



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/129,756	05/17/2011	Kunihiro Taniguchi	J-11-0248	1971
71799 7590 04/08/2015 Mr. Ryoichi Harada 2100 Pennsylvania Ave., NW SUITE 560 Washington, DC 20037-3213			EXAMINER PASCUAL PEGUERO, NATALI	
			ART UNIT 2413	PAPER NUMBER
			NOTIFICATION DATE 04/08/2015	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ryoichi.harada@necam.com
Satoko.Kajima@necam.com
necipca@necam.com

Office Action Summary	Application No. 13/129,756	Applicant(s) TANIGUCHI ET AL.	
	Examiner NATALI N. PASCUAL PEGUERO	Art Unit 2413	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 26 November 2014.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☒ Claim(s) 1,2,4-6,8-19,21 and 24-41 is/are pending in the application.
5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☒ Claim(s) 1,2,4-6,8-19,21 and 24-41 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10) ☐ The specification is objected to by the Examiner.

11) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a) ☐ All b) ☐ Some** c) ☐ None of the:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)
Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

4) ☐ Other: _____.

DETAILED ACTION

Notice of Pre-AIA or AIA Status

1. The present application is being examined under the pre-AIA first to invent provisions.

Response to Arguments

2. Applicant's arguments filed 11/26/2014 have been fully considered but they are not persuasive.

With respect to claim 1:

The applicant presented arguments on pages 32 – 37 that the references fail to show certain features of applicant's invention, for example, "selected sub content specification information transmission unit is configured to transmit, when the connection control system executes a process for establishing the connection, via the connection control system to the user equipment which has transmitted the content delivery request, play-list information which is information containing the main content identification information contained in the content delivery request and the selected sub content specification information, and is information containing information indicating a sequence in which the main content identified by the main content identification information and the sub content specified by the selected sub content specification information are output".

The examiner respectfully disagrees with the arguments presented by the applicant. AARTS teaches selected sub content specification information transmission unit is configured to transmit (**Fig. 3, step 34 shows that the advertisement service**

transmits the advertisement information to the user device; Page 2, Paragraph 0023), when the connection control system executes a process for establishing the connection **(the authentication service interpreted as “the connection control system” is configured to authenticate the user devices verifying the information contained in the authentication request (Fig. 1, element 17) or confirming the identity of the user devices; Page 2, Paragraph 0021),** via the connection control system **(an authentication service (Fig. 1, element 0016); Page 2, Paragraph 0021)** to the user equipment which has transmitted the content delivery request **(Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service; Page 2, Paragraph 0022).** Masahito teaches play-list information **(the playlist; Page 37, Paragraph 0136)** which is information containing the main content identification information contained in the content delivery request and the selected sub content specification information **(playlist generating unit 13b extracts the CM (Commercial Message) data included in the contents to be reproduced from the advertisement storage unit frame 16 from content ID with a distribution request based on the user profile information; Page 36, Paragraph 0135** *Note: the examiner interpreted the CM data as the sub content information, and the content ID as the main content identification information*), and is information containing information indicating a sequence in which the main content identified by the main content identification information and the sub content specified by the selected sub content specification information are output **(extracts the CM data included in the contents from the advertisement frame memory unit 16 and delivers the play list**

generation unit 13b, (M407); Page 35, Paragraph 0131 ... the playlist to perform processing such as, play, and transmits it to the viewer's terminal; Page 37, Paragraph 0136).

It has been shown that the teachings in the references clearly address the above limitation of claim 1, and therefore the rejection is maintained.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies **(i.e., the process for establishing a connection and the process for transmitting the play-list information can thus advantageously be executed concurrently as described on page 33 of applicant's remarks)** are not recited in the rejected claim(s).

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

With respect to claims 2, 4-6, 8-10, and 24:

The applicant's arguments have been fully considered but they are not persuasive. The teachings in the references clearly address the limitations in claim 1, and therefore the rejections with respect to claims 2, 4-6, 8-10, and 24 are maintained.

With respect to claims 15, 19, 21, 25, 27-29, 37, and 39-41:

The applicant's arguments have been fully considered but they are not persuasive. The teachings in the references clearly address the limitations in claim 1, and therefore the rejections with respect to claims 15, 19, 21, 25, 27-29, 37, and 39-41 are maintained.

With respect to claims 16-18 and 30-36:

The applicant's arguments have been fully considered but they are not persuasive. The teachings in the references clearly address the limitations in claims 15 and 29, and therefore the rejections with respect to claims 16-18 and 30-36 are maintained.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory double patenting rejection is appropriate where the claims at issue are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the reference application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of

activities undertaken within the scope of a joint research agreement. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The USPTO internet Web site contains terminal disclaimer forms which may be used. Please visit <http://www.uspto.gov/forms/>. The filing date of the application will determine what form should be used. A web-based eTerminal Disclaimer may be filled out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-processed and approved immediately upon submission. For more information about eTerminal Disclaimers, refer to <http://www.uspto.gov/patents/process/file/efs/guidance/eTD-info-I.jsp>.

3. Claims 1, 5, 6, 8, 9, 11, 14, 19, 21 and 24 - 26 are provisionally rejected on the ground of nonstatutory double patenting over claims 1, 3, 7, 11 and 19, 20, 23 and 24 of copending Application No. 13/063,122. This is a provisional double patenting rejection because the patentably indistinct claims have not in fact been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows:

Although the claims at issue are not identical, they are not patentably distinct from each other because *claims 1, 5, 6, 8, 9, 11, 14, 19, 21 and 24 - 26 of the instant application merely broaden the scope of the claims 1, 3, 7, 11 and 19, 20, 23 and 24 of*

U.S. Application No. 13/063,122. It has been held that the omission of an element and its function is an obvious expedient if the remaining elements perform the same function as before (See MPEP §804.II.B.1 and §2144.04 IIA).

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Interpretation - 35 USC § 112

The following is a quotation of 35 U.S.C. 112(f):

(f) Element in Claim for a Combination. – An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

The following is a quotation of pre-AIA 35 U.S.C. 112, sixth paragraph:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

Use of the word “means” (or “step for”) in a claim with functional language creates a rebuttable presumption that the claim element is to be treated in accordance with 35 U.S.C. § 112(f) (pre-AIA 35 U.S.C. 112, sixth paragraph). The presumption that § 112(f) (pre-AIA § 112, sixth paragraph) is invoked is rebutted when the function is recited with sufficient structure, material, or acts within the claim itself to entirely perform the recited function.

Absence of the word “means” (or “step for”) in a claim creates a rebuttable presumption that the claim element is not to be treated in accordance with 35 U.S.C. §

112(f) (pre-AIA 35 U.S.C. 112, sixth paragraph). The presumption that § 112(f) (pre-AIA § 112, sixth paragraph) is not invoked is rebutted when the claim element recites function but fails to recite sufficiently definite structure, material or acts to perform that function.

Claim elements in this application that use the word “means” (or “step for”) are presumed to invoke § 112(f) except as otherwise indicated in an Office action. Similarly, claim elements that do not use the word “means” (or “step for”) are presumed not to invoke § 112(f) except as otherwise indicated in an Office action.

The limitations of claims **25 - 28** that recite(s) “content storage means for storing sub content data representing sub content and main content data representing main content; delivery request reception means for receiving, a content delivery request transmitted by the user equipment and containing main content identification information for identifying the main content; sub content selection means for selecting the stored sub content data based on selection information containing attribute information representing an attribute of the sub content; and selected sub content specification information transmission means for transmitting selected sub content specification information for specifying the selected sub content data via the connection control system to the user equipment which has transmitted the content delivery request, wherein the selected sub content specification information transmission means is configured to transmit, when the connection control system executes a process for establishing the connection, via the connection control system to the user equipment which has transmitted the content delivery request, play-list information which is

information containing the main content identification information contained in the content delivery request and the selected sub content specification information, and is information containing information indicating a sequence in which the main content identified by the main content identification information and the sub content specified by the selected sub content specification information are output; the media functions part comprising content storage means for storing sub content data representing sub content and main content data representing main content, the service control functions part comprising: delivery request reception means for receiving a content delivery request containing main content identification information for identifying the main content and transmitted by the user equipment, via the core IMS part; and sub content selection means for selecting the stored sub content data based on selection information containing attribute information representing an attribute of the sub content and preliminarily stored by the user profile server functions part, the service control functions part or the connection control system” without reciting sufficient structure to achieve the function. Furthermore, the non-structural term is not preceded by a structural modifier.

