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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, QA, RO, RS, RU, RW, 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:** SYSTEM AND METHOD FOR CLOUD-BASED SESSION BORDER GATEWAY IMPLEMENTATION

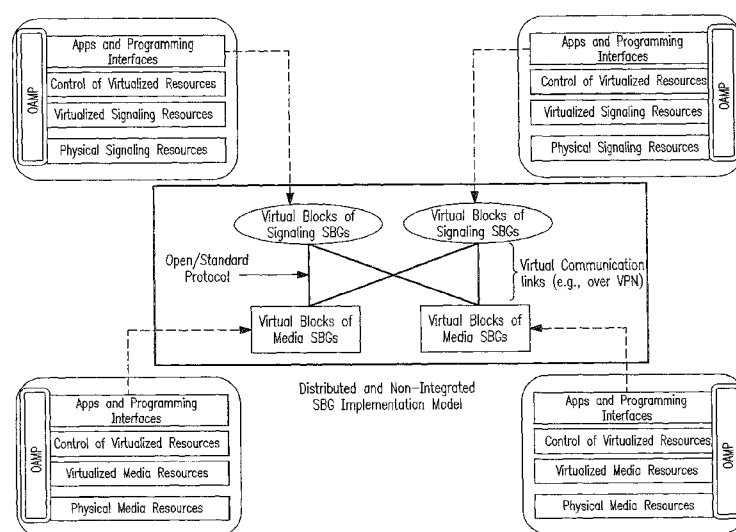


**FIG. 2**

(57) **Abstract:** A system and method for implementing distributed virtual-resource-based (cloud-based) session border gateway (SBG) functions are presented. Because no dedicated physical resources need to be committed for implementation of the SBG features and functions, as in traditional border gateway functions implementations, the invention has significant cost, resource allocation, integration, and operational advantages over traditional methods. In addition, new features and functions can be easily developed and integrated with the Cloud-Based SBG (CB-SBG) implementations very cost-effectively.

**A. CLASSIFICATION OF SUBJECT MATTER*****H04L 12/66(2006.01)i, H04L 29/02(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)

H04L 12/66; H04J 1/16; G06F 15/173; H04L 12/26; H04J 3/16; H04L 12/56

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) &amp; Keywords: session border gateway, SBG, resource, allocation

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                                                       | Relevant to claim No. |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| A         | US 2008-0316938 A1 (SHI XIN) 25 December 2008<br>See the Abstract; paragraphs [0019], [0045]-[0058]; claims 1-20 and figures 1-3.        | 1-20                  |
| A         | US 7570587 B1 (WILSON PAUL G. et al.) 04 August 2009<br>See the Abstract; column 6, line 34-column 8, line 39; claims 1-26 and figure 3. | 1-20                  |
| A         | US 2007-0086433 A1 (PHILIP CUNETTO et al.) 19 April 2007<br>See the Abstract, paragraphs [0107], [0112] and claims 1-35.                 | 1-20                  |
| A         | US 2007-0002764 A1 (PAPADIMITRIOU) 04 January 2007<br>See the Abstract and claims 1-22.                                                  | 1-20                  |



Further documents are listed in the continuation of Box C.



See patent family annex.

\* Special categories of cited documents:

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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

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"&amp;" document member of the same patent family

Date of the actual completion of the international search

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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

**PCT/US2012/022690**

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s)                                                            | Publication<br>date                                                |
|-------------------------------------------|---------------------|---------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| US 2008-0316938 A1                        | 25.12.2008          | CN 100512307 C<br>CN 1859418 A<br>EP 1993231 A1<br>EP 1993231 A4<br>WO 2007-101403 A1 | 08.07.2009<br>08.11.2006<br>19.11.2008<br>02.09.2009<br>13.09.2007 |
| US 7570587 B1                             | 04.08.2009          | None                                                                                  |                                                                    |
| US 2007-0086433 A1                        | 19.04.2007          | None                                                                                  |                                                                    |
| US 2007-0002764 A1                        | 04.01.2007          | EP 1739915 A1<br>EP 1739916 A1                                                        | 03.01.2007<br>03.01.2007                                           |