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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, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN, KP, KR, KW, 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, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.
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(54) **Title:** SYSTEM AND METHOD OF SOCIAL AUTHENTICATION AND DATA SYNCHRONIZATION IN A NETWORK

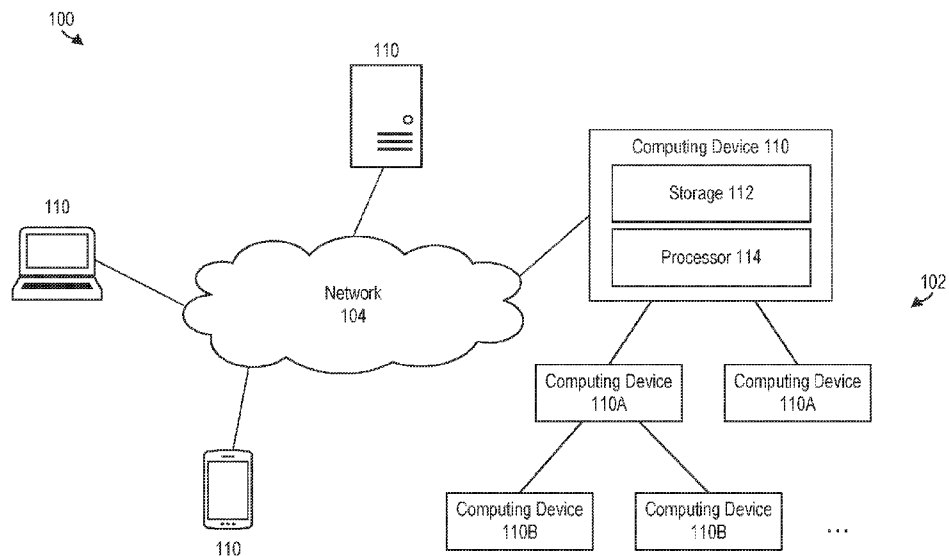


FIG. 1

(57) **Abstract:** The present technology discloses storing data in a peer-to-peer network. A first computing device identifies other computing devices in the peer-to-peer network. Each of the computing devices have an established social relationship with at least another one of the computing devices. A degree of connection between the first computing device and each of the other computing devices is detected. A group of the other of computing devices is selected based on the degree of connection for storing the data, and a storage trust level is assigned to each of the other computing devices in the group. The storage trust level of each of the other computing devices is based on the established social relationship. The data is then transmitted to each of the other computing devices in the group for storage.



TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

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A. CLASSIFICATION OF SUBJECT MATTER
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B. FIELDS SEARCHED
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 H04L

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

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2006/115919 A2 (CONTENTGUARD HOLDINGS INC [US]; PANNU TEJINDER PAL [US] ET AL.) 2 November 2006 (2006-11-02) paragraphs [0008], [0024] - [0030] abstract	1-30
X	US 2007/180078 A1 (MURPHY ELISSA E [US] ET AL) 2 August 2007 (2007-08-02) paragraphs [0003] - [0005]; claims 12-14	1-30
X	US 2016/173499 A1 (BIANCHI SILVIA C S [BR] ET AL) 16 June 2016 (2016-06-16) paragraphs [0004], [0035]	1-30

Further documents are listed in the continuation of Box C.

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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
WO 2006115919 A2	02-11-2006	AU 2006240147 A1	02-11-2006
		CN 101167093 A	23-04-2008
		KR 20080011217 A	31-01-2008
		US 2006248573 A1	02-11-2006
		US 2014245382 A1	28-08-2014
		WO 2006115919 A2	02-11-2006

US 2007180078 A1	02-08-2007	CN 101336430 A	31-12-2008
		EP 1979832 A1	15-10-2008
		JP 4890566 B2	07-03-2012
		JP 2009525532 A	09-07-2009
		JP 2012022693 A	02-02-2012
		KR 20080098003 A	06-11-2008
		US 2007180078 A1	02-08-2007
		US 2012166542 A1	28-06-2012
		WO 2007089351 A1	09-08-2007

US 2016173499 A1	16-06-2016	NONE	