Since this claim limitation invokes 35 U.S.C. 112(f) or 35 U.S.C. 112 (pre-AIA), sixth paragraph, claims **25 - 28** are interpreted to cover the corresponding structure described in the specification that achieves the claimed functions, and equivalents thereof.

A review of the specification shows that the following appears to be the corresponding structure described in the specification for the 35 U.S.C. 112(f) or

35 U.S.C. 112 (pre-AIA), sixth paragraph limitation: Page 15, Paragraphs 0250 - 0253 of the specification discloses that “The content delivery system 1 further includes a content storage (content storage means) RC, delivery request receiver (delivery request reception means) 101, an advertisement content selector (advertisement content selection means) 102, and a selected advertisement content specification information transmitter (selected advertisement content specification information transmission means) 103. The content storage RC stores advertisement content data representing advertisement content and main content data representing main content. The delivery request receiver 101 receives, via the connection control system 3, a content delivery request containing main content identification information for identifying main content and transmitted by the user equipment 2. The advertisement content selector 102 selects the advertisement content data stored in the content storage RC based on advertisement selection information containing advertisement attribute information representing an attribute of the advertisement content. The selected advertisement content specification information transmitter 103 transmits selected advertisement content specification information for specifying advertisement content data selected by the advertisement content selector 102 via the connection control system 3 to the user equipment 2 which has transmitted the content delivery request”. (See also Paragraphs 0049, 0254 and 0026).

If applicant wishes to provide further explanation or dispute the examiner’s interpretation of the corresponding structure, applicant must identify the corresponding

structure with reference to the specification by page and line number, and to the drawing, if any, by reference characters in response to this Office action.

If applicant does **not** wish to have the claim limitation treated under 35 U.S.C. 112(f) or 35 U.S.C. 112 (pre-AIA), sixth paragraph, applicant may amend the claim so that it will clearly not invoke 35 U.S.C. 112(f) or 35 U.S.C. 112 (pre-AIA), sixth paragraph, or present a sufficient showing that the claim recites sufficient structure, material, or acts for performing the claimed function to preclude application of 35 U.S.C. 112(f) or 35 U.S.C. 112 (pre-AIA), sixth paragraph.

For more information, see MPEP § 2173 et seq. and *Supplementary Examination Guidelines for Determining Compliance with 35 U.S.C. § 112 and for Treatment of Related Issues in Patent Applications*, 76 FR 7162, 7167 (Feb. 9, 2011).

Claim Rejections - 35 USC § 103

4. The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 1, 2, 4 - 6, 8 - 10, 15 - 19, 21, 24, 25, 27 - 37 and 39 – 41 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over AARTS (Pub # US 2008/0256216 A1) in view of Masahito et al. (JP 2008022298 hereinafter Masahito, disclosed by the Applicant's IDS).

Regarding claim 1, AARTS teaches a content delivery system (**a method of supplying advertising content; Page 1, Paragraph 0001**) comprising an application server system (**an advertisement service (Fig. 1, element 13); Page 2, Paragraph 0021**) and a connection control system (**an authentication service (Fig. 1, element 0016); Page 2, Paragraph 0021**), the connection control system being configured to receive equipment specification information transmitted by user equipment and establish connection between the application server system and this user equipment based on the received equipment specification information (**the authentication service interpreted as “the connection control system” is configured to receive information corresponding to identified users in order to permit communication between the advertisement service and the user device (Fig. 1, element 10); Page 2, Paragraph 0021**), the application server system (**the advertisement service interpreted as “the application service system”; Page 2, Paragraph 0021**) comprising: a content storage unit for storing sub content data representing sub content and main content data representing main content (**the advertisement service stores advertisement information in store (Fig. 1, element 13a), and may also track advertisement data sent to a particular user or device; Page 2, Paragraph 0021**); a delivery request reception unit for receiving (**the advertisement device is operable to receive a data request (Fig. 1, element 14); Page 2, Paragraph 0021**) a content delivery request transmitted by the user equipment and containing main content identification information for identifying the main content (**the advertisement device is operable to receive a data request from the user device, said data request is**

transmitted in accordance with the metadata received in the content information;

Page 2, Paragraphs 0021 - 0022); a sub content selection unit for selecting the stored sub content data based on selection information containing attribute information representing an attribute of the sub content **(the user profile information may simply categorize the user in accordance with demographic terms, such as age, gender or geographical location, or may be a more detailed profile based on the user's recorded browsing habits, purchasing patterns or indeed on information voluntarily submitted by a user; Page 1, Paragraph 0002 ... an advertisement server (Fig. 1, element 13) interpreted as “the application server system” is configured to retrieve advertisement information in accordance with the user information and transmit it to the user device ; Page 1, Paragraph 0013);** and a selected sub content specification information transmission unit for transmitting selected sub content specification information for specifying the selected sub content data **(Fig. 3, step 34 shows that the advertisement service transmits the advertisement information to the user device; Page 2, Paragraph 0023)** via the connection control system **(an authentication service (Fig. 1, element 0016); Page 2, Paragraph 0021)** to the user equipment which has transmitted the content delivery request **(Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service; Page 2, Paragraph 0022),** wherein the selected sub content specification information transmission unit is configured to transmit **(Fig. 3, step 34 shows that the advertisement service transmits the advertisement information to the user device; Page 2, Paragraph 0023),** when the connection control system executes a

process for establishing the connection **(the authentication service interpreted as “the connection control system” is configured to authenticate the user devices verifying the information contained in the authentication request (Fig. 1, element 17) or confirming the identity of the user devices; Page 2, Paragraph 0021)**, via the connection control system **(an authentication service (Fig. 1, element 0016); Page 2, Paragraph 0021)** to the user equipment which has transmitted the content delivery request **(Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service; Page 2, Paragraph 0022)**, wherein the user equipment comprises a content outputting unit for receiving main content data and sub content data transmitted by the application server system and outputting **(Fig. 2, step 23 shows that the user device receives advertisement information from the advertisement service, and at step 24 generates an output; Page 2, Paragraph 0022)**, based on the received main content data and sub content data **(in accordance with the newly received content information interpreted as “the main content data” and advertisement information interpreted as “the sub content data”; Page 2, Paragraph 0022)**, viewing content in which sub content represented by the sub content data is inserted in main content represented by the main content data **(the advertisement service generates advertisement information interpreted as “the sub content” in accordance with the user's desired content transmitted by the authentication service; Page 2, Paragraph 0023)**.

However, AARTS does not specifically disclose play-list information which is information containing the main content identification information contained in the

content delivery request and the selected sub content specification information, and is information containing information indicating a sequence in which the main content identified by the main content identification information and the sub content specified by the selected sub content specification information are output.

In an analogous art, Masahito teaches play-list information **(the playlist; Page 37, Paragraph 0136)** which is information containing the main content identification information contained in the content delivery request and the selected sub content specification information **(Playlist generating unit 13b extracts the CM (Commercial Message) data included in the contents to be reproduced from the advertisement storage unit frame 16 from content ID with a distribution request based on the user profile information; Page 36, Paragraph 0135 *Note: the examiner interpreted the CM data as the sub content information, and the content ID as the main content identification information*)**, and is information containing information indicating a sequence in which the main content identified by the main content identification information and the sub content specified by the selected sub content specification information are output **(extracts the CM data included in the contents from the advertisement frame memory unit 16 and delivers the play list generation unit 13b, (M407); Page 35, Paragraph 0131 ... the playlist to perform processing such as, play, and transmits it to the viewer's terminal; Page 37, Paragraph 0136).**

Therefore, it would have been obvious to one of ordinary skills in the art at the time the invention was made to combine the technique of Masahito with AARTS to

deliver user-friendly advertisements in accordance with the video content (**Masahito: Page 1, Paragraph 0001**).

