

VIA EFS

NEW APPLICATION TRANSMITTAL FORM

Sir:

Transmitted herewith for filing is the patent application of

For (title): **INTELLIGENT CLEARING NETWORK**

Inventor(s): **Richard B. Thibedeau; Brian Schulte; Michael Skelton; Gary Oakley; and Jon Robertson**

Enclosed are the following:

- ☒ Application Cover Page
- ☒ **80** pages of Specification that consists of, **74** pages of Description, **5** pages of Claims and 1 page of Abstract;
- ☒ **34** sheet of drawings;
- ☐ Inventor(s) Declaration;
- ☐ Preliminary Amendment;
- ☐ Certified Copy of priority document(s);
- ☐ English language translation of priority document;
- ☒ Application Data Sheet;
- ☒ Form PTO 1449 (Cited non-U.S. art (if applicable) included in Parent Application);
- ☐ Assignment and Recordation Form Cover Sheet;
- ☐ Return Receipt Postcard;
- ☐ Other:

Assignment Data

- ☒ An assignment of the invention to CONNECTICUT INNOVATIONS, INCORPORATED
 - ☐ is attached.
 - ☐ will follow.
 - ☒ has been previously filed.

Small Entity Status

- ☐ Applicant claims small entity status.

Fees

☒ Utility

☐ Reissue

☐ Design

Basic Filing Fee \$ 280.00

Excess Claim Fee

	Number Filed		Number Extra	Rate	
Total Claims	20 -20 =	0	x	\$ 80.00	\$ 0.00
Independent Claims	3- 3 = 0	0	x	\$ 420.00	\$ 0.00

☐ Multiple Dependent Claim Fee (\$450.00) \$

Examination Fee \$ 720.00

Patent Search Fee \$ 600.00

Exceeding of 100 sheets of paper fee (\$310.00 per each 50 sheets) \$

Assignment Recordal 1 x \$ 40.00 \$

TOTAL FEES \$1600.00

- ☐ A check in the amount of \$_____ in payment of the filing fee is enclosed.
- ☒ Charge \$1600.00 to Deposit Account No. 50-1924;
- ☒ The Commissioner is hereby authorized to charge any additional fees under 37 C.F.R. 1.16 and 1.17 which may be required for this communication or during the entire pendency of this patent application, or credit any overpayment, to Deposit Account No. 50-1924;

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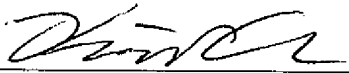
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1. The undersigned hereby certifies that I am:
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Correspondence

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6/6/13
Date



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Electronic Patent Application Fee Transmittal

Application Number:

Filing Date:

Title of Invention:

INTELLIGENT CLEARING NETWORK

First Named Inventor/Applicant Name:

Richard B. Thibedeau

Filer:

Robert J. Mauri/blair ribeiro

Attorney Docket Number:

068A.0005.U1(US)

Filed as Large Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Utility application filing	1011	1	280	280
Utility Search Fee	1111	1	600	600
Utility Examination Fee	1311	1	720	720

Pages:

Claims:

Miscellaneous-Filing:

Petition:

Patent-Appeals-and-Interference:

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				1600

Electronic Acknowledgement Receipt

EFS ID:	15964489
Application Number:	13911175
International Application Number:	
Confirmation Number:	1021
Title of Invention:	INTELLIGENT CLEARING NETWORK
First Named Inventor/Applicant Name:	Richard B. Thibedeau
Customer Number:	29683
Filer:	Robert J. Mauri/blair ribeiro
Filer Authorized By:	Robert J. Mauri
Attorney Docket Number:	068A.0005.U1(US)
Receipt Date:	06-JUN-2013
Filing Date:	
Time Stamp:	11:01:41
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$ 1600
RAM confirmation Number	9285
Deposit Account	501924
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part (if Applicable)	Pages (if Applicable)
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1	Drawings-only black and white line drawings	068A0005U1US- FormalDrawings-06062013.PDF	602443 cc76e46055a16092a3b2e99e0a8fe2cfba4210fb	no	34
Warnings:					
Information:					
2	Information Disclosure Statement (IDS) Form (SB08)	068A0005U1US- PTO1449-06062013.PDF	144963 61e8b3e2f2a28a50bc14b5e5ee112aa8809de2ea	no	2
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Information:					
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3	Specification	068A0005U1US- Applicationasfiled-06062013.PDF	6982944 11d7a9cbbf1067760ca526aba89690bfc28bebd	no	81
Warnings:					
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4	Application Data Sheet	068A0005U1US- ApplicationDataSheet-06062013.PDF	196409 b07c099386a86cd5695b114620f29122ad3b0191	no	6
Warnings:					
Information:					
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5	Transmittal of New Application	068A0005U1US- ApplicationTransmittal-06062013.PDF	68899 30b1cb955cbbb5173a7bee47905799ca5aa6c804	no	3
Warnings:					
Information:					
6	Fee Worksheet (SB06)	fee-info.pdf	33134 16ca985066f1c03c6eec9c12e273d42b76c4c237	no	2
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Total Files Size (in bytes):			8028792		

