



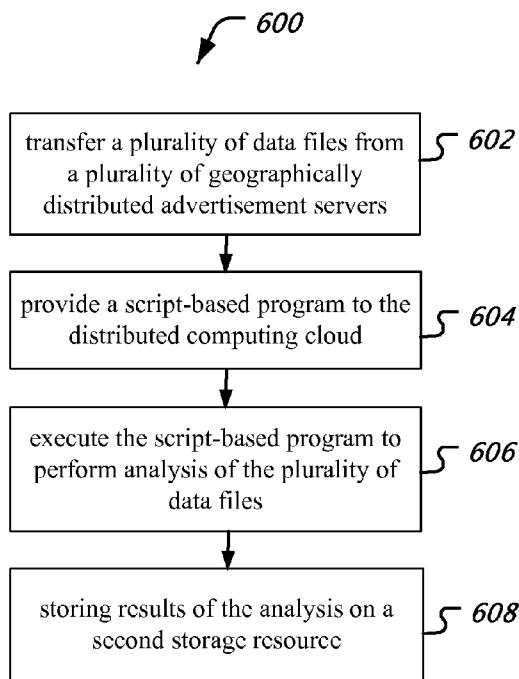
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- (71) Applicant: **BRIGHTROLL, INC.** [US/US]; 343 Sansome Street, Suite 600, San Francisco, CA 94104 (US).
- (72) Inventors: **PHAN, Giao, Huu**; 343 Sansome Street, Suite 600, San Francisco, CA 94104 (US). **HSIUNG, Daniel, Wei-Tze**; 343 Sansome Street, Suite 600, San Francisco, CA 94104 (US). **MELVEN, Ian, Graeme**; 343 Sansome

Street, Suite 600, San Francisco, CA 94104 (US). **HARDIE, Brian**; 343 Sansome Street, Suite 600, San Francisco, CA 94104 (US). **GUTIERREZ, Joseph**; 343 Sansome Street, Suite 600, San Francisco, CA 94104 (US). **BEDDOE, Marshall, Allen**; 343 Sansome Street, Suite 600, San Francisco, CA 94104 (US). **GUPTA, Pankaj**; 343 Sansome Street, Suite 600, San Francisco, CA 94104 (US). **DE SEABRA, Bernardo**; 343 Sansome Street, Suite 600, San Francisco, CA 94104 (US). **NELSON, Dru**; 343 Sansome Street, Suite 600, San Francisco, CA 94104 (US). **CHEUNG, Kenneth**; 343 Sansome Street, Suite 600, San Francisco, CA 94104 (US). **ENDO, Jason**; 343 Sansome Street, Suite 600, San Francisco, CA 94104 (US). **SADRIEH, Max**; 343 Sansome Street, Suite 600, San Francisco, CA 94104 (US). **RAVINDRAN, Rahul**; 343 Sansome Street, Suite 600, San Francisco, CA 94104 (US). **UNNAVA, Vikas**; 343 Sansome Street, Suite 600, San Francisco, CA 94104 (US). **PAISNER, Sharon**; 343 Sansome Street, Suite 600, San Francisco, CA 94104 (US).

[Continued on next page]

(54) Title: GEO, SEGMENT, UNIQUES DISTRIBUTED COMPUTING SYSTEM

(57) Abstract: A distributed computing system is configured to compute operational data for a video advertisement delivery system. Cloud-based resource are used to calculate operational parameters such as geographical data, unique advertisement delivery instances and segments of consumers that received the video advertisements.



**FIG. 6**

WO 2014/145117 A3



**KHARRAT, Dia**; 343 Sansome Street, Suite 600, San Francisco, CA 94104 (UG).

(74) **Agent: SATHE, Vinay**; Perkins Coie LLP, P.O. Box 1247, Seattle, WA 98111-1247 (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, 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, LT, 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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— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

**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))*

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**INTERNATIONAL SEARCH REPORT**

international application no.

