(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
21 November 2013 (21.11.2013)

WIPO | PCT

(10) International Publication Number
WO 2013/171775 A1

(51) International Patent Classification:
H04N 21/2543 (2011.01) *H04N 21/6587* (2011.01)
H04N 21/81 (2011.01)

(21) International Application Number:
PCT/IT2012/000151

(22) International Filing Date:
24 May 2012 (24.05.2012)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
MI2012A000839 15 May 2012 (15.05.2012) IT

(72) Inventor; and
(71) Applicant : **GIUDICI, Marco** [IT/IT]; Via Fratelli Cervi, Residenza Sassi, 212, I-20090 Segrate (MI) (IT).

(74) Agent: **GUELLA, Paolo**; Brevetti Dott. Ing. Digiovanni Schmiedt S.r.L., Via Aldrovandi, 7, I-20129 Milano (MI) (IT).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report (Art. 21(3))*

— *with amended claims (Art. 19(1))*

WO 2013/171775 A1

(54) **Title**: METHOD FOR SUPPLYING ON-LINE SERVICES IN ACCORDANCE WITH SUPPLY MODES SELECTED BY THE CLIENT

(57) **Abstract**: A method for purchasing on-line, from the domain of a service provider, a ser¬ vice made available on-line and re-ceivable by a client by means of his own re¬ ceiver device provided with a screen for the reception of images, according to which the client selects each time, in real time and in an interactive manner, the supply mode for the aforesaid service. In particular, the method is devel¬ oped in the following manner: > the client activates an on-line connection between his receiver device and the domain of the pre-selected provider, receiving in response, on the screen of his receiver, an image (B) which supplies information on the avail-able services, and for each proposed service, the image (B) supplies a hyperlink for the selection of the service, > the client selects, by means of said hyperlink, a specific service, receiving in response, on the screen of his receiver, an image (C) which supplies in¬ formation on the supply mode for the service and which comprises at least one hyperlink for the selection of each specific mode, at least one of said modes being supplied for a specific cost, > the client selects, by means of said hyperlink, a specific mode, after which the provider sends to the client the requested service in accordance with the selected mode, possibly deducting the required amount from a specific deposit account, > at the end of the time period employed for using the requested service, the provider once again sends the image (B), and the cycle is repeated until the client selects a different domain or closes said on-line connection.

Method for supplying on-line services in accordance with supply modes selected by the client

The present invention regards the field of supplying audio-visual services through data transmission networks, both via cable and via wireless, and more particularly by means of any communication protocol recognized by the ISO/OSI standard (e.g. TCP/IPv4 and TCP/IPv6, UDP, REST, http, IPX, etc.) on any point-point network technology (EDGE, UMTS, LTE, WI-Max, PSTN, CDN, MPLS, etc.) or through the Internet network by means of connection on private network (e.g. Virtual Private Network) or on an open Internet network. In particular, the invention regards a method for proposing the supply of a service to a client, such service being delivered inside an architecture of a provider of services that are displayed on the Internet, in accordance with a supply mode selected by the client.

The on-line supply of audio-visual services originated and developed with the activity of transmission systems managed by a state-owned body; such systems began to transmit via wireless, by means of radio frequency, audio-visual services such as television news, movies, comedies, plays, debates, variety shows and other types of entertainment. The costs for the preparation and supply of said services are paid by the user (spectator) by means of a periodic subscription, generally annual, paid to the aforesaid body.

The spectator can listen to and view these services by means of a receiver device provided with speakers for the reception of the audio part and a screen

suitable for reproducing the images of the video part.

Based on the technical characteristics of the transmission and reception systems provided by the industry, a plurality of frequencies usable for the aforesaid transmissions have become available over time. Such frequencies are grouped into groups (frequency or band ranges) that are normally identified as channels, or in any case they are identified as such in the present description. Each provider has one or more transmission channels available.

Below, with the term "provider" it is intended any person or organization of people, having personal or legal profile, who/which offers to the public audio-visual services irradiated through any type of transmission network.

Subsequent to the state-owned bodies, other audio-visual service suppliers arose over time: these are the owners of private transmission systems, who offer the public a plurality of audio-visual services in competition with those supplied by other providers. These private providers offer their services free of charge to the public, but recover the relative expenses by transmitting advertizing inserts together with their services.

Such inserts can assume different forms in television or multimedia fields: for example, they can be inserted within the content of the transmitted service, in accordance with modes that (with jargon well known to those skilled in the art) are indicated as pre-roll, mid-roll, post-roll, or in overprinting the image as writing (pop-up) or small windows containing such writing, i.e. the well-known banners.

These advertizing services are sources of great disturbance for spectators, since they are transmitted as a fixed or recurring image on the screen, in such a manner disturbing the viewing and/or listening of the service, or by interrupting the audio-visual service underway, returning to it after a certain time period. In this case, the disturbance is particularly irritating and invasive for the spectator when the transmitted service is of a certain type, such to capture the spectator's maximum attention, emotions or sentiments. The spectator thus suffers greatly for this brutal interruption of his attention.

