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61/441,555 10 February 2011 (10.02.2011) US(71) Applicant (for all designated States except US): **VISA INTERNATIONAL SERVICE ASSOCIATION** [US/US]; 900 Metro Center Blvd., Foster City, CA 94404-2172 (US).

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Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

[Continued on next page]

(54) Title: ELECTRONIC COUPON ISSUANCE AND REDEMPTION APPARATUSES, METHODS AND SYSTEMS

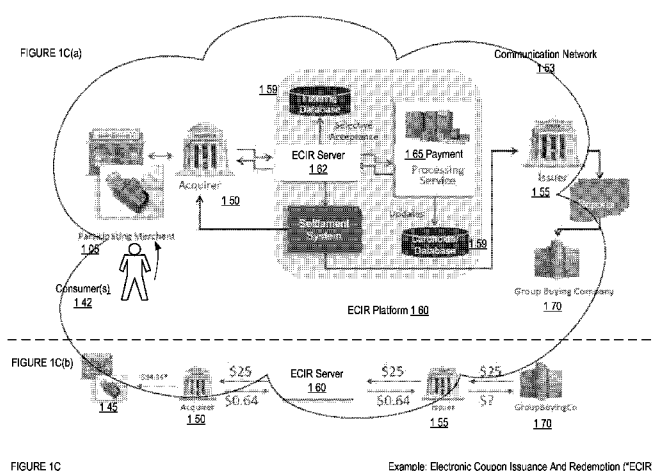


FIGURE 1C

Example: Electronic Coupon Issuance And Redemption ("ECIR")

(57) Abstract: The ELECTRONIC COUPON ISSUANCE AND REDEMPTION APPARATUSES, METHODS AND SYSTEMS ("ECIR") transforms user coupon purchase and redemption request inputs via ECIR components into coupon issuance, transaction, and analytics outputs. In some embodiments, the ECIR may receive an inventory request from a coupon program manager, including at least a virtual coupon issue criteria. The ECIR may generate one or more account identifiers, and transmit the account identifiers to the coupon program manager. The ECIR may receive, from the coupon program manager, an issue request along with the purchase information, which may include one or more purchase identifiers corresponding to one or more buyers. The ECIR may determine when the received purchase information satisfies the virtual coupon issue criteria, when it satisfies the criteria, the ECIR may issue one or more virtual coupons having the one or more account identifiers, and transmit the issued virtual cards to the coupon program manager.



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4 October 2012

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 12/24772

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - G06Q 30/00 (2012.01)

USPC - 705/14.1

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)
USPC: 705/14.1Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC: 705/1.1, 14.1 (keyword limited - see terms below)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

PubWEST (PGPB, USPT, USOC, EPAB, JPAB); GOOGLE; GoogleScholar

Search Terms: coupon, electronic, virtual, issue, generate, transmit, buying, purchase, inventory, request, criteria, parameter, card, single use, once, permanent, account, identifier

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2006/0163349 A1 (Neugebauer) 27 July 2006 (27.07.2006), entire document, especially; abstract, para. [0034]-[0036], [0120], [0152]	1 - 12
Y	US 2010/0185505 A1 (Sprogoe et al.) 22 July 2010 (22.07.2010), entire document, especially; abstract, para. [0007]-[0015], [0035]-[0041], [0043]	1 - 12
A	US 2002/0116271 A1 (Mankoff) 22 August 2002 (22.08.2002), entire document	1 - 12
A	US 2009/0061884 A1 (Rajan et al.) 05 March 2009 (05.03.2009) entire document especially Abstract, para [0008]-[0010], para [0034]-[0035], para [0050], para [0145]-[0146]	1-12

☐ Further documents are listed in the continuation of Box C.

* Special categories of cited documents:	"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
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier application or patent but published on or after the international filing date	"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
"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)	"&" document member of the same patent family
"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	

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 12/24772

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

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

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

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

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

Group 1: Claims 1-12 directed to a processor-implemented method for virtual prepaid coupon account issuance when the received purchase information satisfies the virtual coupon issue criteria and issue one or more virtual coupons having the one or more account identifiers and transmit the issued virtual cards to the coupon program manager.

Group 2: Claim 13 directed to a virtual prepaid coupon account authorization system wherein it is determined based on the coupon program identifier if the coupon is authorized for redemption at the merchant; and if the value associated with the coupon program identifier is sufficient for redemption, approve the coupon for redemption based on the determination.

Group 3: Claims 14-20 directed to a processor-implemented method for virtual coupon issuance analysis based on a request associated with virtual coupon issuance, selecting a first virtual prepaid coupon account used to redeem the virtual coupon issuance, determining a first card-based financial account associated with the first virtual prepaid coupon account, aggregating first card transaction data records from the first card-based financial account, determining a first coupon redemption date of the first virtual coupon issuance and calculating a first number of transactions before and post the first coupon redemption date using the first card transaction data records.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

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