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

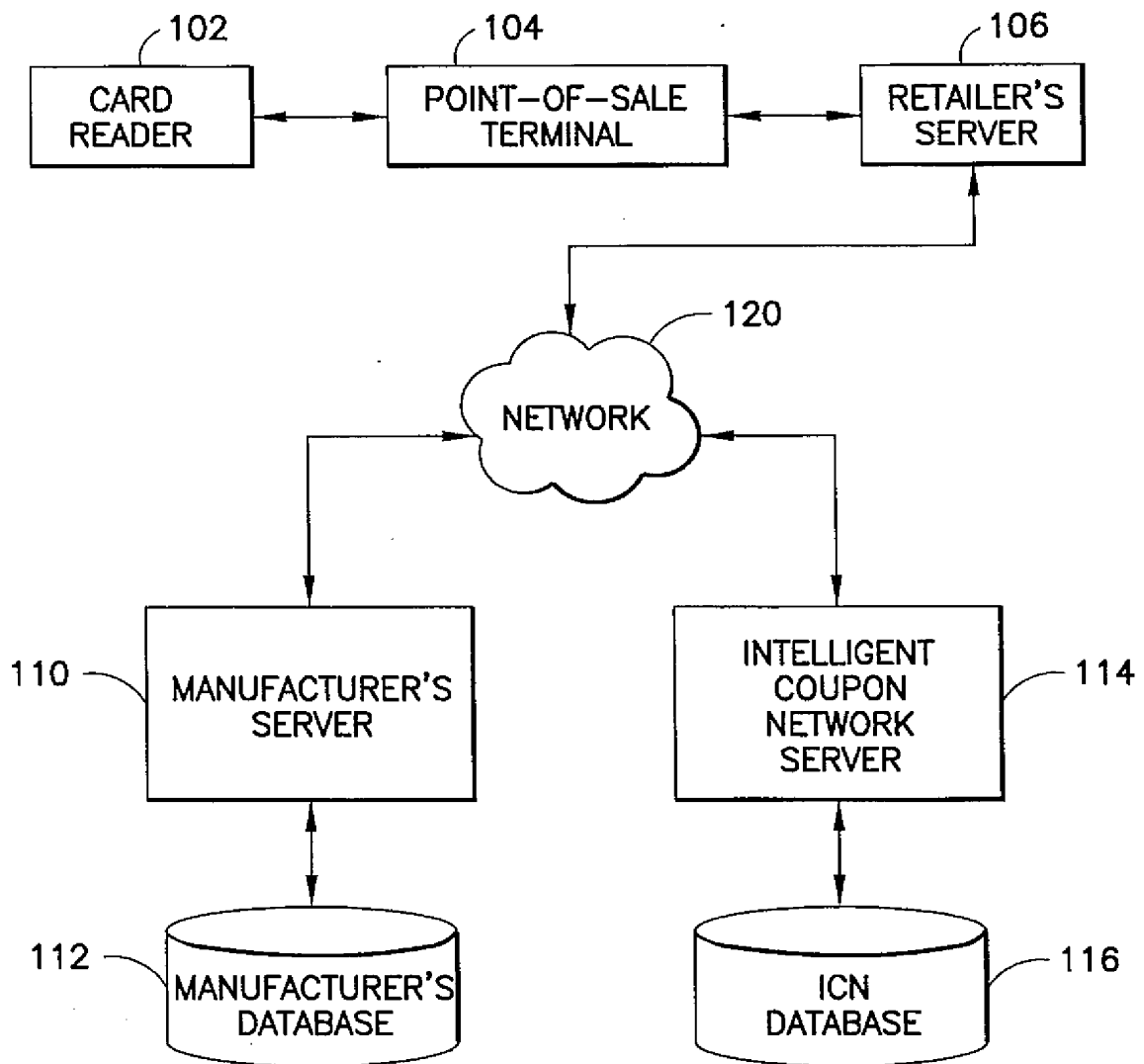


FIG.1

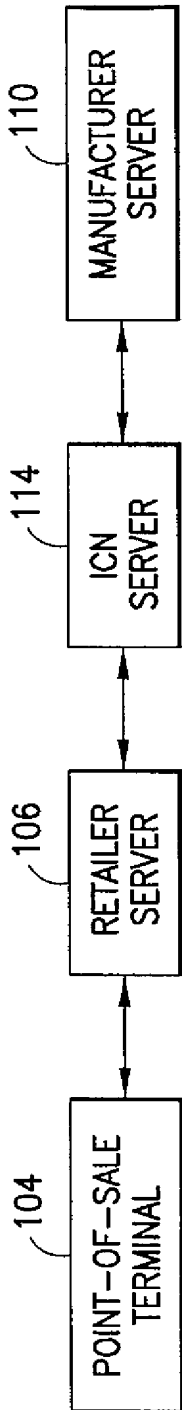


FIG. 2A

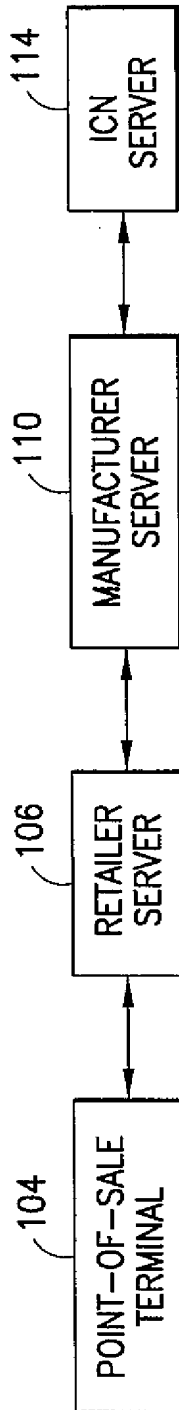


FIG. 2B

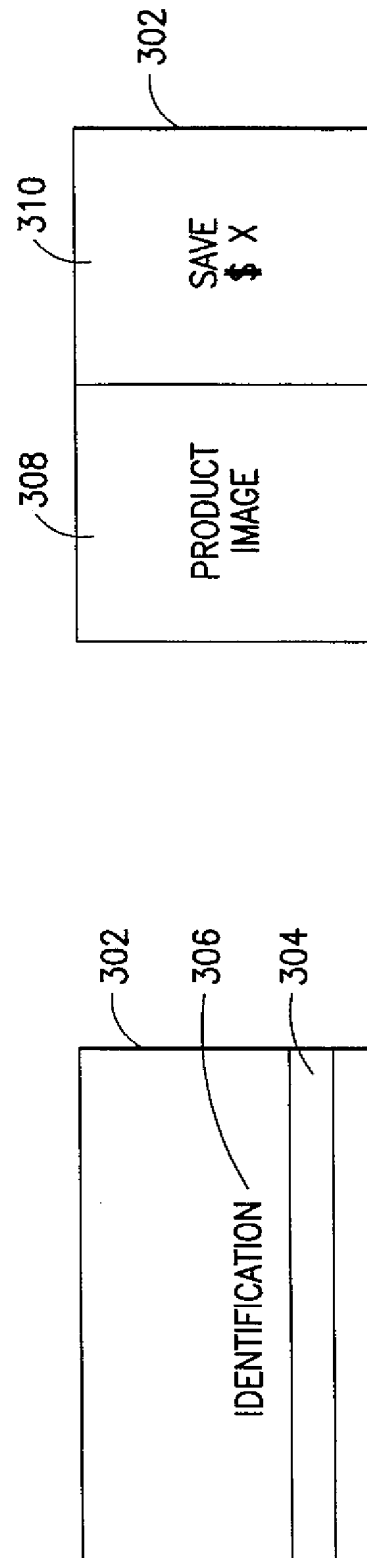


FIG. 3A

FIG. 3B

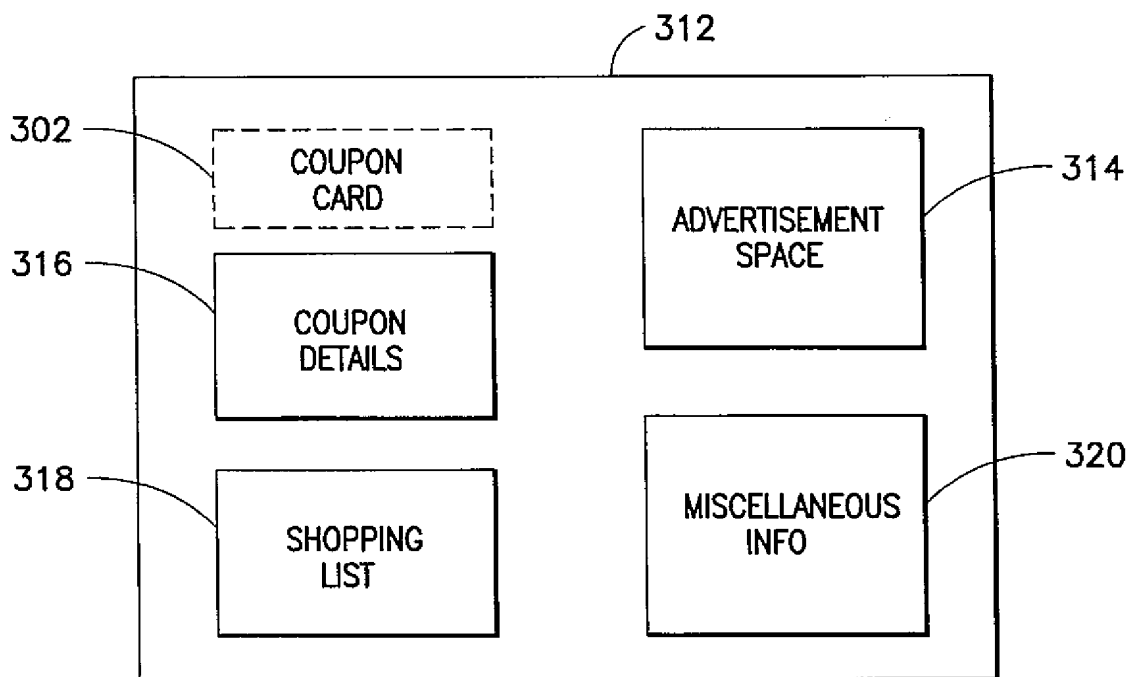


FIG. 4

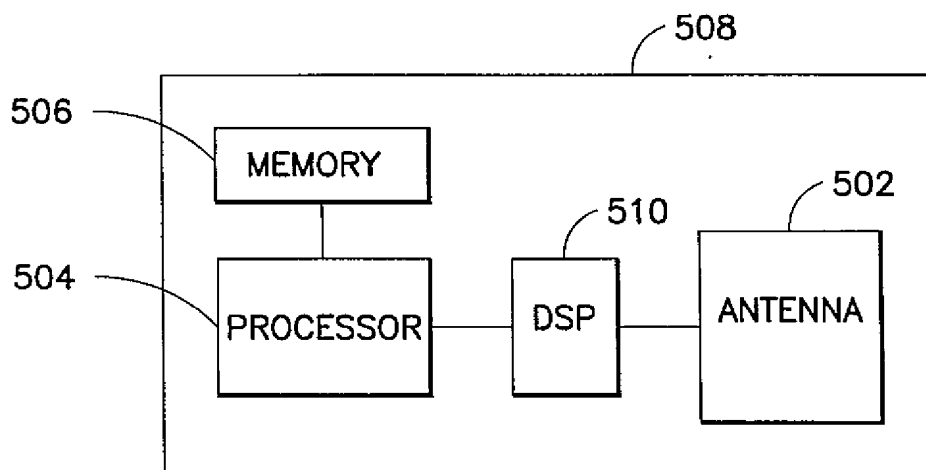


FIG. 5

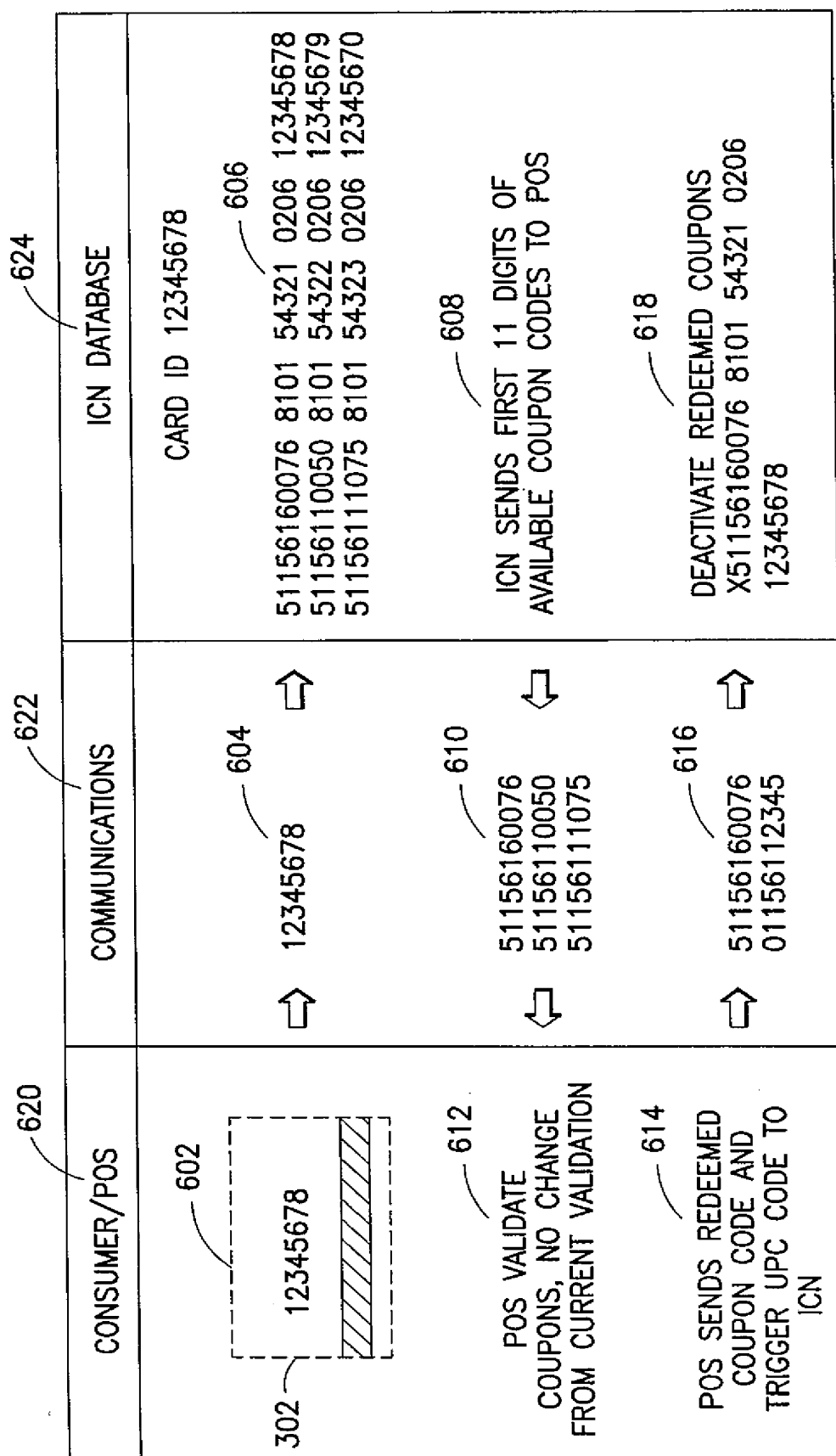


FIG.6

UNIFORM CODE COUNCIL SYSTEM 5 COUPON

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MANUFACTURE NUMBER				12843					TRANSMITTED TO POS FOR VALIDATION
FAMILY CODE				410					TRANSMITTED TO POS FOR VALIDATION
VALUE CODE				76					TRANSMITTED TO POS FOR VALIDATION
CHECK DIGIT				7					TRANSMITTED TO POS FOR VALIDATION
APPLICATION IDENTIFIER				(8101)					STORED IN ICN DATABASE
PRODUCT NSC				3					STORED IN ICN DATABASE
MOC CODE				72565					STORED IN ICN DATABASE
EXPIRATION DATE				0506 (MMYY)					STORED IN ICN DATABASE
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HOUSEHOLD IDENTIFIER				12345678					STORED IN ICN DATABASE