In order to remedy this drawback, some providers have arisen which transmit their services without advertizing inserts, but like other managers they require

the payment of a subscription.

The Applicant has nevertheless observed that the spectator user, identified below as "the client", after having made his selection for a specific provider, is unable to select the mode with which he will receive the requested service from the provider; he could, in fact, be interested in selecting, as a function of the offered service, the use mode of the same, in particular with or without advertizing inserts.

Now, therefore, the Applicant has found a new method for carrying out the selection of the specific mode with which a specific service is received, with regard to all of the services made available to clients by a particular provider.

Hence, in a first aspect thereof, the present invention regards a method for purchasing on-line, from a provider, a service made available on-line, characterized in that the client selects each time, in real time and in an interactive manner, the supply mode for the aforesaid service.

In a second aspect thereof, said supply mode includes the payment mode for said service.

In a further aspect thereof, the invention regards the fact that the method is applied to all the transmissions irradiated in any manner, via wireless as well as via cable.

At any rate, the present invention can be better understood from the following description, provided as a merely non-limiting example; other embodiments are in any case possible so long as they respect and fall within the scope of the definition of the aforesaid method according to the following claims.

In the following description, with 'audio-visual service' it is intended any type of audio-visual service transmitted through a data transmission network. By 'receiver device', it is intended any fixed or portable device, equipped with means (e.g.: speakers) suitable for reproducing sounds (words and music) and means (normally known as screens) suitable for receiving images. Without claiming to have an exhaustive case list, we limit ourselves to mentioning TV sets, personal computers, cellular phones, smartphones and tablets, in particular all those normally known as "second Screen".

With the word 'image', we intend to define all that which at any moment appears

on the screen of the receiver device. Normally, the image received on the screen only comprises figures, at least for most of the reception time; nevertheless, it can also or only comprise writing and one or more windows, with smaller area than that of the screen, in which other figures and other writing can appear, not belonging to the service which is transmitted at that time.

One of the most convenient methods for interacting with the provider connected with the receiver device of the client is that of intervening on the image present on the screen: below, in the present description, for convenience and ease of comprehension, we will make reference to this possibility.

According to this mode, the image transmitted on the screen comprises at least one editable field and/or at least one hyperlink. By 'editable field' it is intended a window present on the screen, generally unaffected by the variations of the service image, within which the client can write a message and send it immediately to the provider.

With 'hyperlink' it is intended a field of limited area, inserted in the image present on the screen, normally identified with a written indication and/or a drawing; by acting on such hyperlink, one sends a specific instruction to the provider.

In order to interact in the described manner through the screen of the receiver device, three systems in particular have been known for a long time: the remote control for managing television sets, the mouse operating in connection with a personal computer and the use of a finger with the screens known as "touch screen", i.e. touch-sensitive. Other systems are also well-known but below in the present description we will only make reference to these three, always for the sake of descriptive simplicity.

As already anticipated, the method according to the invention allows a client to purchase on-line, from a provider, an audio-visual service made available on-line, by selecting each time, in real time and in an interactive manner, the supply mode for the aforesaid service.

In particular, the aforesaid mode includes the selection to obtain said service free of charge, by accepting (in lieu of payment) the receipt of advertizing insertions during the service; or said service is obtained without advertizing insertions, by paying a share of the service cost.

Still in accordance with the invention, the payment of such amount is carried out by means of an on-line payment order for the provider, on the same transmission network that provides the requested service; said payment order having effect on a deposit account previously constituted by the client and controlled by the provider.

A variant of such system provides that the client constitutes a prepaid credit via purchasing a token of pre-established amount (e.g. a voucher of several days duration), after which the client can instruct his own receiver device to not display advertizing insertions until the aforesaid credit runs out.

In accordance with the method of the invention, the client activates an on-line connection between his receiver device and the domain of the pre-selected provider. Such connection can be performed with a normally known apparatus such as a remote control, when the connection is requested with a transmission channel controlled by the provider, as is usually done when one selects a television transmission.

