



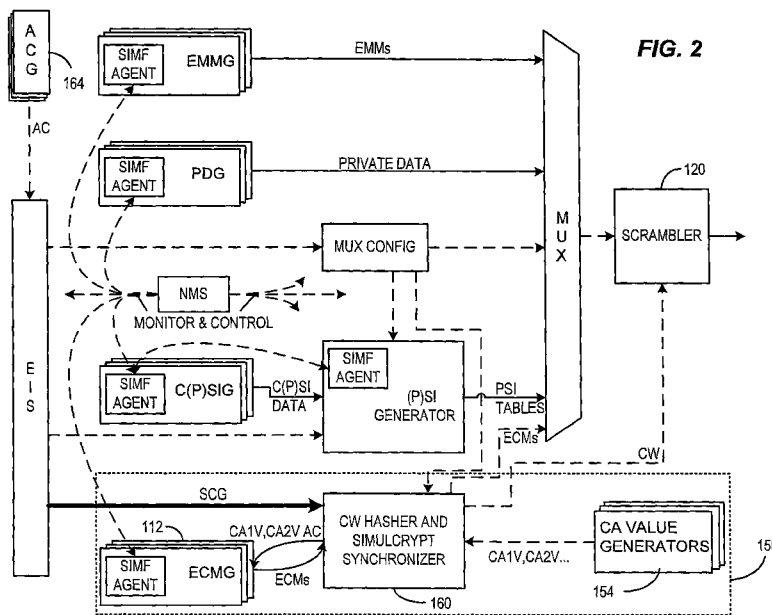
- (51) **International Patent Classification:**  
H04N 7/167 (2006.01)
- (21) **International Application Number:**  
PCT/US2009/056989
- (22) **International Filing Date:**  
15 September 2009 (15.09.2009)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**  
12/284,049 18 September 2008 (18.09.2008) US
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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, 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, 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, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, 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), European (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, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

- Published:**
- with international search report (Art. 21(3))
  - before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

[Continued on next page]

(54) Title: SIMULCRYPT KEY SHARING WITH HASHED KEYS



(57) **Abstract:** A method of sharing keys among a plurality of conditional access (CA) vendors having differing CA systems used at a distribution headend involves receiving a CA Value contribution from each of the plurality of CA vendors at the headend; hashing the CA Values from each of the plurality of CA vendors together using a hashing function to produce an output control word; and at an encrypter at the headend, using the output control word as a content key, wherein the content key is used as an encryption key to encrypt content provided to a plurality of receivers that decrypt the content using any of the conditional access systems. This abstract is not to be considered limiting, since other embodiments may deviate from the features described in this abstract.

WO 2010/033505 A3

**(88)** Date of publication of the international search report:  
24 June 2010

**A. CLASSIFICATION OF SUBJECT MATTER****H04N 7/167(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)

H04N 7/167; H04B 7/185; H04H 1/00; H04L 9/00

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  
(Chinese Patents and application for patent)

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

eKOMPASS(KIPO internal) &amp; Keywords: simulcrypt, CW, hash

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2004-0242150 A1 (HUGH WRIGHT WINSTON et al.) 02 December 2004 See paragraphs [0076]-[0082]; figures 6 and 7.	1-27
A	US 6587561 B1 (YISHAI SERED et al.) 01 July 2003 See column 6, line 12 - column 9, line 8; figures 1A, 1B and 3.	1-27
A	US 2001-0042203 A1 (AVI WATCHFOGEL et al.) 15 November 2001 See paragraphs [0051]-[0071]; figure 1.	1-27
A	US 7254236 B1 (AHMET MURIT ESKICIOGLU et al.) 07 August 2007 See column 2, line 43 - column 7, line 25; figures 1 and 2.	1-27

 Further documents are listed in the continuation of Box C. 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

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

16 APRIL 2010 (16.04.2010)

Date of mailing of the international search report

**20 APRIL 2010 (20.04.2010)**

Name and mailing address of the ISA/KR

Korean Intellectual Property Office  
Government Complex-Daejeon, 139 Seonsa-ro, Seo-  
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Facsimile No. 82-42-472-7140

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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

**PCT/US2009/056989**

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