PCT/US2014/029807

<p><b>A. CLASSIFICATION OF SUBJECT MATTER</b>                  IPC(8) - H04N 21/458 (2014.01)                  USPC - 725/34                  According to International Patent Classification (IPC) or to both national classification and IPC</p>																				
<p><b>B. FIELDS SEARCHED</b></p> <p>Minimum documentation searched (classification system followed by classification symbols)                  IPC(8) - G06F 17/30; H04N 21/23, 21/458 (2014.01)                  USPC - 707/771; 725/32, 34</p> <p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched                  CPC - G06F 17/30; H04N 21/23, 21/458 (2014.02)</p> <p>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)                  Google, Orbit, Google Patents</p>																				
<p><b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b></p> <table border="1"> <thead> <tr> <th>Category*</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>US 2013/0067512 A1 (DION et al) 14 March 2013 (14.03.2013) entire document</td> <td>1-8</td> </tr> <tr> <td>Y</td> <td>US 2005/0097088 A1 (BENNETT et al) 05 May 2005 (05.05.2005) entire document</td> <td>1-8</td> </tr> <tr> <td>Y</td> <td>US 2002/0083445 A1 (FLICKINGER et al) 27 June 2002 (27.06.2002) entire document</td> <td>3,4,7,8</td> </tr> <tr> <td>A</td> <td>US 2012/0136728 A1 (HSIUNG et al) 31 May 2012 (31.05.2012) entire document</td> <td>1-8</td> </tr> <tr> <td>A</td> <td>US 2012/0233157 A1 (MOHAJER) 13 September 2012 (13.09.2012) entire document</td> <td>1-8</td> </tr> </tbody> </table>			Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	Y	US 2013/0067512 A1 (DION et al) 14 March 2013 (14.03.2013) entire document	1-8	Y	US 2005/0097088 A1 (BENNETT et al) 05 May 2005 (05.05.2005) entire document	1-8	Y	US 2002/0083445 A1 (FLICKINGER et al) 27 June 2002 (27.06.2002) entire document	3,4,7,8	A	US 2012/0136728 A1 (HSIUNG et al) 31 May 2012 (31.05.2012) entire document	1-8	A	US 2012/0233157 A1 (MOHAJER) 13 September 2012 (13.09.2012) entire document	1-8
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<p><input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/></p>																				
<p>* Special categories of cited documents:</p> <table border="0"> <tr> <td> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> </td> <td> <p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"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</p> <p>"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</p> <p>"&amp;" document member of the same patent family</p> </td> </tr> </table>			<p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"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</p> <p>"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</p> <p>"&amp;" document member of the same patent family</p>																
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<p>Date of the actual completion of the international search</p> <p>24 September 2014</p>		<p>Date of mailing of the international search report</p> <p><b>17 OCT 2014</b></p>																		
<p>Name and mailing address of the ISA/US</p> <p>Mail Stop PCT, Attn: ISA/US, Commissioner for Patents                  P.O. Box 1450, Alexandria, Virginia 22313-1450                  Facsimile No. 571-273-3201</p>		<p>Authorized officer:</p> <p>Blaine R. Copenheaver</p> <p>PCT Helpdesk: 571-272-4300                  PCT OSP: 571-272-7774</p>																		

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2014/029807

**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

- 1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
- 2.  Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
  
- 3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

See Extra Sheet

- 1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
- 2.  As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
- 3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
- 4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  
1-8

**Remark on Protest**

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/US2014/029807

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claims 1-8, drawn to a method for computing operational parameters of a video advertisement delivery system.  
Group II, claims 9-17, drawn to a computer implemented method of operating a digital media advertisement system.

The inventions listed as Groups I-II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the special technical feature of the Group I invention: computing operational parameters of a video advertisement delivery system using distributed computing cloud as claimed therein is not present in the invention of Group II. The special technical feature of the Group II invention: receiving a plurality of files from a plurality of ad servers, each file including a plurality of line items, wherein each line item corresponds to an ad delivery instance as claimed therein is not present in the invention of Group I.

Groups I and II lack unity of invention because even though the inventions of these groups require the technical feature of an advertisement system comprising a cloud, this technical feature is not a special technical feature as it does not make a contribution over the prior art. Specifically, US 2012/0233157 A1 (MOHAJER) 13 September 2012 (13.09.2012) teaches an advertisement system comprising a cloud (cloud computing system comprising a server configured to search an advertisement database, Paras. 18-19).

Since none of the special technical features of the Group I or II inventions are found in more than one of the inventions, unity of invention is lacking.