In a different manner, when the client intends to connect himself, via PC, with a domain of a provider connected to a data transmission network, such as the Internet network, the client activates the connection with the aforesaid network and receives in response, on the screen of his receiver device, an image (A); such image comprises at least one field that can be edited for the insertion of a provider connection request. The client compiles said editable field with the website address of the pre-selected provider, which offers services available on-line; in response, the client receives on the screen of his receiver an image (B) which supplies information on the available services, and for each proposed service, the image (B) supplies a hyperlink for the selection of the service. This image will be preferably equal, at least functionally if not graphically, to that which the client receives following the connection with the transmission channel of the provider activated by means of remote control. Preferably, the hyperlink will have a simple and intuitive form, such as a colored button. The client selects a specific service by activating said hyperlink by means of mouse, remote control or by touching the screen in the provided point; the client receives in exchange, on the screen of his receiver, an image (C) that provides information on

the service supply mode and on the cost connected with each mode. Said image comprises at least one hyperlink for the selection of each specific mode, at least one of said modes providing for the supply of the service for a specific cost. For example, and without any limiting intent, the client asks to have an audio-visual service, e.g. to see a film of interest without any advertizing insertion, and the provider supplies such service with this mode for a specific payment amount. After the film, the client asks to see a sports event for free, accepting the fact that he will view the event disturbed by advertizing inserts, since (for this event type) these insertions do not particularly annoy him and since he wishes to save money.

Returning to the image (C), the client selects a specific mode via said hyperlink, authorizing or denying, by means of said selection, the charge of the relative cost on his own deposit account controlled by the provider. In case of acceptance of the charge, the provider withdraws said amount from said deposit account and sends, onto the screen of the client, an image (D) containing the information relative to the outcome of the operation and the residual value of the deposit account; the provider then sends the client the requested service.

At the end of the time period employed for using the requested service, the provider once again sends the client the image (B), and the cycle is repeated until the client selects a different provider or closes the connection with the transmission network, by turning off the receiver device.

The described invention offers important advantages, especially economic advantages. The client who intends to use audio-visual services without suffering the impact of disturbance elements such as advertizing insertions can obtain this benefit at a small price, certainly less than the cost of a subscription, since he can select each time (preferably immediately before using the service) whether he wishes to bear the required cost or not.

Also the opening of a deposit account at a provider, while advantageous, is not obligatory since the provider could use the client's credit card to recover the desired amount. The advantage of the account at the provider is that in this manner, the client does not have to transmit sensitive data like his credit card number through the data transmission network.

A particular merit of the method according to the invention is given from the fact that the possibility to select the use mode is not limited to the elimination of the advertizing and the payment of a charge, but is extended to other possibilities, such as the time to receive the service, the possibility to receive accessory services connected with the requested one, as well as the selection of particular payment modes.

Also with regard to the receivable services, these are not limited to events transmitted live or pre-recorded (with respect to the event time), but include other proposals such as the possibility to download films, music, photographs and documents in general through the transmission network.

In the present description, not all of the possible alternatives to the specifically described invention embodiments were illustrated: indeed, it did not seem necessary to expand upon the details of the software and the structural details of the devices used for the actuation of the invention, since every man skilled in the art, after the instructions given herein, will be able to design and obtain the most advantageous technical solution without difficulty, in relation to the type of receiver device to be used. These variants are nevertheless intended as equally comprised in the protective scope of the present patent, such alternative embodiments resulting *per se* easily derivable from the above description of the relation that binds each embodiment with the desired invention result.

CLAIMS

1. Method for purchasing on-line, from the domain of a service provider, a service made available on-line and receivable by a client by means of his own receiver device provided with a screen for the reception of images, characterized in that the client selects each time, in real time and in an interactive manner, the supply mode for the aforesaid service.
2. Method according to claim 1, characterized in that it comprises the following steps:
   a. the client activates an on-line connection between his receiver device and the domain of the pre-selected provider,
   b. on the screen of his receiver, the client receives an image (B) which supplies information on the available services, and for each proposed service the image (B) supplies a hyperlink for the selection of the service,
   c. the client selects, by means of said hyperlink, a specific service,
   d. on the screen of his receiver, the client receives an image (C) which supplies information on the supply mode for the service and which comprises at least one hyperlink for the selection of each specific mode, at least one of said modes being supplied for a specific cost,
   e. the client selects, by means of said hyperlink, a specific mode,
   f. the provider sends to the client the requested service, in accordance with the selected mode,
   g. at the end of the time period employed for using the requested service, the provider once again sends the image (B),
   h. the cycle is repeated until the client selects a different domain or closes said on-line connection.
3. Method according to claim 2, characterized in that said image (C) includes the cost connected with each supply mode.
4. Method according to claim 3, characterized in that it includes the following steps:

i. the client selects the mode which includes the payment of the service cost, authorizing, by means of said selection, the charge of the relative cost on his own deposit account,

j. the provider withdraws said amount from said account and sends, to the client screen, an image (E) that contains the information relative to the outcome of the operation,

5. Method according to claim 1, characterized in that the step a) includes the following steps:

k. the client activates an on-line connection between his receiver device and a data transmission network,

l. the client receives, on the screen of his receiver, an image (A) which comprises at least one field that can be edited for the insertion of a request for connection with a service provider,

m. the client compiles said editable field with the web address of the domain of a service provider which makes said services available on-line.

6. Method according to claim 2, characterized in that the client carries out said selections by interacting with the images which appear on the screen of his receiver.