FIG.7

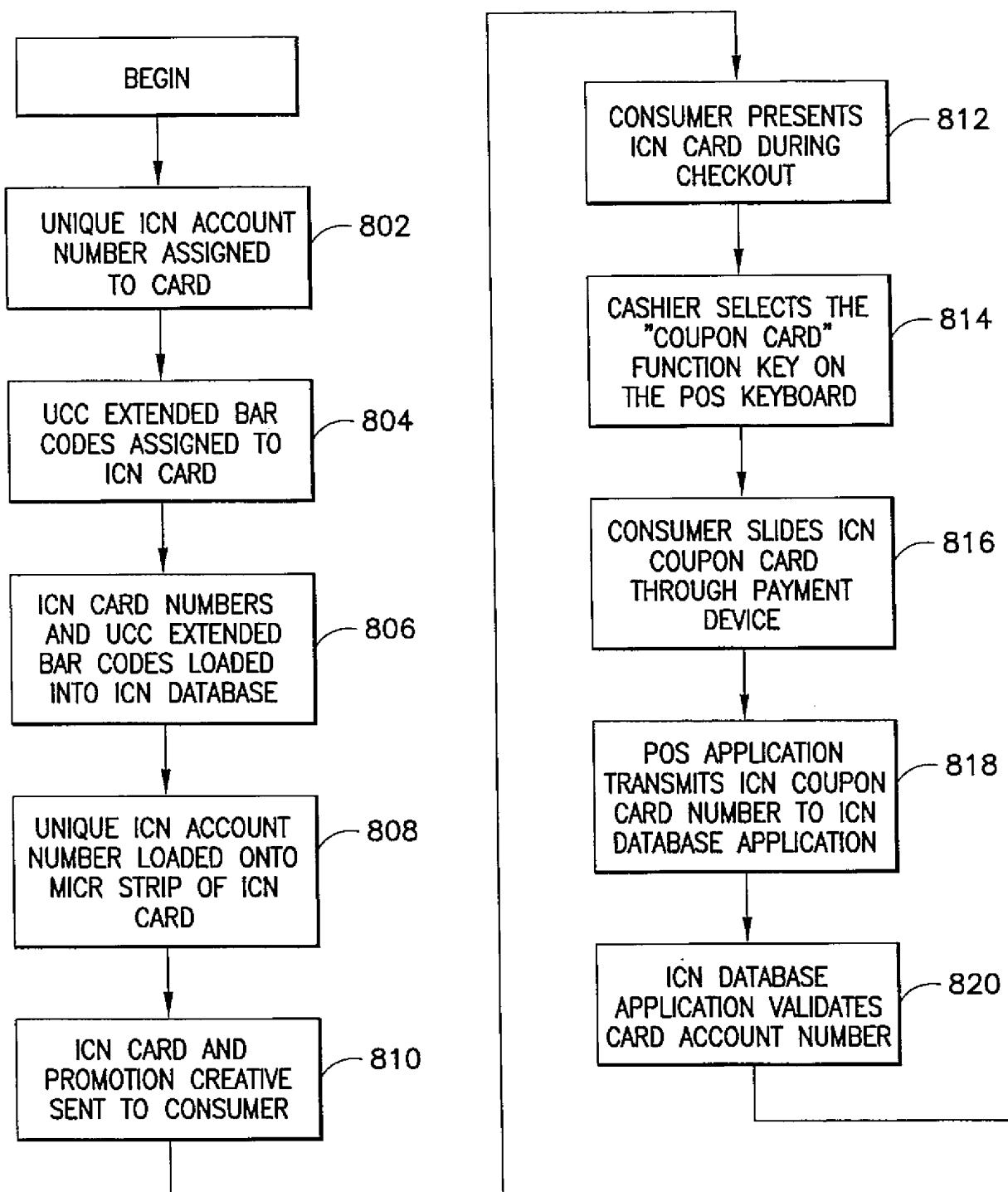


FIG. 8A FIG. 8B

FIG. 8

FIG. 8A

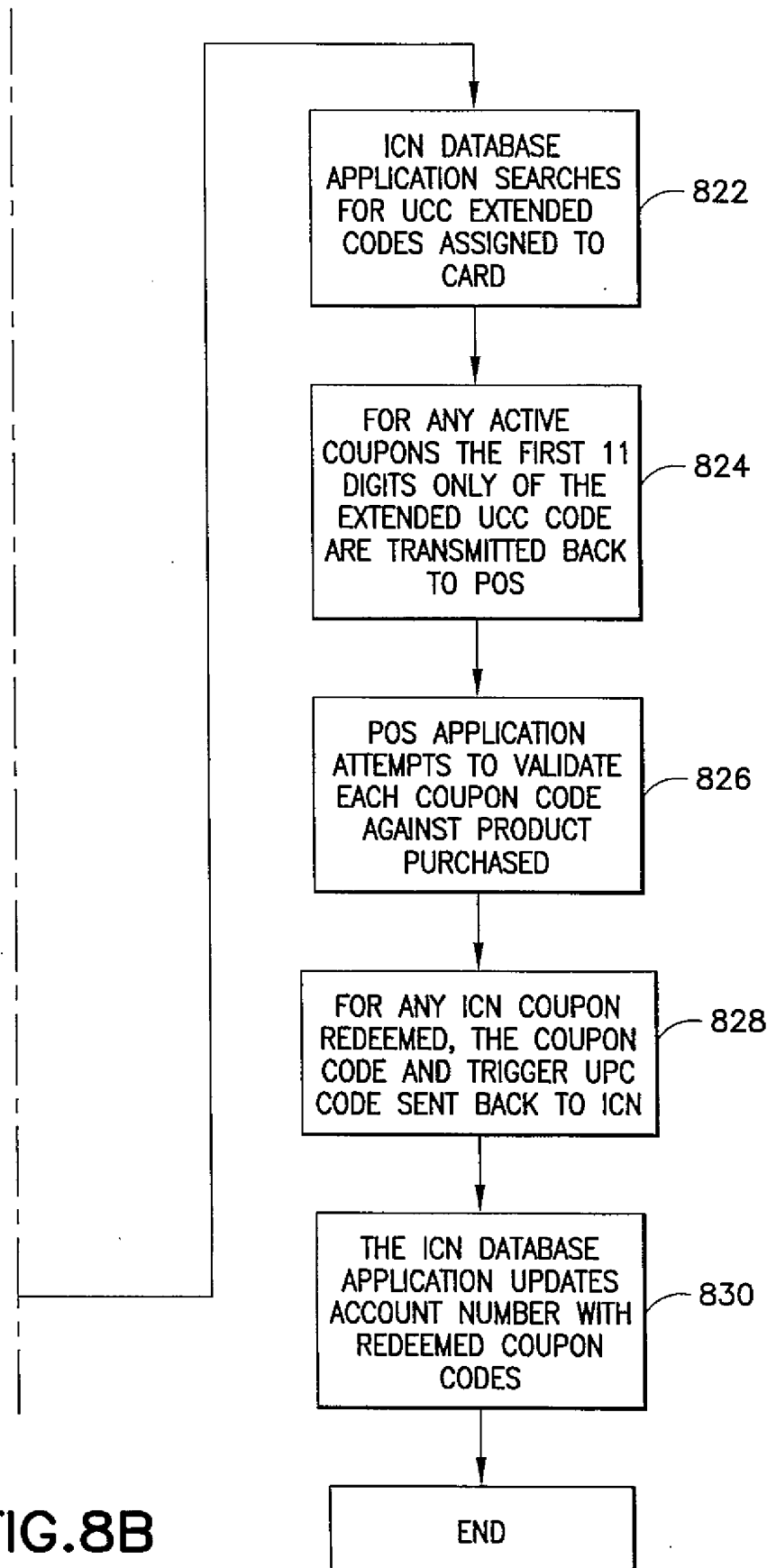


FIG. 8B

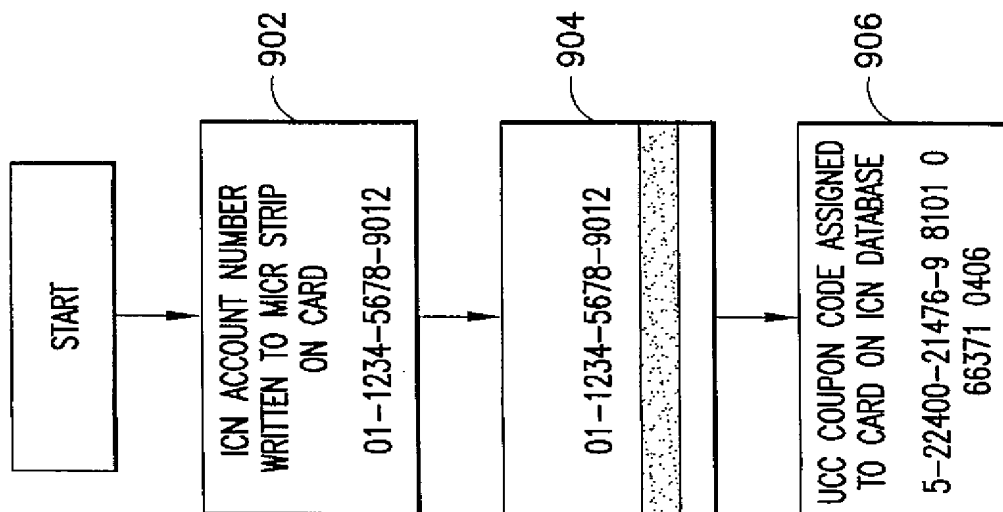