Regarding claim 2, AARTS discloses wherein: the user equipment comprises **(the user device interpreted as “user equipment”; Page 2, Paragraph 0021)**: a selected sub content specification information reception unit for receiving the selected sub content specification information transmitted by the application server system **(Fig. 2, step 23 shows that the user device receives advertisement information from the advertisement service; Page 2, Paragraph 0022)**; and a content viewing request transmission unit for transmitting **(Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service; Page 2, Paragraph 0022)**, to the application server system **(the advertisement service interpreted as “the application service system”; Page 2, Paragraph 0021)**, a main content viewing request containing the main content identification information and an sub content viewing request containing the received selected sub content specification information when connection with the application server system is established by the connection control system **(Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service containing content data to be used in providing an output to the user and metadata to enable appropriate advertisement information; Page 2, Paragraph 0022)**, and the application server system comprises a content delivering unit for receiving the main content viewing request transmitted by the user equipment and transmitting main content data identified by the main content

identification information contained in the received main content viewing request to the user equipment **(the advertisement service receives a data request in the store (Fig. 1, element 13a) from the user device in accordance to the user's desired content transmitted by the authentication service, and at step 34 transmits the advertisement information to the user device 10; Page 2, Paragraphs 0021 - 0023),** and for receiving the sub content viewing request transmitted by the user equipment and transmitting sub content data specified by the selected sub content specification information contained in the received sub content viewing request to the user equipment **(Fig. 3, step 30 shows that the advertisement service receives the data request from the user device, and at step 34 transmits the advertisement information to the user device; Page 2, Paragraph 0023).**

Regarding claim 4, AARTS teaches wherein: the content viewing request transmission unit is configured to transmit **(Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service; Page 2, Paragraph 0022)** the main content viewing request and the sub content viewing request **(Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service containing content data to be used in providing an output to the user and metadata to enable appropriate advertisement information; Page 2, Paragraph 0022)** to the application server system **(the advertisement service interpreted as “the application service system”; Page 2, Paragraph 0021).**

However, AARTS does not specifically disclose the selected sub content specification information reception unit is configured to receive the play-list information

transmitted by the application server system; based on the received play-list information.

In an analogous art, Masahito teaches the selected sub content specification information reception unit is configured to receive the play-list information transmitted by the application server system **(determining the playlist to perform processing such as replacing the CM, to play, and transmits it to the viewer terminal 5 (M409); Page 36, Paragraph 0134)**; based on the received play-list information **(Playlist generating unit 13b extracts the CM (Commercial Message) data included in the contents to be reproduced from the advertisement storage unit frame 16 from content ID with a distribution request based on the user profile information; Page 36, Paragraph 0135 ... extracts the CM data included in the contents from the advertisement frame memory unit 16 and delivers the play list generation unit 13b, (M407); Page 35, Paragraph 0131 ... The video distribution server 13, extracts the advertisement frame associated to content ID with a distribution request from the advertisement frame memory unit 16, and checks whether the advertisement frame according to a user attribute is set up in the placement decision service in (S103); Page 36, Paragraph 0132).**

Therefore, it would have been obvious to one of ordinary skills in the art at the time the invention was made to combine the technique of Masahito with AARTS to deliver user-friendly advertisements in accordance with the video content **(Masahito: Page 1, Paragraph 0001).**

Regarding claim 5, AARTS discloses wherein: the content storage unit is configured to store the sub content data in association with attribute information representing an attribute of sub content represented by the sub content data **(the content service (Fig. 1, element 11) interpreted as “the content storage unit” is configured to store the content information comprising content data to be used in providing an output to the user, and metadata interpreted as to enable appropriate advertisement information to be obtained; Page 2, Paragraph 0022);** the selection information contains user basic information that is information for specifying the attribute information and is information associated with user identification information for identifying a user of the user equipment **(in the system of Fig. 5, the user device receives content data and metadata, but in this example the metadata comprises a pointer to authentications service, and the fig. 4, step 41 shows that the authentication service identifies the user device from the information transmitted; Page 2, Paragraph 0024 and 0029);** and the sub content selection unit is configured to select sub content data stored in association with the attribute information specified by the user basic information **(the user profile information may simply categorize the user in accordance with demographic terms, such as age, gender or geographical location, or may be a more detailed profile based on the user's recorded browsing habits, purchasing patterns or indeed on information voluntarily submitted by a user; Page 1, Paragraph 0002 ... an advertisement server (Fig. 1, element 13) interpreted as “the application server system” is configured to retrieve advertisement information in accordance with the user**

information and transmit it to the user device ; Page 1, Paragraph 0013) associated with the user identification information for identifying the user **(at step 33, the advertisement service generates advertisement information in accordance with the received authentication information used for identifying the user device; Page 2, Paragraph 0023)** of the user equipment which has transmitted the content delivery request **(Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service; Page 2, Paragraph 0022).**

Regarding claim 6, AARTS discloses wherein: the content storage unit is configured to store the sub content data in association with attribute information representing an attribute of the sub content represented by the sub content data **(the content service (Fig. 1, element 11) interpreted as “the content storage unit” is configured to store the content information comprising content data to be used in providing an output to the user, and metadata to enable appropriate advertisement information to be obtained; Page 2, Paragraph 0022)**; the selection information contains content basic information that is information for specifying the attribute information and is information associated with the main content identification information for identifying the main content **(the content information comprising content data to be used in providing an output to the user, and metadata to enable appropriate advertisement information to be obtained; Page 2, Paragraph 0022)**; and the sub content selection unit is configured to select sub content data stored in association with the attribute information specified by the content basic information associated with the main content identification information **(the authentication service**

transmits general information thus allowing an advertisement to be personalized to the user, such as age, gender, geographic information or any other information as appropriate. At step 33, the advertisement service generates advertisement information in accordance with the received authentication information; Page 2, Paragraph 0023) contained in the received content delivery request (Fig. 3, step 30 shows that the advertisement service receives the data request from the user device; Page 2, Paragraph 0023).

Regarding claim 8, AARTS discloses wherein the connection control system is configured to establish the connection by exchanging a predetermined connection establishment message with each of the user equipment and the application server system **(the authentication service interpreted as “the connection control system” is configured to authenticate the user devices verifying the information contained in the authentication request (Fig. 1, element 17) or confirming the identity of the user devices; Page 2, Paragraph 0021);** and the selected sub content specification information transmission unit is configured to transmit the selected sub content specification information to the user equipment **(Fig. 3, step 34 shows that the advertisement service transmits the advertisement information to the user device; Page 2, Paragraph 0023)** via the connection control system **(the authentication service interpreted as “the connection control system”; Page 2, Paragraph 0021)** by incorporating the selected sub content specification information in the connection establishment message **(Fig. 3, step 33 shows that the authentication service generates advertisement information in accordance with the received**

**authentication information used for establishing connection with the user device;
Page 2, Paragraph 0023).**

Regarding claim 9, AARTS discloses wherein: the application server system comprises a service control server and a media server **(an advertisement server (Fig. 1, element 13) interpreted as “the application server system” is configured to retrieve advertisement information in accordance with the user information and transmit it to the user device ; Page 1, Paragraph 0013);** and the service control server comprises the delivery request reception unit **(Fig. 3, step 34 shows that the advertisement service transmits the advertisement information to the user device; Page 2, Paragraph 0023),** the sub content selection unit **(the advertisement service generates advertisement information interpreted as “the sub content” in accordance with the user's desired content transmitted by the authentication service; Page 2, Paragraph 0023),** and the selected sub content specification information transmission unit **(Fig. 3, step 34 shows that the advertisement service transmits the advertisement information to the user device; Page 2, Paragraph 0023).**

Regarding claim 10, AARTS discloses wherein: The application server system comprises a service control server and a media server **(an advertisement server (Fig. 1, element 13) interpreted as “the application server system” is configured to retrieve advertisement information in accordance with the user information and transmit it to the user device ; Page 1, Paragraph 0013);** the service control server comprises the delivery request reception unit **(the advertisement device is operable**

to receive a data request (Fig. 1, element 14); Page 2, Paragraph 0021); the media server comprises the content storage unit **(the advertisement service stores advertisement information in store (Fig. 1, element 13a), the sub content selection unit (Fig. 3, step 33 shows that the authentication service generates advertisement information in accordance with the received authentication information wherein an advertisement can be personalized to the user, such as age, gender, geographic information or any other information as appropriate; Page 2, Paragraph 0023), and the selected sub content specification information transmission unit (Fig. 3, step 34 shows that the advertisement service transmits the advertisement information to the user device; Page 2, Paragraph 0023); the service control server further comprises an selection information transmission unit for transmitting the selection information to the media server (Fig. 3, step 34 shows that the advertisement service transmits the advertisement information; Page 2, Paragraph 0023) via the connection control system (the authentication service interpreted as “the connection control system”; Page 2, Paragraph 0021); the media server further comprises an selection information reception unit for receiving the selection information transmitted by the service control server (Fig. 2, step 23 shows that the user device receives advertisement information from the advertisement service; Page 2, Paragraph 0022); and the sub content selection unit is configured to select the sub content data based on the received selection information (the advertisement service generates advertisement information interpreted as “the**

sub content” in accordance with the user's desired content transmitted by the authentication service; Page 2, Paragraph 0023).