7. Method according to claim 6, characterized in that the client performs said interaction by sending a signal in a specific point of said screen, by means of a remote control connected with said screen.

8. Method according to claim 6, characterized in that the client performs said interaction by sending a signal in a specific point of said screen, by means of a mouse connected with said screen.

9. Method according to claim 6, characterized in that the client performs said interaction by touching, with his hand, said screen in a specific point of the same.

AMENDED CLAIMS
received by the International Bureau on 15 FEBRUARY 2013 (15-02-2013)

CLAIMS

1. Method for purchasing on-line, from the domain of a service provider, a service made available on-line and receivable by a client by means of his own receiver device provided with a screen for the reception of images, the client selecting each time, in real time and in an interactive manner, the supply mode for the aforesaid service, said method being characterized in that it comprises the following steps:
   a. the client activates an on-line connection between his receiver device and the domain of the pre-selected provider,
   b. on the screen of his receiver, the client receives an image (B) which supplies information on the available services, and for each proposed service the image (B) supplies a hyperlink for the selection of the service,
   c. the client selects, by means of said hyperlink, a specific service,
   d. on the screen of his receiver, the client receives an image (C) which supplies information on the supply mode for the service and which comprises at least one hyperlink for the selection of each specific mode, at least one of said modes being supplied for a specific cost,
   e. the client selects, by means of said hyperlink, a specific mode,
   f. the provider sends to the client the requested service, in accordance with the selected mode,
   g. at the end of the time period employed for using the requested service, the provider once again sends the image (B),
   h. the cycle is repeated until the client selects a different domain or closes said on-line connection.
2. Method according to claim 1, characterized in that the client selects the time to receive the requested service.
3. Method according to claim 2, characterized in that said image (C) includes the cost connected with each supply mode.
4. Method according to claim 3, characterized in that it includes the following steps:
   i. the client selects the mode which includes the payment of the service cost, authorizing, by means of said selection, the charge of the relative cost on his own deposit account,

j. the provider withdraws said amount from said account and sends, to the client screen, an image (E) that contains the information relative to the outcome of the operation,

5. Method according to claim 1, characterized in that the step a) includes the following steps:

k. the client activates an on-line connection between his receiver device and a data transmission network,

l. the client receives, on the screen of his receiver, an image (A) which comprises at least one field that can be edited for the insertion of a request for connection with a service provider,

m. the client compiles said editable field with the web address of the domain of a service provider which makes said services available on-line.

6. Method according to claim 2, characterized in that the client carries out said selections by interacting with the images which appear on the screen of his receiver.

7. Method according to claim 6, characterized in that the client performs said interaction by sending a signal in a specific point of said screen, by means of a remote control connected with said screen.

8. Method according to claim 6, characterized in that the client performs said interaction by sending a signal in a specific point of said screen, by means of a mouse connected with said screen.

9. Method according to claim 6, characterized in that the client performs said interaction by touching, with his hand, said screen in a specific point of the same.

INTERNATIONAL SEARCH REPORT

International application No
PCT/IT2012/000151

A. CLASSIFICATION OF SUBJECT MATTER
INV. H04N21/2543 H04N21/81 H04N21/6587
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02/102046 A2 (ORCA INTERACTIVE LTD [IL]; BAREL HAGGAI [IL]; GLICK YOSSI [IL]; FRIEDM) 19 December 2002 (2002-12-19) abstract section "Summary of the invention" page 4, line 8 - page 5, line 21 page 6, line 1 - page 7, line 20 Figure	1-9
X	US 2003/226140 A1 (CONTARINO ROSARIO D [GB]) 4 December 2003 (2003-12-04) abstract [0011], [0012], [0023]-[0027], [0038], [0039], [0043]	1-9

-/--

[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

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

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

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
12 November 2012	20/11/2012

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	La, Valérie

INTERNATIONAL SEARCH REPORT

International application No
PCT/IT2012/000151

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 97/12486 A1 (BOSTON TECH INC [US]) 3 April 1997 (1997-04-03) page 6, line 24 - line 33 page 9, line 22 - line 37 page 15, line 13 - line 25 -----	1-9

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/IT2012/000151

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 02102046 A2	19-12-2002	AU 2002349117 A1	23-12-2002
		EP 1421530 A2	26-05-2004
		US 2002194065 A1	19-12-2002
		WO 02102046 A2	19-12-2002
US 2003226140 A1	04-12-2003	CA 2430310 A1	30-11-2003
		JP 2004133884 A	30-04-2004
		US 2003226140 A1	04-12-2003
WO 9712486 A1	03-04-1997	AU 7246996 A	17-04-1997
		EP 0852880 A1	15-07-1998
		JP H11512903 A	02-11-1999
		US 6006257 A	21-12-1999
		WO 9712486 A1	03-04-1997