FIG. 9

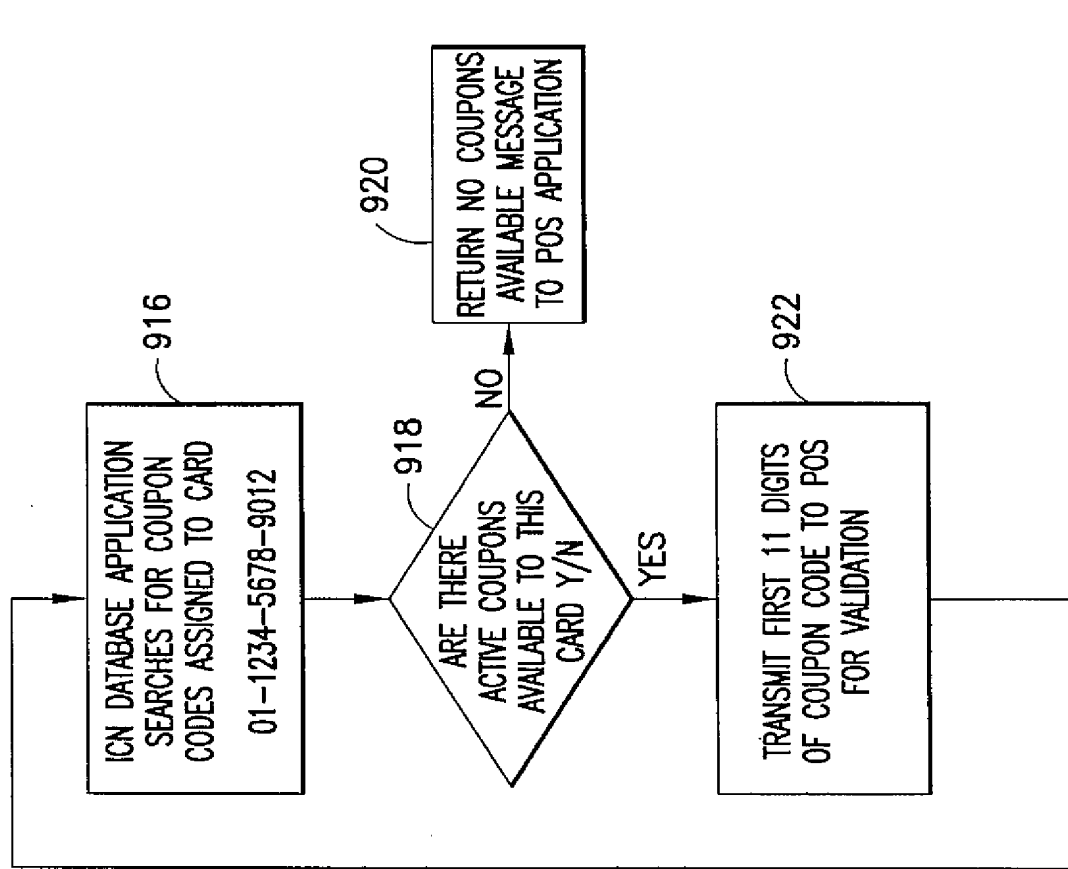


FIG. 9A

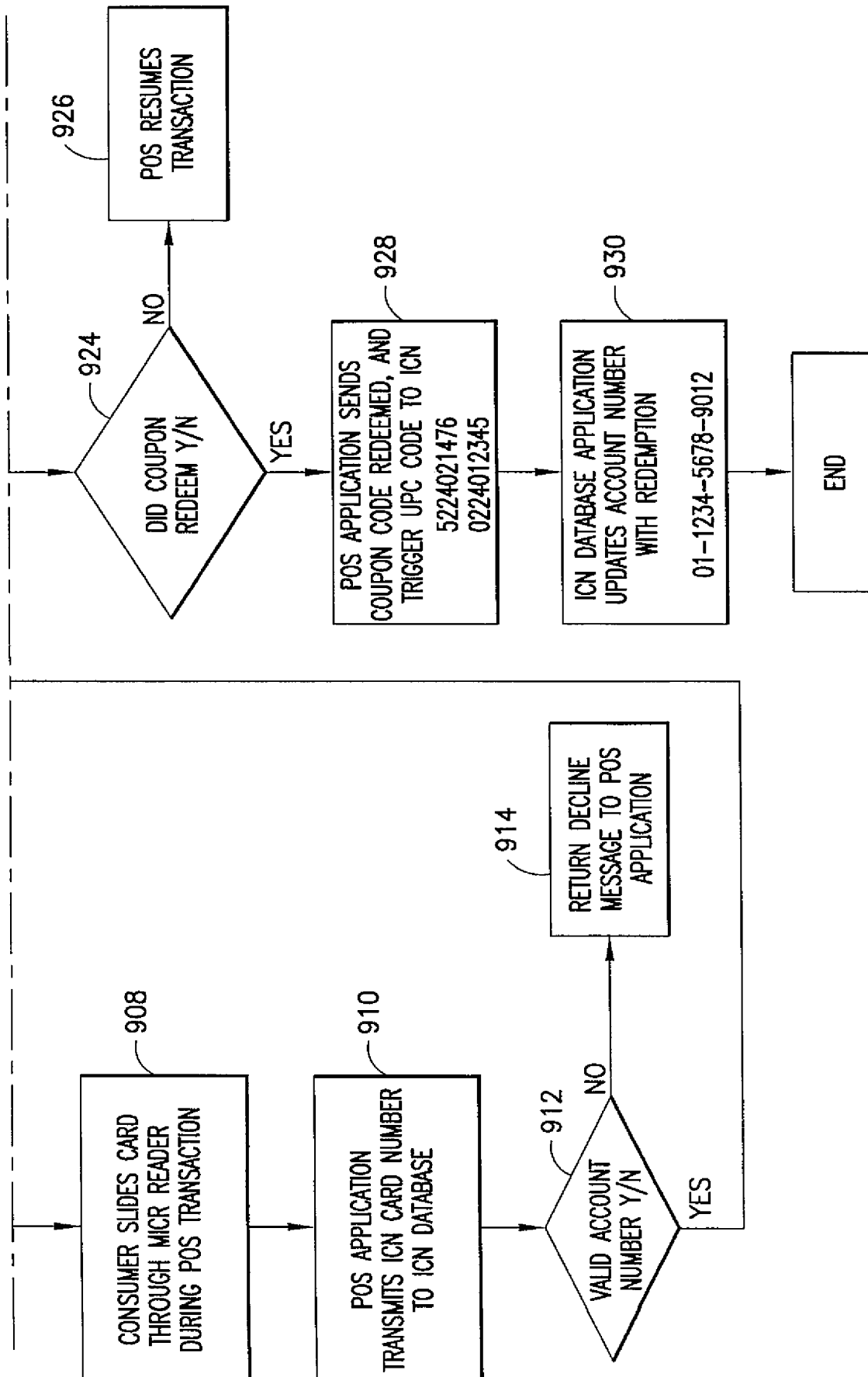


FIG. 9B

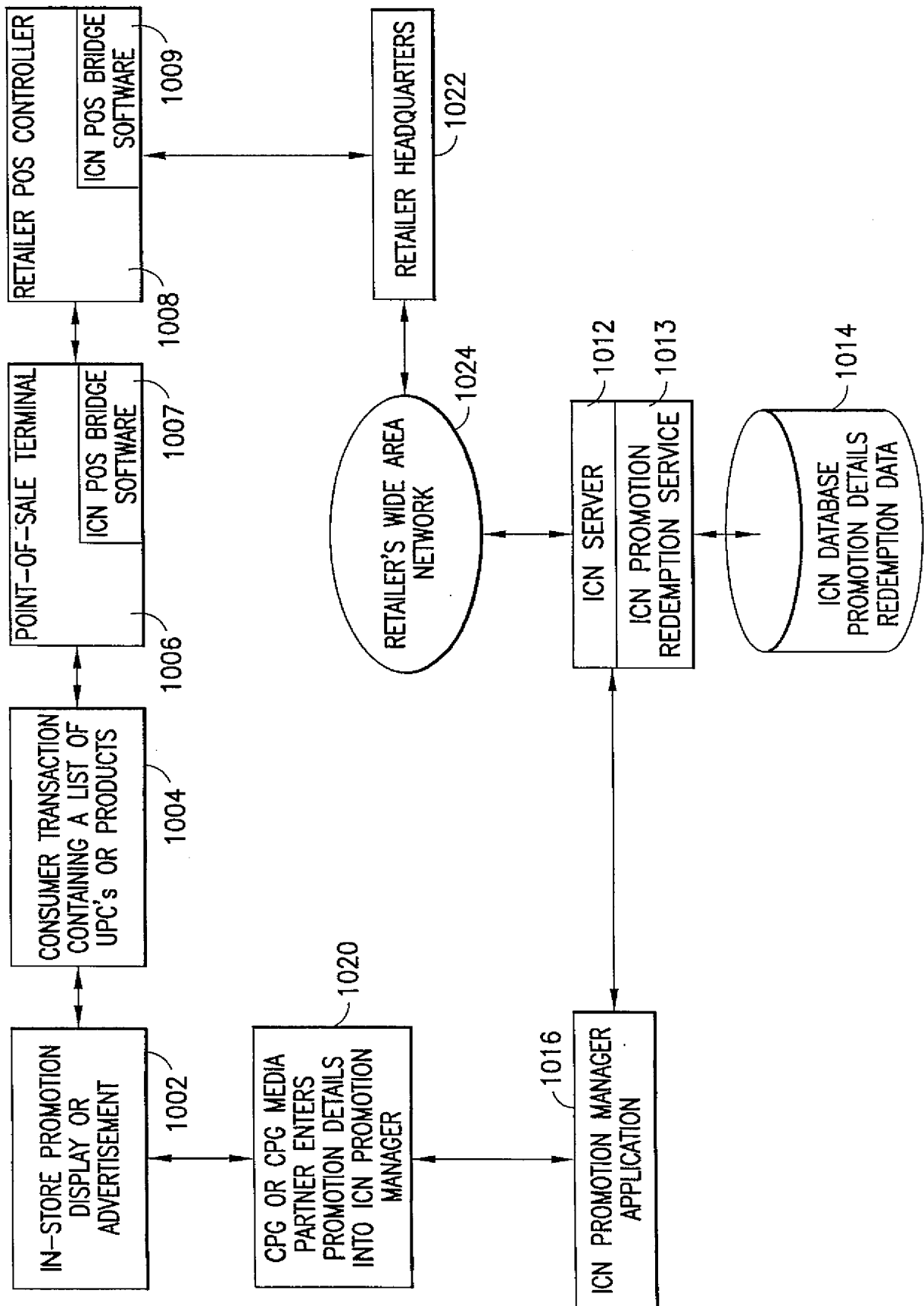