Regarding claim 15, the claim is interpreted and rejected for the same reason as set forth in claim 1.

Regarding claim 16, the claim is interpreted and rejected for the same reason as set forth in claim 2.

Regarding claim 17, AARTS discloses receiving the main content data and the sub content data transmitted by the application server system (**Fig. 2, step 23 shows that the user device receives advertisement information from the advertisement service; Page 2, Paragraph 0022**), and outputting (**Fig. 2, step 24 generates an output; Page 2, Paragraph 0022**), based on the received main content data and sub content data (**in accordance with the newly received content information interpreted as “the main content data” and advertisement information interpreted as “the sub content data”; Page 2, Paragraph 0022**), viewing content in which sub content represented by the sub content data is inserted in main content represented by the main content data, by the user equipment (**the advertisement service generates advertisement information interpreted as “the sub content” in accordance with the user's desired content transmitted by the authentication service; Page 2, Paragraph 0023**).

Regarding claim 18, the claim is interpreted and rejected for the same reason as set forth in claim 4.

Regarding claim 19, AARTS teaches a server control server **(an advertisement service (Fig. 1, element 13); Page 2, Paragraph 0021)** comprising: a delivery request reception unit for receiving a content delivery request containing main content identification information for identifying main content **(the advertisement device is operable to receive a data request (Fig. 1, element 14) from the user device, said data request is transmitted in accordance with the metadata received in the content information; Page 2, Paragraphs 0021 - 0022)** and transmitted by a user equipment **(Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service; Page 2, Paragraph 0022)** via a connection control system establishing connection between a media server and the user equipment **(Fig. 3, step 31 shows that the advertisement service transmits an authentication request to the authentication server in order to establish connection with the advertisement service; Page 2, Paragraph 0023)**; an sub content selection unit for selecting sub content data preliminarily stored in a storing device **(the advertisement service generates advertisement information interpreted as “the sub content” in accordance with the user's desired content transmitted by the authentication service; Page 2, Paragraph 0023)**, based on selection information containing attribute information representing an attribute of sub content **(the content information comprising content data to be used in providing an output to the user, and metadata to enable appropriate advertisement information to be obtained; Page 2, Paragraph 0022)**; and a selected sub content specification information transmission unit for transmitting selected sub content specification information specifying the

selected content data via the connection control system to the user equipment which has transmitted the content delivery request (**Fig. 3, step 34 shows that the advertisement service transmits the advertisement information to the user device; Page 2, Paragraph 0023**), wherein the selected sub content specification information transmission unit is configured to transmit (**Fig. 3, step 34 shows that the advertisement service transmits the advertisement information to the user device; Page 2, Paragraph 0023**), when the connection control system executes a process for establishing the connection (**the authentication service interpreted as “the connection control system” is configured to authenticate the user devices verifying the information contained in the authentication request (Fig. 1, element 17) or confirming the identity of the user devices; Page 2, Paragraph 0021**), via the connection control system (**an authentication service (Fig. 1, element 0016); Page 2, Paragraph 0021**) to the user equipment which has transmitted the content delivery request (**Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service; Page 2, Paragraph 0022**), wherein the user equipment comprises a content outputting unit for receiving main content data and sub content data transmitted by the application server system and outputting (**Fig. 2, step 23 shows that the user device receives advertisement information from the advertisement service, and at step 24 generates an output; Page 2, Paragraph 0022**), based on the received main content data and sub content data (**in accordance with the newly received content information interpreted as “the main content data” and advertisement information interpreted as “the sub content data”; Page 2,**

Paragraph 0022), viewing content in which sub content represented by the sub content data is inserted in main content represented by the main content data **(the advertisement service generates advertisement information interpreted as “the sub content” in accordance with the user's desired content transmitted by the authentication service; Page 2, Paragraph 0023).**

However, AARTS does not specifically disclose play-list information that is information containing the main content identification information contained in the content delivery request and the selected sub content specification information, and is information containing information indicating a sequence in which the main content identified by the main content identification information and the sub content specified by the selected sub content specification information are output.

In an analogous art, Masahito teaches play-list information that is information containing the main content identification information contained in the content delivery request and the selected sub content specification information **(playlist generating unit 13b extracts the CM (Commercial Message) data included in the contents to be reproduced from the advertisement storage unit frame 16 from content ID with a distribution request based on the user profile information; Page 36, Paragraph 0135 Note: the examiner interpreted the CM data as the sub content information, and the content ID as the main content identification information)**, and is information containing information indicating a sequence in which the main content identified by the main content identification information and the sub content specified by the selected sub content specification information are output **(extracts the CM data**

included in the contents from the advertisement frame memory unit 16 and delivers the play list generation unit 13b, (M407); Page 35, Paragraph 0131 ... the playlist to perform processing such as, play, and transmits it to the viewer's terminal; Page 37, Paragraph 0136).

Therefore, it would have been obvious to one of ordinary skills in the art at the time the invention was made to combine the technique of Masahito with AARTS to deliver user-friendly advertisements in accordance with the video content **(Masahito: Page 1, Paragraph 0001).**

Regarding claim 21, AARTS teaches a user equipment comprising **(the user device interpreted as “user equipment”; Page 2, Paragraph 0021):** a selected sub content specification information reception unit for receiving selected sub content specification information **(Fig. 2, step 23 shows that the user device receives advertisement information from the advertisement service; Page 2, Paragraph 0022)** selected based on selection information containing attribute information representing an attribute of sub content and which is information for specifying selected sub content data and transmitted by an application server system **(the user profile information may simply categorize the user in accordance with demographic terms, such as age, gender or geographical location, or may be a more detailed profile based on the user's recorded browsing habits, purchasing patterns or indeed on information voluntarily submitted by a user; Page 1, Paragraph 0002 ... an advertisement server (Fig. 1, element 13) interpreted as “the application server system” is configured to retrieve advertisement information in accordance with**

the user information and transmit it to the user device ; Page 1, Paragraph 0013), via a connection control system establishing connection between the application server system and the user equipment (**Fig. 3, step 31 shows that the advertisement service transmits an authentication request to the authentication server in order to establish connection with the advertisement service; Page 2, Paragraph 0023);** wherein the selected sub content specification information reception unit (**Fig. 2, step 23 shows that the user device receives advertisement information from the advertisement service; Page 2, Paragraph 0022)** is configured to, when the connection control system executes a process for establishing the connection (**the authentication service interpreted as “the connection control system” is configured to authenticate the user devices verifying the information contained in the authentication request (Fig. 1, element 17) or confirming the identity of the user devices; Page 2, Paragraph 0021),** via the connection control system (**an authentication service (Fig. 1, element 0016); Page 2, Paragraph 0021)** to the user equipment which has transmitted the content delivery request (**Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service; Page 2, Paragraph 0022);** a content viewing request transmission unit for transmitting (**Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service; Page 2, Paragraph 0022),** to the application server system (**the advertisement service interpreted as “the application service system”; Page 2, Paragraph 0021),** a main content viewing request containing main content identification information for identifying main content and an sub content viewing request containing

the received selected sub content specification information when connection with the application server system is established by the connection control system (**Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service containing content data to be used in providing an output to the user and metadata to enable appropriate advertisement information; Page 2, Paragraph 0022**), wherein the content viewing request transmission unit (**Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service; Page 2, Paragraph 0022**), to the media functions part (**the advertisement service interpreted as “the media functions part”; Page 2, Paragraph 0021**) is configured to transmit the main content viewing request and the sub content viewing request to the application server system (**Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service containing content data to be used in providing an output to the user and metadata to enable appropriate advertisement information; Page 2, Paragraph 0022**), a content outputting unit for receiving main content data and sub content data transmitted by the application server system and outputting (**Fig. 2, step 23 shows that the user device receives advertisement information from the advertisement service, and at step 24 generates an output; Page 2, Paragraph 0022**), based on the received main content data and sub content data (**in accordance with the newly received content information interpreted as “the main content data” and advertisement information interpreted as “the sub content data”; Page 2, Paragraph 0022**), viewing content in which sub content represented by the sub content data is inserted in main content

represented by the main content data **(the advertisement service generates advertisement information interpreted as “the sub content” in accordance with the user’s desired content transmitted by the authentication service; Page 2, Paragraph 0023).**

However, AARTS does not specifically disclose receive the play-list information transmitted by an application server system, wherein the play-list information that is information containing the main content identification information contained in the content delivery request and the selected sub content specification information, and is information containing information indicating a sequence in which the main content identified by the main content identification information and the sub content specified by the selected sub content specification information are output; based on the received play-list information.

