

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
7 August 2008 (07.08.2008)

PCT

(10) International Publication Number
WO 2008/094452 A3

(51) International Patent Classification:
H04L 29/06 (2006.01)

(21) International Application Number:
PCT/US2008/000972

(22) International Filing Date: 25 January 2008 (25.01.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/886,822 26 January 2007 (26.01.2007) US

(71) Applicant (for all designated States except US): **INTER-DIGITAL TECHNOLOGY CORPORATION** [US/US]; 3411 Silverside Road, Concord Plaza, Suite 105, Hagley Building, Wilmington, Delaware 19810 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CHA, Inhyok** [US/US]; 510 Southbridge Circle, Yardley, Pennsylvania 19067 (US). **SHAH, Yogendra, C.** [GB/US]; 10 Regency Court, Exton, Pennsylvania 19341 (US). **YE, Chunxuan**

[CN/US]; 1021 Penn Circle, Apt. E502, King Of Prussia, Pennsylvania 19406 (US).

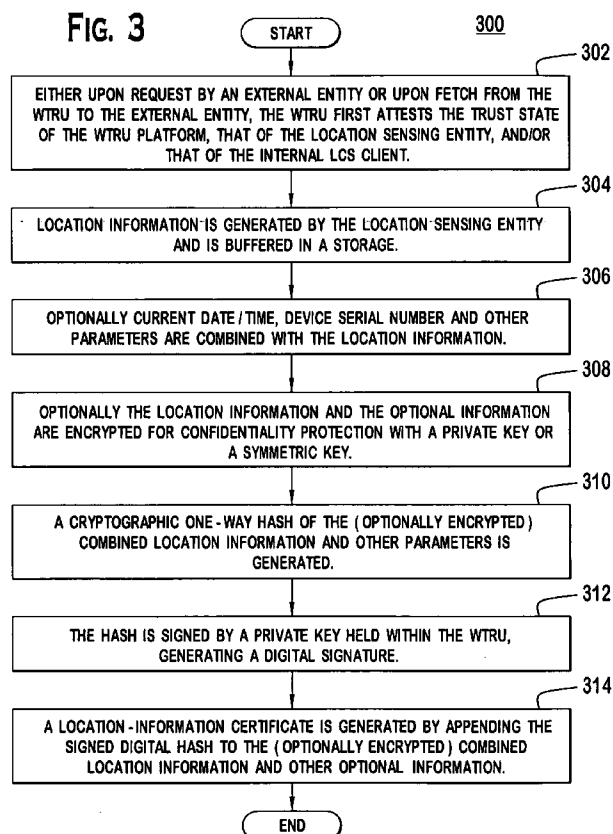
(74) Agent: **BALLARINI, Robert, J.**; Volpe And Koenig, P.C., United Plaza, Suite 1600, 30 S. 17th Street, Philadelphia, PA 19103 (US).

(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, BR, BW, BY, BZ, CA, CH, 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, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR SECURING LOCATION INFORMATION AND ACCESS CONTROL USING THE LOCATION INFORMATION



(57) Abstract: A method and apparatus for securing location information and access control using the location information are disclosed. A wireless transmit/receive unit (WTRU) includes a location sensing entity and a subscriber identity module (SIM). The location sensing entity generates location information of the WTRU and the location information is embedded in a message in an SIM. A trusted processing module in the WTRU verifies integrity of the location information. The trusted processing module may be on the SIM. The location information may be physical location information or contextual location-related information. The trusted processing module is configured to cryptographically secure and bind the location information to the WTRU, and verify trust metrics of an external entity prior to granting an access to the location information or accepting information from the external entity. The trusted processing module may be a trusted computing group (TCG) trusted platform module (TPM) or mobile trusted module (MTM). The location information may be used for an authentication purpose or access control. The location information may be combined with time information.



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

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

Published:

— *with international search report*

(88) Date of publication of the international search report:

29 January 2009