FIG.10

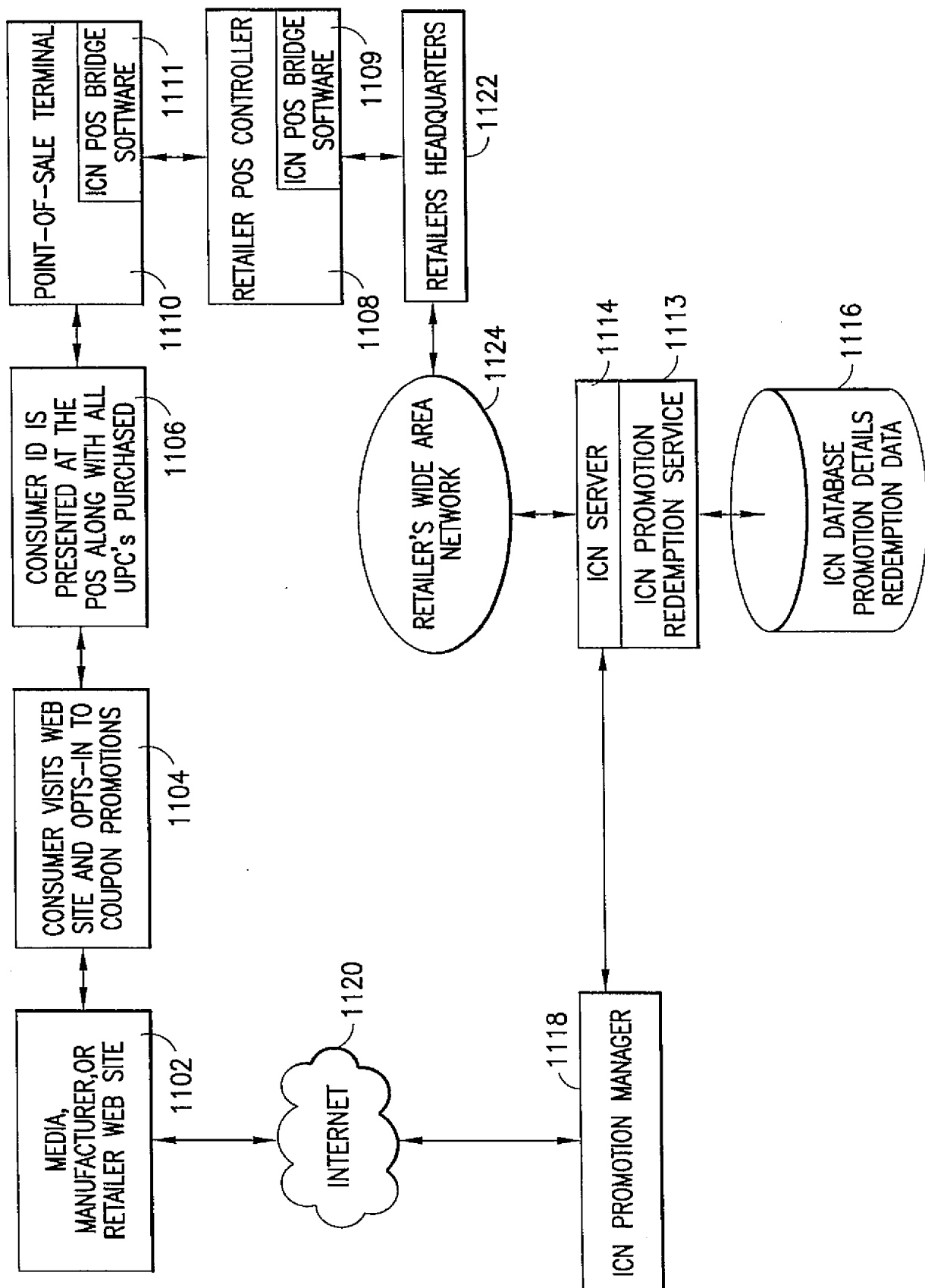


FIG.11

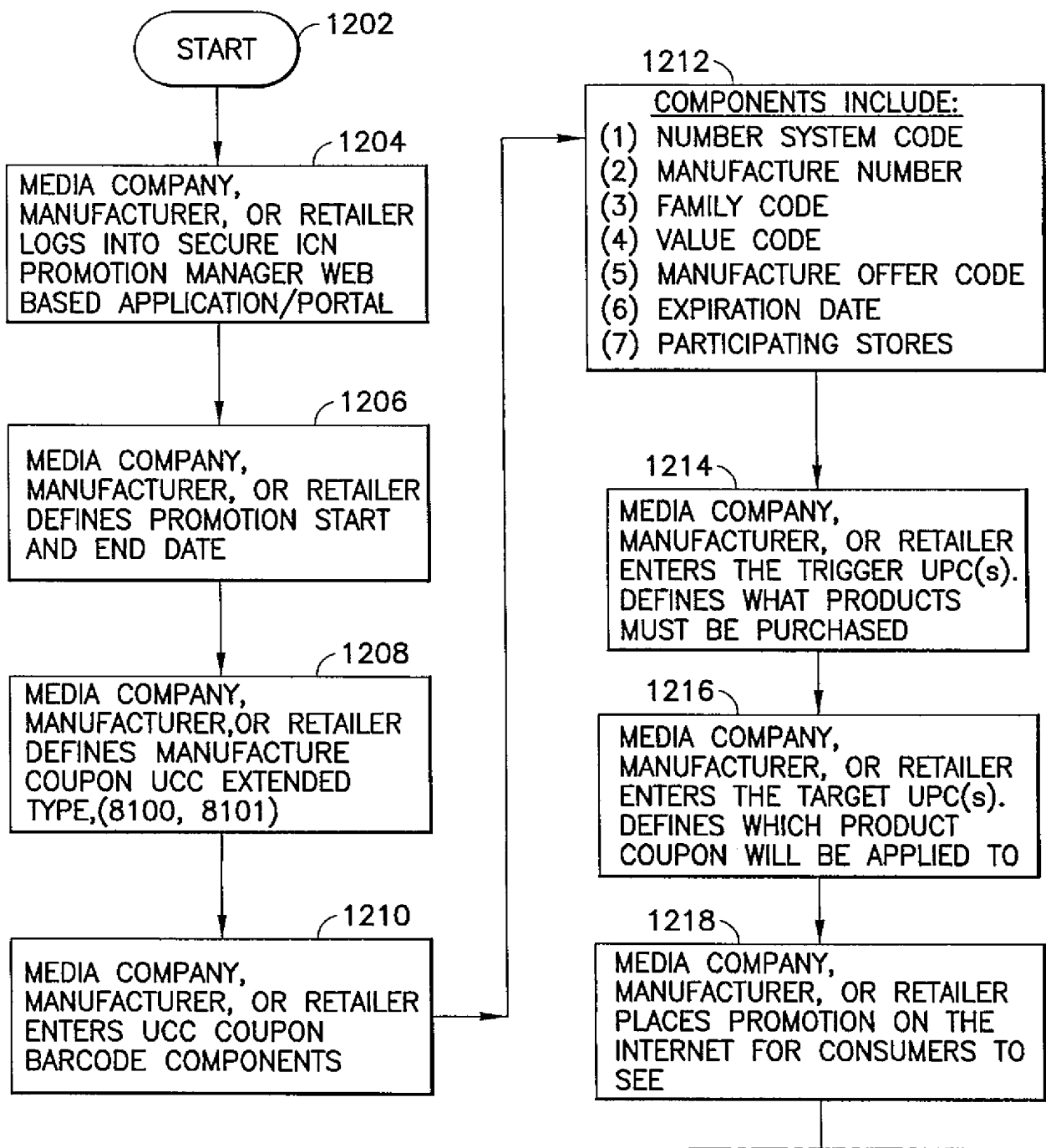


FIG.12A

FIG.12A

FIG.12B

FIG.12

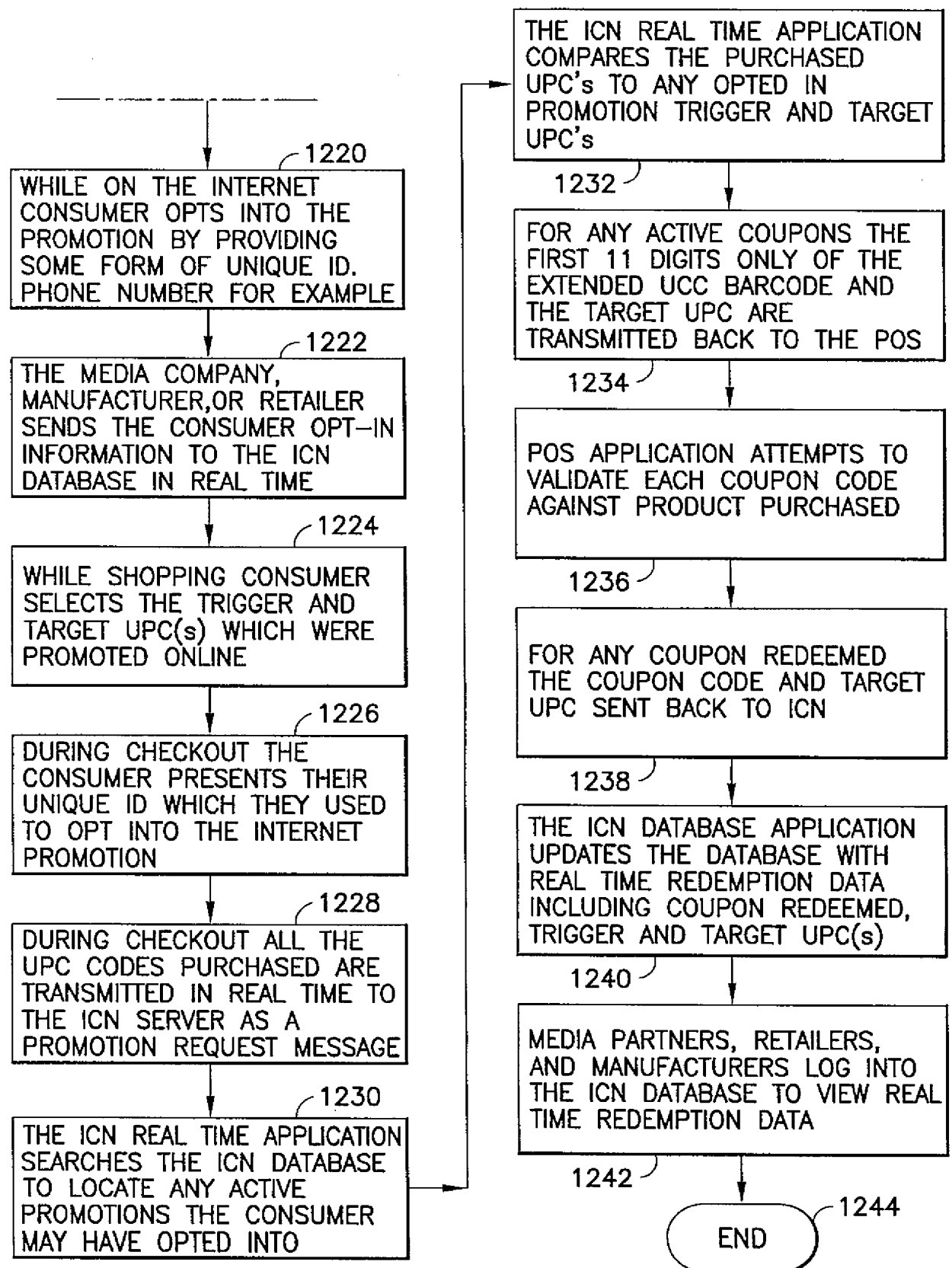


