(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 17 April 2008 (17.04.2008)

(10) International Publication Number WO 2008/045963 A3

(51) International Patent Classification: H04L 29/06 (2006.01) H04N 7/24 (2006.01)

(21) International Application Number:

PCT/US2007/080989

(22) International Filing Date: 10 October 2007 (10.10.2007)

(25) Filing Language:

English

(26) Publication Language:

English

(**30**) **Priority Data:** 11/548,273

10 October 2006 (10.10.2006)

(71) Applicant (for all designated States except US): ORTIVA WIRELESS, INC [US/US]; 4225 Executive Square, Suite 700, La Jolla, CA 92037 (US).

(72) Inventors; and

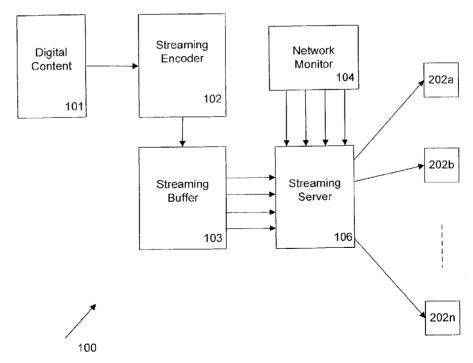
(75) Inventors/Applicants (for US only): DEY, Sujit [US/US]; C/o Ortiva Wireless, Inc., 4225 Executive Square, Suite 700, La Jolla, CA 92037 (US). WONG, Douglas [US/US]; C/o Ortiva Wireless Inc., 4225 Executive Square, Suite 700, La Jolla, CA 92037 (US). WEN, Jiangtao [US/US]; C/o Ortiva Wireless Inc., 4225 Executive Square, Suite 700, La Jolla, CA 92037 (US). TAKEBUCHI, Yusuke [JP/US]; C/o Ortiva Wireless Inc., 4255 Executive Square,

Suite 700, La Jolla, CA 92037 (US). **AROLE, Parag** [IN/US]; C/o Ortiva Wireless Inc., 4225 Executive Square, Suite 700, La Jolla, CA 92037 (US).

- (74) Agents: HALL, David, A. et al.; Townsend and Townsend and Crew LLP, Two Embarcadero Center, 8th Floor, San Francisco, CA 94111-3834 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, 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), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL,

[Continued on next page]

(54) Title: DIGITAL CONTENT BUFFER FOR ADAPTIVE STREAMING



(57) Abstract: Network transmission of live digital content from sources to receiving devices is enabled with real-time encoding, customization, and transmission of the live content according to user preferences, receiving device characteristics, network conditions and the like. Content, such as advertising customized to user profile and user location, may be conveniently inserted into the live content. Source-to-screen delay from sources to receiving devices is reduced and channel switching is supported.

PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- (88) Date of publication of the international search report: 31 July 2008

INTERNATIONAL SEARCH REPORT

International application No PCT/US2007/080989

A. CLASSIFICATION OF SUBJECT MATTER INV. H04L29/06									
	H04L29706 H04N7/24								
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 H04N									
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched									
became in the fields searched									
Electronic data base consulted during the international search (name of data base and, where practical, search terms used)									
EPO-In	ternal, COMPENDEX, INSPEC, IBM-TDB,	WPI Data	·						
			•						
C. DOCUM	ENTS CONSIDERED TO BE RELEVANT								
Category*	Citation of document, with indication, where appropriate, of the re	levant passages	Relevant to claim No.						
									
χ .	US 2004/064573 A1 (LEANING ANTHO	NY R [GB]	1-87						
	ET AL) 1 April 2004 (2004-04-01)	·							
•	the whole document		'						
Α	WO 03/084172 A (BRITISH TELECOMM	[GR]	1-87						
	NILSSON MICHAEL ERLING [GB]; JEB		1 0,						
	RALPH) 9 October 2003 (2003-10-09)								
	figures 1,2,6a,6b,6c								
	page 4, line 20 - page 9, line 6 page 9, line 27 - page 13, line 2	22							
	page 16, line 25 - page 27, line								
			•						
<i>:</i>									
			·						
Furti	ner documents are listed in the continuation of Box C.	X See patent family annex.	•						
* Special c	alegories of cited documents:	"T" later document published after the inter							
	A document defining the general state of the art which is not								
"E" rearlier o	"E" earlier document but published on or after the international "Y" document of particular relevance the element invention								
"L" document which may throw doubts on priority claim(s) or involve an inventive step when the document is taken alone									
which is cited to establish the publication date of another citation or other special reason (as specified) "Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the									
	O document referring to an oral disclosure, use, exhibition or other means carriot be considered to involve an inventive step when the document is combined with one or more other such document other means.								
"P" docume	"P" document published prior to the international filing date but in the art.								
Date of the actual completion of the international search Date of mailing of the international search report									
1	10 April 2008 18/04/2008								
Name and mailing address of the ISA/ Authorized officer									
	European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk								
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016		Riegler, Jörg							

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2007/080989

US 2004064573 A1 01-04-2004 CN 1481643 A 10-03-2004	Patent document cited in search report		Publication date		Patent family member(s)	Publication date
CA 2479231 A1 09-10-2003 CN 1643875 A 20-07-2005 EP 1359722 A1 05-11-2003 JP 2005522102 T 21-07-2005	US 2004064573	A1	01-04-2004	CN	1481643 A	10-03-2004
	WO 03084172	A	09-10-2003	CÁ CN EP JP	2479231 A1 1643875 A 1359722 A1 2005522102 T	09-10-2003 20-07-2005 05-11-2003 21-07-2005