In an analogous art, Masahito teaches receive the play-list information transmitted by an application server system **(determining the playlist to perform processing such as replacing the CM, to play, and transmits it to the viewer terminal 5 (M409); Page 36, Paragraph 0134)**, wherein the play-list information that is information containing the main content identification information contained in the content delivery request and the selected sub content specification information, and is information containing information indicating a sequence in which the main content identified by the main content identification information and the sub content specified by the selected sub content specification information are output **(extracts the CM data included in the contents from the advertisement frame memory unit 16 and**

delivers the play list generation unit 13b, (M407); Page 35, Paragraph 0131 ... the playlist to perform processing such as, play, and transmits it to the viewer's terminal; Page 37, Paragraph 0136); based on the received play-list information (Playlist generating unit 13b extracts the CM (Commercial Message) data included in the contents to be reproduced from the advertisement storage unit frame 16 from content ID with a distribution request based on the user profile information; Page 36, Paragraph 0135).

Therefore, it would have been obvious to one of ordinary skills in the art at the time the invention was made to combine the technique of Masahito with AARTS to deliver user-friendly advertisements in accordance with the video content **(Masahito: Page 1, Paragraph 0001).**

Regarding claim 24, AARTS discloses wherein the sub content is advertisement content **(advertisement information; Page 1, Paragraph 0005).**

Regarding claim 25, the claim is interpreted and rejected for the same reason as set forth in claim 1.

Regarding claim 27, the claim is interpreted and rejected for the same reason as set forth in claim 19.

Regarding claim 28, the claim is interpreted and rejected for the same reason as set forth in claim 21.

Regarding claim 29, AARTS teaches a server configured to perform operations comprising: storing a plurality of sub content data and a plurality of main content data **(the advertisement service stores advertisement information in store (Fig. 1,**

element 13a), and may also track advertisement data sent to a particular user or device; Page 2, Paragraph 0021), wherein each of the plurality of sub content data is associated with one or more sub content attributes (the user profile information may simply categorize the user in accordance with demographic terms, such as age, gender or geographical location, or may be a more detailed profile based on the user's recorded browsing habits, purchasing patterns or indeed on information voluntarily submitted by a user; Page 1, Paragraph 0002 ... an advertisement server (Fig. 1, element 13) interpreted as "the application server system" is configured to retrieve advertisement information in accordance with the user information and transmit it to the user device ; Page 1, Paragraph 0013) ; receiving a content delivery request from a user device (the advertisement device is operable to receive a data request (Fig. 1, element 14); Page 2, Paragraph 0021), wherein the content delivery request identifies first main content data of the plurality of main content data (the advertisement device is operable to receive a data request from the user device, said data request is transmitted in accordance with the metadata received in the content information; Page 2, Paragraphs 0021 - 0022); selecting at least first sub content data and second sub content data from the plurality of sub content data based on the first sub content data and the second sub content data being associated with at least a particular attribute of the sub content attributes (Fig. 3, step 33 shows that the authentication service generates advertisement information in accordance with the received authentication information wherein an advertisement can be personalized to the user, such as age, gender, geographic

information or any other information as appropriate; Page 2, Paragraph 0023);
transmitting a first choice option corresponding to the first sub content data and a
second choice option corresponding to the second sub content data to the user device
(Fig. 3, step 34 shows that the advertisement service transmits the advertisement
information to the user device; Page 2, Paragraph 0023), wherein the user
equipment comprises a content outputting unit for receiving main content data and sub
content data transmitted by the application server system and outputting **(Fig. 2, step**
23 shows that the user device receives advertisement information from the
advertisement service, and at step 24 generates an output; Page 2, Paragraph
0022), based on the received main content data and sub content data **(in accordance**
with the newly received content information interpreted as “the main content
data” and advertisement information interpreted as “the sub content data”; Page
2, Paragraph 0022), viewing content in which sub content represented by the sub
content data is inserted in main content represented by the main content data **(the**
advertisement service generates advertisement information interpreted as “the
sub content” in accordance with the user's desired content transmitted by the
authentication service; Page 2, Paragraph 0023).

However, AARTS does not specifically disclose transmitting play-list information
to the user device via a connection established by a connection control system, wherein
the play-list information identifies the main content, the first sub content data, the
second sub content data, and a sequence in which the main content, the first sub
content data, the second sub content data are to be output.

In an analogous art, Masahito teaches transmitting play-list information to the user device via a connection established by a connection control system, wherein the play-list information identifies the main content, the first sub content data, the second sub content data, and a sequence in which the main content, the first sub content data, the second sub content data are to be output **(Playlist generating unit 13b extracts the CM (Commercial Message) data included in the contents to be reproduced from the advertisement storage unit frame 16 from content ID with a distribution request based on the user profile information; Page 36, Paragraph 0135 ... extracts the CM data included in the contents from the advertisement frame memory unit 16 and delivers the play list generation unit 13b, (M407); Page 35, Paragraph 0131 ... The video distribution server 13, extracts the advertisement frame associated to content ID with a distribution request from the advertisement frame memory unit 16, and checks whether the advertisement frame according to a user attribute is set up in the placement decision service in (S103); Page 36, Paragraph 0132).**

Therefore, it would have been obvious to one of ordinary skills in the art at the time the invention was made to combine the technique of Masahito with AARTS to deliver user-friendly advertisements in accordance with the video content **(Masahito: Page 1, Paragraph 0001).**

Regarding claim 30, AARTS discloses wherein the server is further configured to perform operations comprising: receiving a sub content viewing request from the user device, wherein the sub content viewing request contains a selected choice

corresponding to either the first choice option or the second choice option (**Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service containing content data to be used in providing an output to the user and metadata to enable appropriate advertisement information; Page 2, Paragraph 0022**); transmitting the first sub content data to the user device as selected sub content data if the selected choice corresponds to the first choice option; transmitting the second sub content data to the user device as the selected sub content data if the selected choice corresponds to the second choice option (**Fig. 3, step 33 shows that the authentication service generates advertisement information in accordance with the received authentication information wherein an advertisement can be personalized to the user, such as age, gender, geographic information or any other information as appropriate; Page 2, Paragraph 0023**); and transmitting the first main content data identified by the content delivery request to the user device (**Fig. 3, step 34 shows that the advertisement service transmits the advertisement information to the user device; Page 2, Paragraph 0023**).

Regarding claim 31, AARTS discloses wherein a user inputs a selection command to the user device to select the first choice option or the second choice option as the selected choice (**Fig. 3, step 33 shows that the authentication service generates advertisement information in accordance with the received authentication information wherein an advertisement can be personalized to the user, such as age, gender, geographic information or any other information as appropriate; Page 2, Paragraph 0023**).

Regarding claim 32, AARTS discloses wherein the server is further configured to perform operations comprising: transmitting the first main content data and the selected sub content data to the user device for viewing on the user device (**Fig. 3, step 34 shows that the advertisement service transmits the advertisement information to the user device; Page 2, Paragraph 0023**).

Regarding claim 33, AARTS discloses wherein the content delivery request from the user device contains user information about a user of the user device (**the user information store (Fig. 1, element 16a) comprise demographic information corresponding to the user; Page 1, Paragraph 0010**), and wherein the server is further configured to perform operations comprising selecting the first sub content data and the second sub content data when the particular attribute corresponds to the user information (**an advertisement server (Fig. 1, element 13) interpreted as “the application server system” is configured to retrieve advertisement information in accordance with the user information and transmit it to the user device ; Page 1, Paragraph 0013**).

Regarding claim 34, the claim is interpreted and rejected for the same reason as set forth in claim 33.