FIG.12B

ICN DATA FLOW

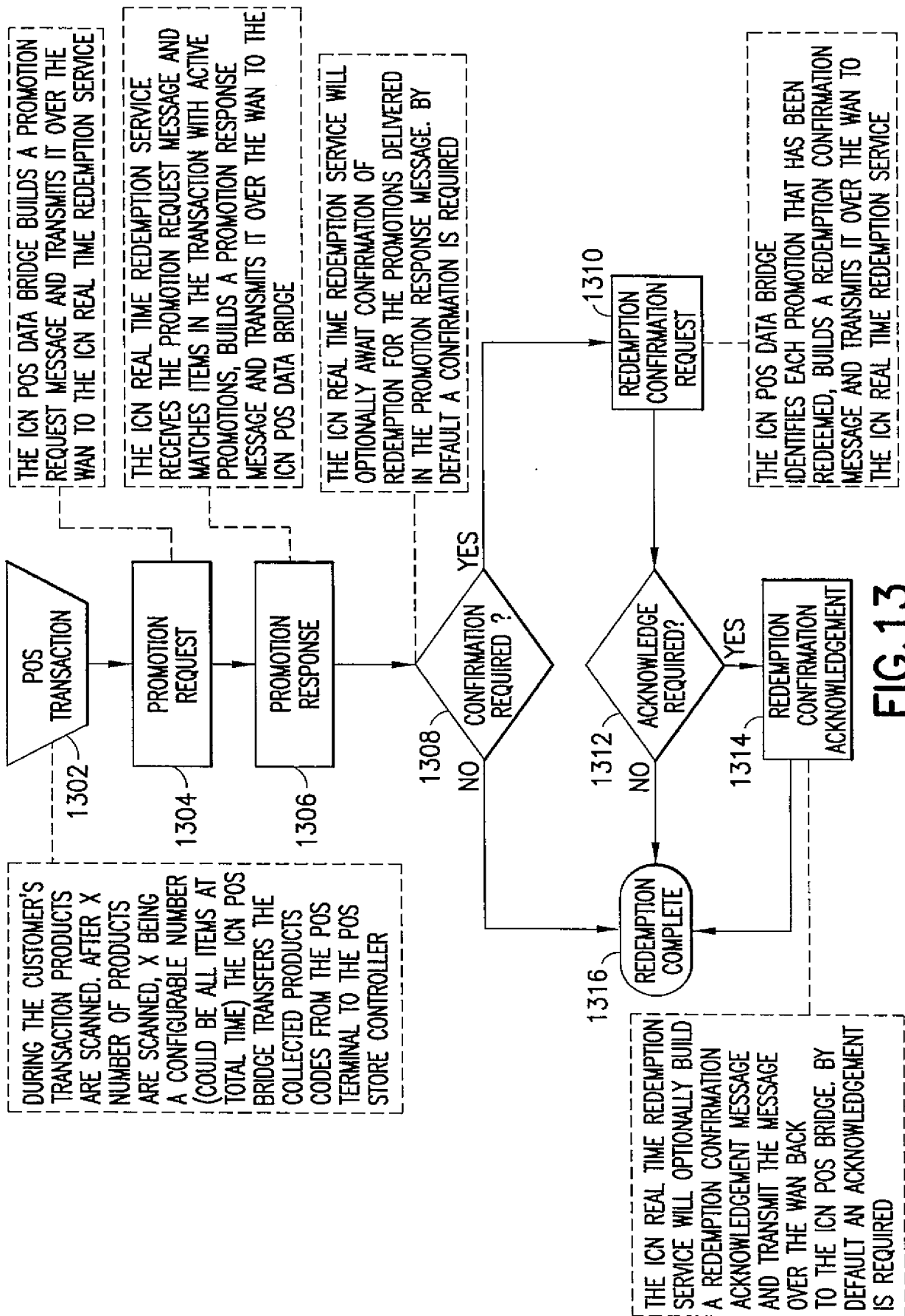


FIG.13

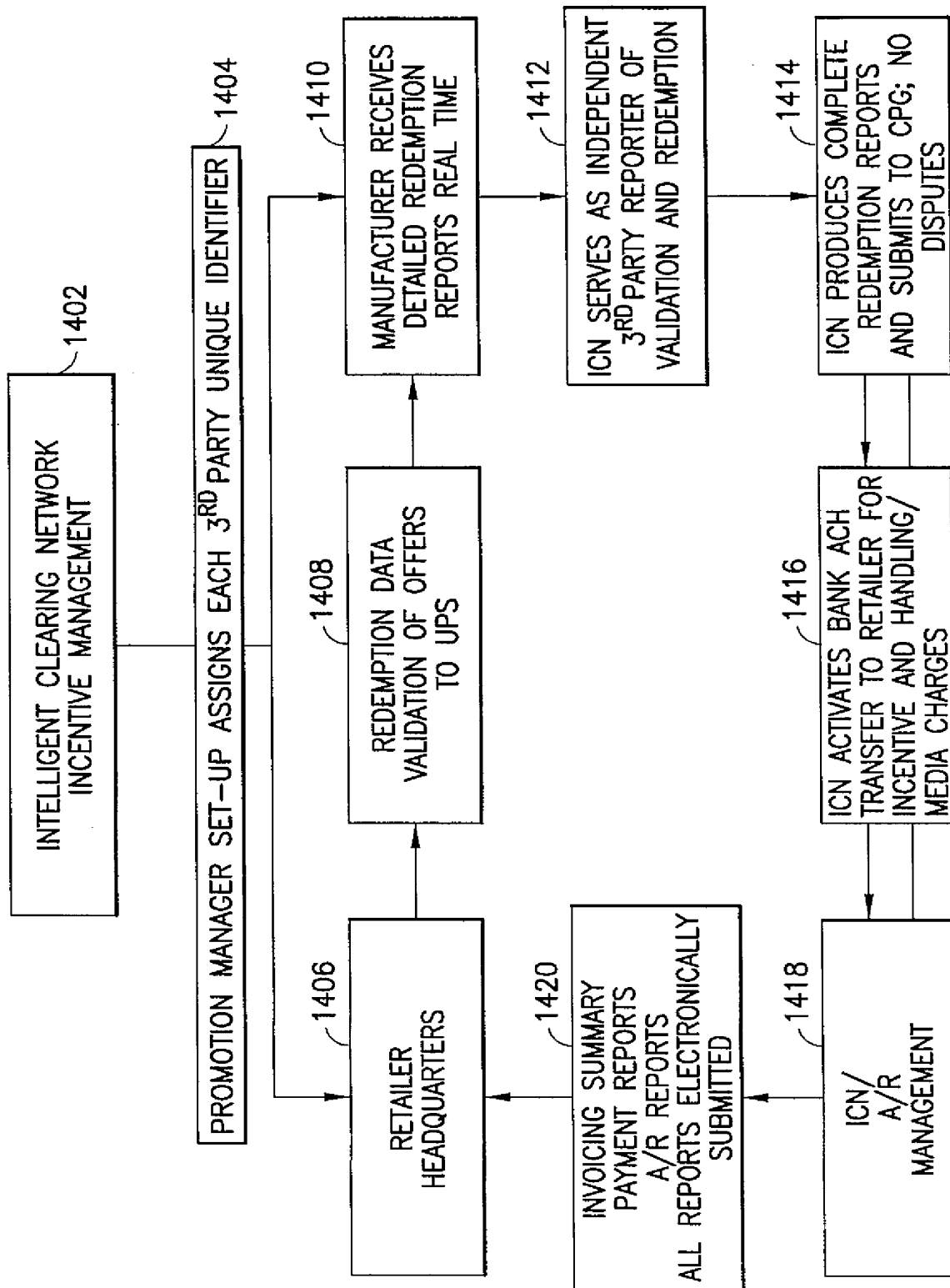


FIG.14

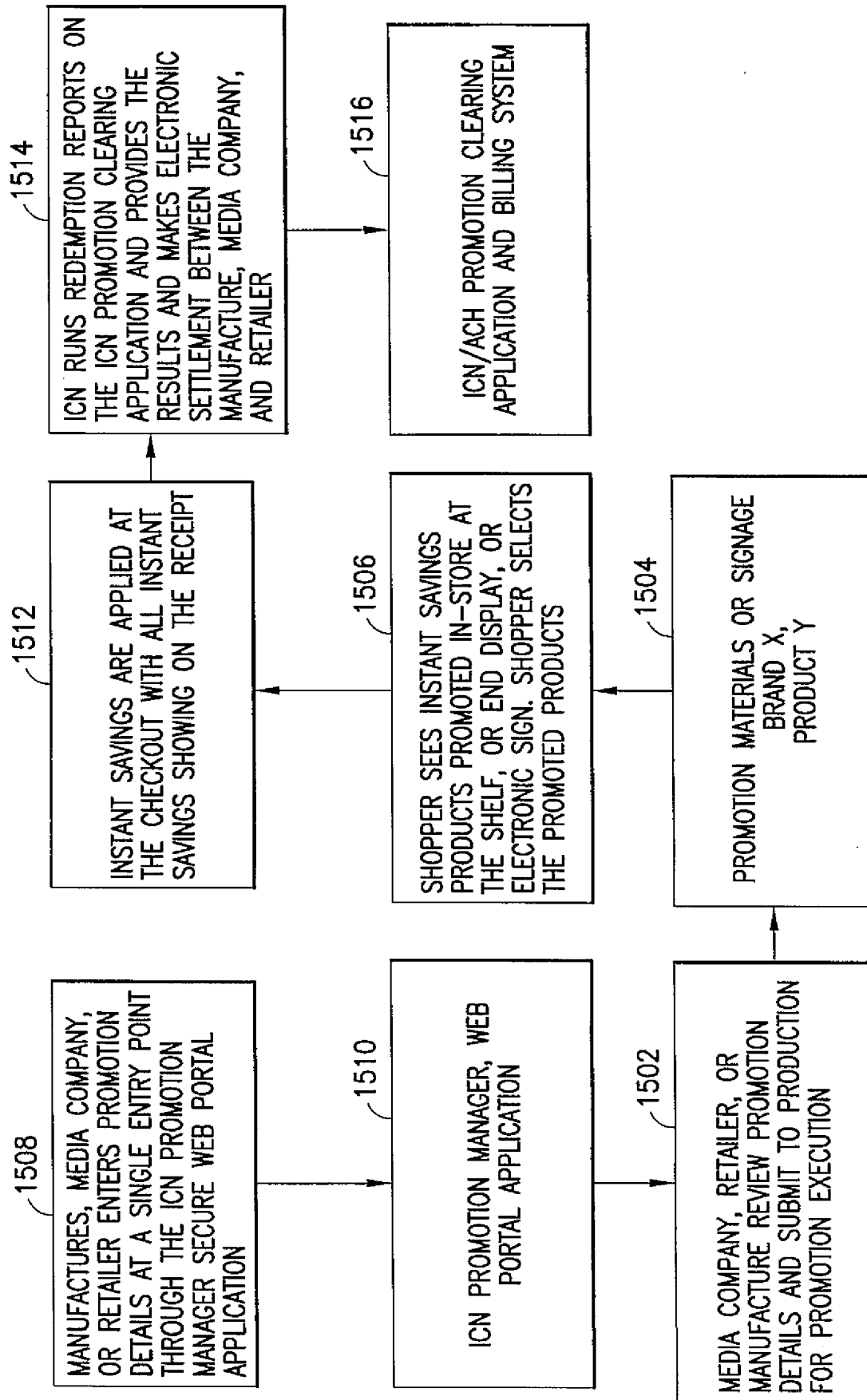


