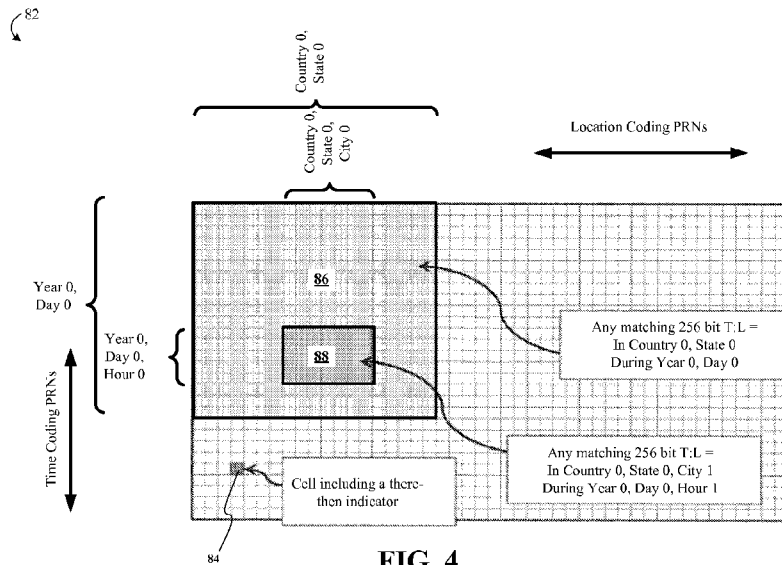


FIG. 4

(57) Abstract: Apparatus, systems, and/or methods to temporally and spatially bound personal information. A pseudo random number corresponding to time based on a random number time seed and generate a pseudo random number corresponding to location based on a random number location seed may be generated. In addition, the pseudo random number corresponding to time may be mixed with the pseudo random number corresponding to location to generate a combined pseudo random number corresponding to a specific user at a specific location at a specific time. The combined pseudo random number may be used to store and/or read personal information in an anonymous manner.

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A. CLASSIFICATION OF SUBJECT MATTER**G06Q 30/02(2012.01)i, G06Q 50/10(2012.01)i, H04W 4/02(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)

G06Q 30/02; H04W 4/12; G06F 15/00; G06Q 50/30; G06F 17/30; G06F 7/58; G06Q 50/10; H04W 4/02

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: pseudo, random, number, time, location, seed, mix

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y A	US 8560587 B2 (JAMES PAUL SCHNEIDER) 15 October 2013 See abstract, claims 1,19 and figures 1-2.	1,6-7,14-15,17,20 ,22,25 2-5,8-13,16,18-19 ,21,23-24
Y A	KR 10-1182450 B1 (AREWITH) 02 October 2012 See paragraph [0017], claims 1,3 and figures 1,3-4.	1,6-7,14-15,17,20 ,22,25 2-5,8-13,16,18-19 ,21,23-24
A	US 2006-0116990 A1 (NORMAN H. MARGOLUS et al.) 01 June 2006 See abstract, claims 1,6 and figure 3.	1-25
A	US 2013-0304781 A1 (ERIC DEY) 14 November 2013 See abstract, paragraph [0035], claims 1-5 and figures 1-2.	1-25
A	KR 10-2009-0024804 A (NXP B.V.) 09 March 2009 See abstract, claims 1,6 and figure 3.	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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"&" document member of the same patent family

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2015/033822

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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