Regarding claim 35, AARTS discloses wherein the server is further configured to perform operations comprising: associating each of the plurality of main content data with one or more main content attributes (**the user profile information may simply categorize the user in accordance with demographic terms, such as age, gender or geographical location, or may be a more detailed profile based on the user's**

recorded browsing habits, purchasing patterns or indeed on information voluntarily submitted by a user; Page 1, Paragraph 0002 ... Fig. 3, step 33 shows that the authentication service generates advertisement information in accordance with the received authentication information wherein an advertisement can be personalized to the user, such as age, gender, geographic information or any other information as appropriate; Page 2, Paragraph 0023); selecting the first and second sub content data when the particular attribute corresponds to a particular main content attribute of the first main content **(Fig. 3, step 33 shows that the authentication service generates advertisement information in accordance with the received authentication information wherein an advertisement can be personalized to the user, such as age, gender, geographic information or any other information as appropriate; Page 2, Paragraph 0023).**

Regarding claim 36, the claim is interpreted and rejected for the same reason as set forth in claim 35.

Regarding claim 37, AARTS teaches a content delivery system **(a method of supplying advertising content; Page 1, Paragraph 0001)** comprising an application server system **(an advertisement service (Fig. 1, element 13); Page 2, Paragraph 0021)** and a connection control system **(an authentication service (Fig. 1, element 0016); Page 2, Paragraph 0021)**, the connection control system being configured to receive equipment specification information transmitted by user equipment and establish connection between the application server system and this user equipment based on the received equipment specification information **(the authentication service**

interpreted as “the connection control system” is configured to receive information corresponding to identified users in order to permit communication between the advertisement service and the user device (Fig. 1, element 10); Page 2, Paragraph 0021), the application server system (the advertisement service interpreted as “the application service system”; Page 2, Paragraph 0021) comprising: a delivery request reception unit for receiving (the advertisement device is operable to receive a data request (Fig. 1, element 14); Page 2, Paragraph 0021) a content delivery request transmitted by the user equipment and containing main content identification information for identifying the main content (the advertisement device is operable to receive a data request from the user device, said data request is transmitted in accordance with the metadata received in the content information; Page 2, Paragraphs 0021 - 0022); a sub content selection unit for selecting the sub content data based on the equipment specification information or the main content identification information (the user profile information may simply categorize the user in accordance with demographic terms, such as age, gender or geographical location, or may be a more detailed profile based on the user's recorded browsing habits, purchasing patterns or indeed on information voluntarily submitted by a user; Page 1, Paragraph 0002 ... an advertisement server (Fig. 1, element 13) interpreted as “the application server system” is configured to retrieve advertisement information in accordance with the user information and transmit it to the user device ; Page 1, Paragraph 0013); and a selected sub content specification information transmission unit for transmitting selected sub content

specification information for specifying the selected sub content data (**Fig. 3, step 34 shows that the advertisement service transmits the advertisement information to the user device; Page 2, Paragraph 0023**) via the connection control system (**an authentication service (Fig. 1, element 0016); Page 2, Paragraph 0021**) to the user equipment which has transmitted the content delivery request (**Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service; Page 2, Paragraph 0022**), wherein the selected sub content specification information transmission unit is configured to transmit (**Fig. 3, step 34 shows that the advertisement service transmits the advertisement information to the user device; Page 2, Paragraph 0023**), when the connection control system executes a process for establishing the connection (**the authentication service interpreted as "the connection control system" is configured to authenticate the user devices verifying the information contained in the authentication request (Fig. 1, element 17) or confirming the identity of the user devices; Page 2, Paragraph 0021**), via the connection control system (**an authentication service (Fig. 1, element 0016); Page 2, Paragraph 0021**) to the user equipment which has transmitted the content delivery request (**Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service; Page 2, Paragraph 0022**).

However, AARTS does not specifically disclose play-list information which is information containing the main content identification information contained in the content delivery request and the selected sub content specification information, and is information containing information indicating a sequence in which the main content

identified by the main content identification information and the sub content specified by the selected sub content specification information are output.

In an analogous art, Masahito teaches play-list information which is information containing the main content identification information contained in the content delivery request and the selected sub content specification information (**playlist generating unit 13b extracts the CM (Commercial Message) data included in the contents to be reproduced from the advertisement storage unit frame 16 from content ID with a distribution request based on the user profile information; Page 36, Paragraph 0135** *Note: the examiner interpreted the CM data as the sub content information, and the content ID as the main content identification information*), and is information containing information indicating a sequence in which the main content identified by the main content identification information and the sub content specified by the selected sub content specification information are output (**extracts the CM data included in the contents from the advertisement frame memory unit 16 and delivers the play list generation unit 13b, (M407); Page 35, Paragraph 0131 ... the playlist to perform processing such as, play, and transmits it to the viewer's terminal; Page 37, Paragraph 0136**).

Therefore, it would have been obvious to one of ordinary skills in the art at the time the invention was made to combine the technique of Masahito with AARTS to deliver user-friendly advertisements in accordance with the video content (**Masahito: Page 1, Paragraph 0001**).

Regarding claim 39, the claim is interpreted and rejected for the same reason as set forth in claim 37.

Regarding claim 40, AARTS teaches a non-transitory computer program comprising instructions for causing a service control server to realize: a delivery request reception unit for receiving a content delivery request containing main content identification information for identifying main content **(the advertisement device is operable to receive a data request (Fig. 1, element 14) from the user device, said data request is transmitted in accordance with the metadata received in the content information; Page 2, Paragraphs 0021 - 0022)** and transmitted by a user equipment **(Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service; Page 2, Paragraph 0022)** via a connection control system establishing connection between a media server and the user equipment **(Fig. 3, step 31 shows that the advertisement service transmits an authentication request to the authentication server in order to establish connection with the advertisement service; Page 2, Paragraph 0023)**; an sub content selection unit for selecting content data based on the main content identification information **(the advertisement service generates advertisement information interpreted as “the sub content” in accordance with the user’s desired content transmitted by the authentication service; Page 2, Paragraph 0023)**; and a selected sub content specification information transmission unit for transmitting selected sub content specification information specifying the selected sub content data via the connection control system to the user equipment which has transmitted the content delivery request **(Fig. 3, step**

34 shows that the advertisement service transmits the advertisement information to the user device; Page 2, Paragraph 0023), and the selected sub content specification information transmission unit for transmitting **(Fig. 3, step 34 shows that the advertisement service transmits the advertisement information to the user device; Page 2, Paragraph 0023),** when the connection control system executes a process for establishing the connection **(the authentication service interpreted as "the connection control system" is configured to authenticate the user devices verifying the information contained in the authentication request (Fig. 1, element 17) or confirming the identity of the user devices; Page 2, Paragraph 0021),** via the connection control system **(an authentication service (Fig. 1, element 0016); Page 2, Paragraph 0021)** to the user equipment which has transmitted the content delivery request **(Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service; Page 2, Paragraph 0022).**

However, AARTS does not specifically disclose play-list information that is information containing the main content identification information contained in the content delivery request and the selected sub content specification information, and is information containing information indicating a sequence in which the main content identified by the main content identification information and the sub content specified by the selected sub content specification information are output.

In an analogous art, Masahito teaches play-list information that is information containing the main content identification information contained in the content delivery request and the selected sub content specification information **(playlist generating unit**

13b extracts the CM (Commercial Message) data included in the contents to be reproduced from the advertisement storage unit frame 16 from content ID with a distribution request based on the user profile information; Page 36, Paragraph 0135 *Note: the examiner interpreted the CM data as the sub content information, and the content ID as the main content identification information*), and is information containing information indicating a sequence in which the main content identified by the main content identification information and the sub content specified by the selected sub content specification information are output (extracts the CM data included in the contents from the advertisement frame memory unit 16 and delivers the play list generation unit 13b, (M407); Page 35, Paragraph 0131 ... the playlist to perform processing such as, play, and transmits it to the viewer's terminal; Page 37, Paragraph 0136**).**

Therefore, it would have been obvious to one of ordinary skills in the art at the time the invention was made to combine the technique of Masahito with AARTS to deliver user-friendly advertisements in accordance with the video content (**Masahito: Page 1, Paragraph 0001**).

Regarding claim 41, the claim is interpreted and rejected for the same reason as set forth in claim 40.

6. Claims 11 - 14, 26 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over AARTS in view of Masahito, and further in view of Montpetit et al. (Pub # US 2007/0223523 A1 hereinafter Montpetit).

Regarding claim 11, AARTS teaches a content delivery system **(a method of supplying advertising content; Page 1, Paragraph 0001)** comprising an application server system **(an advertisement service (Fig. 1, element 13); Page 2, Paragraph 0021)** and a connection control system **(an authentication service (Fig. 1, element 0016); Page 2, Paragraph 0021)**, the connection control system for receiving equipment specification information transmitted by user equipment and establishing connection between the application server system and the user equipment based on the received equipment specification information **(the authentication service interpreted as “the connection control system” is configured to receive information corresponding to identified users in order to permit communication between the advertisement service and the user device (Fig. 1, element 10); Page 2, Paragraph 0021)**, the application server system comprising **(the advertisement service interpreted as “the application service system”; Page 2, Paragraph 0021)**: a media functions part for transmitting content data representing content to the user equipment **(Fig. 3, step 34 shows that the advertisement service transmits the advertisement information to the user device; Page 2, Paragraph 0023)** with which the connection is established **((Fig. 3, step 31 shows that the advertisement service transmits an authentication request to the authentication server in order to establish connection with the advertisement service; Page 2, Paragraph 0023)**; a service control functions part for controlling a service provided by the media functions part **(an advertisement server is configured to retrieve advertisement information in accordance with the user information and transmit it to the user device ; Page 1,**

Paragraph 0013); and a user profile server functions part for storing profile information of a user of the user equipment **(the user information store (Fig. 1, element 16a) comprise demographic information corresponding to the user; Page 1, Paragraph 0010)**, the media functions part comprising a content storage unit for storing sub content data representing sub content and main content data representing main content **(the advertisement service stores advertisement information in store (Fig. 1, element 13a), and may also track advertisement data sent to a particular user or device; Page 2, Paragraph 0021)**, the service control functions part comprising: a delivery request reception unit for receiving **(the advertisement device is operable to receive a data request (Fig. 1, element 14); Page 2, Paragraph 0021)** a content delivery request containing main content identification information for identifying the main content and transmitted by the user equipment content **(the advertisement device is operable to receive a data request from the user device, said data request is transmitted in accordance with the metadata received in the content information; Page 2, Paragraphs 0021 - 0022)**; and an sub content selection unit for selecting the stored sub content data based on selection information containing attribute information representing an attribute of the sub content **(Fig. 3, step 33 shows that the authentication service generates advertisement information in accordance with the received authentication information wherein an advertisement can be personalized to the user, such as age, gender, geographic information or any other information as appropriate; Page 2, Paragraph 0023)** and preliminarily stored by the user profile server functions part **(Fig. 2, step 21 shows that the user device**

receives data including content information from the content service; Page 2, Paragraph 0022), the service control functions part or the connection control system (the authentication service interpreted as “the connection control system”; Page 2, Paragraph 0021); and a selected sub content specification information transmission unit for transmitting selected sub content specification information for specifying the selected sub content data to the user equipment which has transmitted the content delivery request (Fig. 3, step 34 shows that the advertisement service transmits the advertisement information to the user device; Page 2, Paragraph 0023), wherein the selected sub content specification information transmission unit is configured to transmit (Fig. 3, step 34 shows that the advertisement service transmits the advertisement information to the user device; Page 2, Paragraph 0023), when the connection control system executes a process for establishing the connection (the authentication service interpreted as “the connection control system” is configured to authenticate the user devices verifying the information contained in the authentication request (Fig. 1, element 17) or confirming the identity of the user devices; Page 2, Paragraph 0021), to the user equipment which has transmitted the content delivery request (Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service; Page 2, Paragraph 0022), wherein the user equipment comprises a content outputting unit for receiving main content data and sub content data transmitted by the application server system and outputting (Fig. 2, step 23 shows that the user device receives advertisement information from the advertisement service, and at step 24 generates an output; Page 2, Paragraph

0022), based on the received main content data and sub content data **(in accordance with the newly received content information interpreted as “the main content data” and advertisement information interpreted as “the sub content data”;** Page 2, Paragraph 0022), viewing content in which sub content represented by the sub content data is inserted in main content represented by the main content data **(the advertisement service generates advertisement information interpreted as “the sub content” in accordance with the user's desired content transmitted by the authentication service; Page 2, Paragraph 0023).**

However, AARTS does not specifically disclose a core IMS (Internet Protocol Multimedia Subsystem) part, via the core IMS part; play-list information that is information containing the main content identification information contained in the content delivery request and the selected sub content specification information, and is information containing information indicating a sequence in which the main content identified by the main content identification information and the sub content specified by the selected sub content specification information are output.

In an analogous art, Masahito teaches play-list information that is information containing the main content identification information contained in the content delivery request and the selected sub content specification information **(playlist generating unit 13b extracts the CM (Commercial Message) data included in the contents to be reproduced from the advertisement storage unit frame 16 from content ID with a distribution request based on the user profile information; Page 36, Paragraph 0135** *Note: the examiner interpreted the CM data as the sub content information,*

and the content ID as the main content identification information), and is information containing information indicating a sequence in which the main content identified by the main content identification information and the sub content specified by the selected sub content specification information are output **(extracts the CM data included in the contents from the advertisement frame memory unit 16 and delivers the play list generation unit 13b, (M407); Page 35, Paragraph 0131 ... the playlist to perform processing such as, play, and transmits it to the viewer's terminal; Page 37, Paragraph 0136).**

It would have been obvious to one of ordinary skills in the art at the time the invention was made to combine the technique of Masahito with AARTS to deliver user-friendly advertisements in accordance with the video content **(Masahito: Page 1, Paragraph 0001).**

However, the combination of AARTS and Masahito does not specifically disclose comprising a core IMS (Internet Protocol Multimedia Subsystem) part, via the core IMS part.

In an analogous art, Montpetit teaches comprising a core IMS (Internet Protocol Multimedia Subsystem) part **(the core network comprises an IP Multimedia Core Network Subsystem (IMS); Page 2, Paragraph 0018)**, via the core IMS part **(the core network comprises an IMS; Page 2, Paragraph 0018).**

Therefore, it would have been obvious to one of ordinary skills in the art at the time the invention was made to provide the technique of Montpetit to the modified

system of AARTS and Masahito to provide an effective network services and application customization (**Montpetit: Page 1, Paragraph 0013**).

Regarding claim 12, the combination of AARTS and Masahito, specifically AARTS teaches wherein: the user equipment comprises **(the user device interpreted as “user equipment”; Page 2, Paragraph 0021)**: a selected sub content specification information reception unit for receiving the selected sub content specification information transmitted by the service control functions part (**Fig. 2, step 23 shows that the user device receives advertisement information from the advertisement service; Page 2, Paragraph 0022**); and a content viewing request transmission unit for transmitting (**Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service; Page 2, Paragraph 0022**), to the media functions part (**the advertisement service interpreted as “the media functions part”; Page 2, Paragraph 0021**), a main content viewing request containing the main content identification information and an sub content viewing request containing the received selected sub content specification information (**Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service containing content data to be used in providing an output to the user and metadata to enable appropriate advertisement information; Page 2, Paragraph 0022**), when connection with the media functions part is established by (**Fig. 3, step 31 shows that the advertisement service transmits an authentication request to the authentication server in order to establish connection with the advertisement service; Page 2, Paragraph 0023**), and the media functions part comprises a content delivering unit for

receiving the main content viewing request transmitted by the user equipment and transmitting to the user equipment main content data identified by the main content identification information contained in the received main content viewing request **(the advertisement service receives a data request in the store (Fig. 1, element 13a) from the user device in accordance to the user's desired content transmitted by the authentication service, and at step 34 transmits the advertisement information to the user device 10; Page 2, Paragraphs 0021 - 0023)**, and for receiving the sub content viewing request transmitted by the user equipment and transmitting to the user equipment sub content data specified by the selected sub content specification information contained in the received sub content viewing request **(Fig. 3, step 30 shows that the advertisement service receives the data request from the user device, and at step 34 transmits the advertisement information to the user device; Page 2, Paragraph 0023)**.

However, the combination of AARTS and Masahito does not specifically disclose the core IMS part.

In an analogous art, Montpetit teaches the core IMS part **(the core network comprises an IP Multimedia Core Network Subsystem (IMS); Page 2, Paragraph 0018)**.

Therefore, it would have been obvious to one of ordinary skills in the art at the time the invention was made to provide the technique of Montpetit to the modified system of AARTS and Masahito to provide an effective network services and application customization **(Montpetit: Page 1, Paragraph 0013)**.

Regarding claim 13, AARTS discloses wherein the user equipment comprises a content outputting unit for receiving main content data and sub content data transmitted by the media functions part (**Fig. 2, step 23 shows that the user device receives advertisement information from the advertisement service, and at step 24 generates an output; Page 2, Paragraph 0022**), and outputting (**at step 24 generates an output; Page 2, Paragraph 0022**), based on the received main content data and sub content data (**in accordance with the newly received content information interpreted as “the main content data” and advertisement information interpreted as “the sub content data”; Page 2, Paragraph 0022**), viewing content in which sub content represented by the sub content data is inserted in main content represented by the main content data (**the advertisement service generates advertisement information interpreted as “the sub content” in accordance with the user's desired content transmitted by the authentication service; Page 2, Paragraph 0023**).

Regarding claim 14, AARTS teaches wherein the selected sub content specification information reception unit is configured to receive (**Fig. 2, step 23 shows that the user device receives advertisement information from the advertisement service; Page 2, Paragraph 0022**); and the content viewing request transmission unit is configured to transmit (**Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service; Page 2, Paragraph 0022**) the main content viewing request and the sub content viewing request (**Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service containing**

content data to be used in providing an output to the user and metadata to enable appropriate advertisement information; Page 2, Paragraph 0022) to the media functions part (the advertisement service ; Page 2, Paragraph 0021).

However, AARTS does not specifically disclose the play-list information transmitted by the service control functions part; based on the received play-list information.

In an analogous art, Masahito teaches the play-list information transmitted by the service control functions part **(determining the playlist to perform processing such as replacing the CM, to play, and transmits it to the viewer terminal 5 (M409); Page 36, Paragraph 0134);** based on the received play-list information **(playlist generating unit 13b extracts the CM (Commercial Message) data included in the contents to be reproduced from the advertisement storage unit frame 16 from content ID with a distribution request based on the user profile information; Page 36, Paragraph 0135 ... extracts the CM data included in the contents from the advertisement frame memory unit 16 and delivers the play list generation unit 13b, (M407); Page 35, Paragraph 0131 ... The video distribution server 13, extracts the advertisement frame associated to content ID with a distribution request from the advertisement frame memory unit 16, and checks whether the advertisement frame according to a user attribute is set up in the placement decision service in (S103); Page 36, Paragraph 0132).**

Therefore, it would have been obvious to one of ordinary skills in the art at the time the invention was made to combine the technique of Masahito with AARTS to

deliver user-friendly advertisements in accordance with the video content (**Masahito: Page 1, Paragraph 0001**).

Regarding claim 26, the claim is interpreted and rejected for the same reason as set forth in claim 11.

Regarding claim 38, AARTS teaches a content delivery system (**a method of supplying advertising content; Page 1, Paragraph 0001**) comprising an application server system (**an advertisement service (Fig. 1, element 13); Page 2, Paragraph 0021**) and a connection control system (**an authentication service (Fig. 1, element 0016); Page 2, Paragraph 0021**), the connection control system for receiving equipment specification information transmitted by user equipment and establishing connection between the application server system and the user equipment based on the received equipment specification information (**the authentication service interpreted as “the connection control system” is configured to receive information corresponding to identified users in order to permit communication between the advertisement service and the user device (Fig. 1, element 10); Page 2, Paragraph 0021**), the application server system (**the advertisement service interpreted as “the application service system”; Page 2, Paragraph 0021**) comprising: a media functions part for transmitting content data representing content to the user equipment (**Fig. 3, step 34 shows that the advertisement service transmits the advertisement information to the user device; Page 2, Paragraph 0023**) with which connection is established ((**Fig. 3, step 31 shows that the advertisement service transmits an authentication request to the authentication server in order to establish**

connection with the advertisement service; Page 2, Paragraph 0023); a service control functions part for controlling a service provided by the media functions part **(an advertisement server is configured to retrieve advertisement information in accordance with the user information and transmit it to the user device ; Page 1, Paragraph 0013);** and a user profile server functions part for storing profile information of a user of the user equipment **(the user information store (Fig. 1, element 16a) comprise demographic information corresponding to the user; Page 1, Paragraph 0010),** and the service control functions part comprising: a delivery request reception unit for receiving **(the advertisement device is operable to receive a data request (Fig. 1, element 14); Page 2, Paragraph 0021)** a content delivery request containing main content identification information for identifying the main content and transmitted by the user equipment **(the advertisement device is operable to receive a data request from the user device, said data request is transmitted in accordance with the metadata received in the content information; Page 2, Paragraphs 0021 - 0022),** and an sub content selection unit for selecting the sub content data based on the equipment specification information or the main content identification information **(Fig. 3, step 33 shows that the authentication service generates advertisement information in accordance with the received authentication information wherein an advertisement can be personalized to the user, such as age, gender, geographic information or any other information as appropriate; Page 2, Paragraph 0023);** and a selected sub content specification information transmission unit for transmitting selected sub content specification information for specifying the

selected sub content data to the user equipment which has transmitted the content delivery request **Fig. 3, step 34 shows that the advertisement service transmits the advertisement information to the user device; Page 2, Paragraph 0023)**, wherein the selected sub content specification information transmission unit is configured to transmit **(Fig. 3, step 34 shows that the advertisement service transmits the advertisement information to the user device; Page 2, Paragraph 0023)**, when the connection control system executes a process for establishing the connection **(the authentication service interpreted as “the connection control system” is configured to authenticate the user devices verifying the information contained in the authentication request (Fig. 1, element 17) or confirming the identity of the user devices; Page 2, Paragraph 0021)**, to the user equipment which has transmitted the content delivery request **(Fig. 2, step 22 shows that the user device transmits a data request to the advertisement service; Page 2, Paragraph 0022).**

However, AARTS does not specifically disclose a core IMS (Internet Protocol Multimedia Subsystem) part, via the core IMS part; play-list information that is information containing the main content identification information contained in the content delivery request and the selected sub content specification information, and is information containing information indicating a sequence in which the main content identified by the main content identification information and the sub content specified by the selected sub content specification information are output.

In an analogous art, Masahito teaches play-list information that is information containing the main content identification information contained in the content delivery

request and the selected sub content specification information (**playlist generating unit 13b extracts the CM (Commercial Message) data included in the contents to be reproduced from the advertisement storage unit frame 16 from content ID with a distribution request based on the user profile information; Page 36, Paragraph 0135** *Note: the examiner interpreted the CM data as the sub content information, and the content ID as the main content identification information*), and is information containing information indicating a sequence in which the main content identified by the main content identification information and the sub content specified by the selected sub content specification information are output (**extracts the CM data included in the contents from the advertisement frame memory unit 16 and delivers the play list generation unit 13b, (M407); Page 35, Paragraph 0131 ... the playlist to perform processing such as, play, and transmits it to the viewer's terminal; Page 37, Paragraph 0136**).

It would have been obvious to one of ordinary skills in the art at the time the invention was made to combine the technique of Masahito with AARTS to deliver user-friendly advertisements in accordance with the video content (**Masahito: Page 1, Paragraph 0001**).

However, the combination of AARTS and Masahito does not specifically disclose comprising a core IMS (Internet Protocol Multimedia Subsystem) part, via the core IMS part.

In an analogous art, Montpetit teaches comprising a core IMS (Internet Protocol Multimedia Subsystem) part (**the core network comprises an IP Multimedia Core**

Network Subsystem (IMS); Page 2, Paragraph 0018), via the core IMS part **(the core network comprises an IMS; Page 2, Paragraph 0018)**.

Therefore, it would have been obvious to one of ordinary skills in the art at the time the invention was made to provide the technique of Montpetit to the modified system of AARTS and Masahito to provide an effective network services and application customization **(Montpetit: Page 1, Paragraph 0013)**.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATALI N. PASCUAL PEGUERO whose telephone number is (571)272-4691. The examiner can normally be reached on Monday - Friday 11:30am - 8:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, UN C. CHO can be reached on (571)272-7919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/NATALI N PASCUAL PEGUERO/
Examiner, Art Unit 2413

/UN C. CHO/
Supervisory Patent Examiner, Art Unit 2413