FIG.15

[illegible]

ICN SYSTEM SCHEMATIC

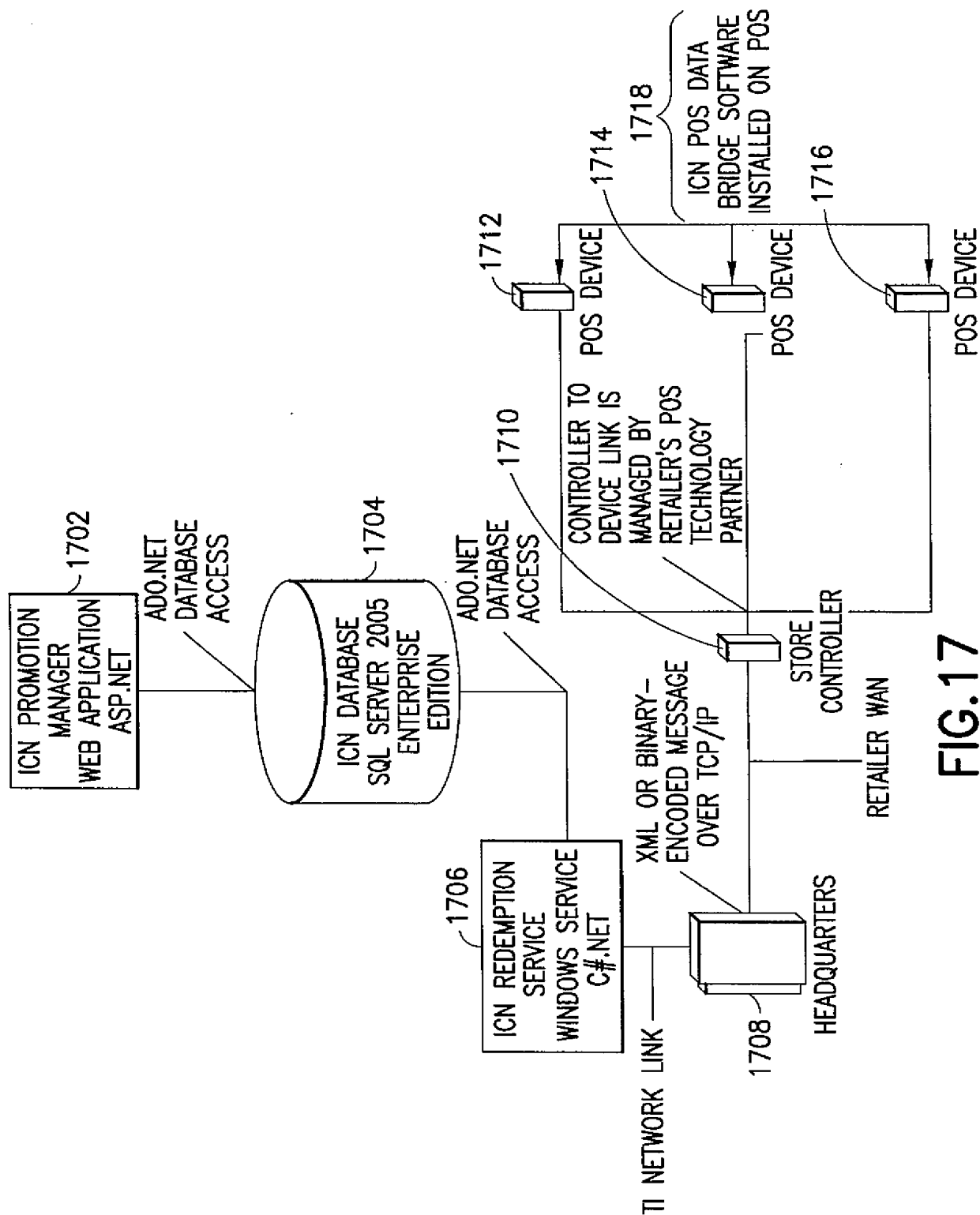


FIG.17

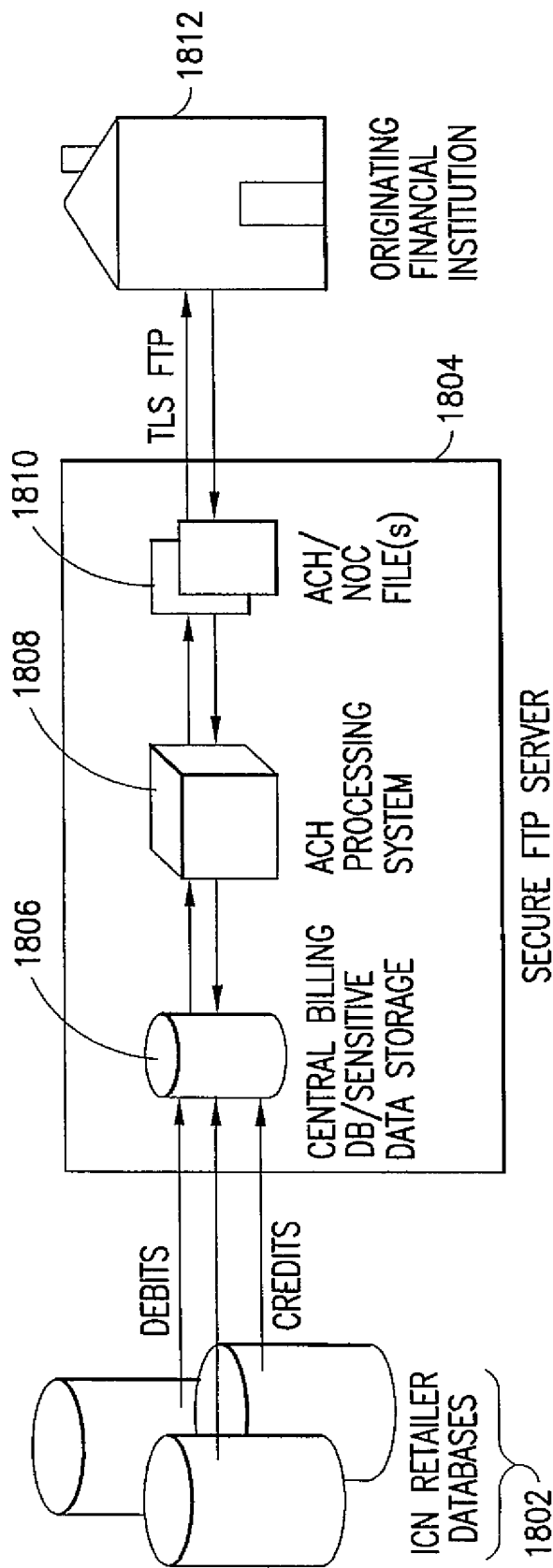


FIG. 18

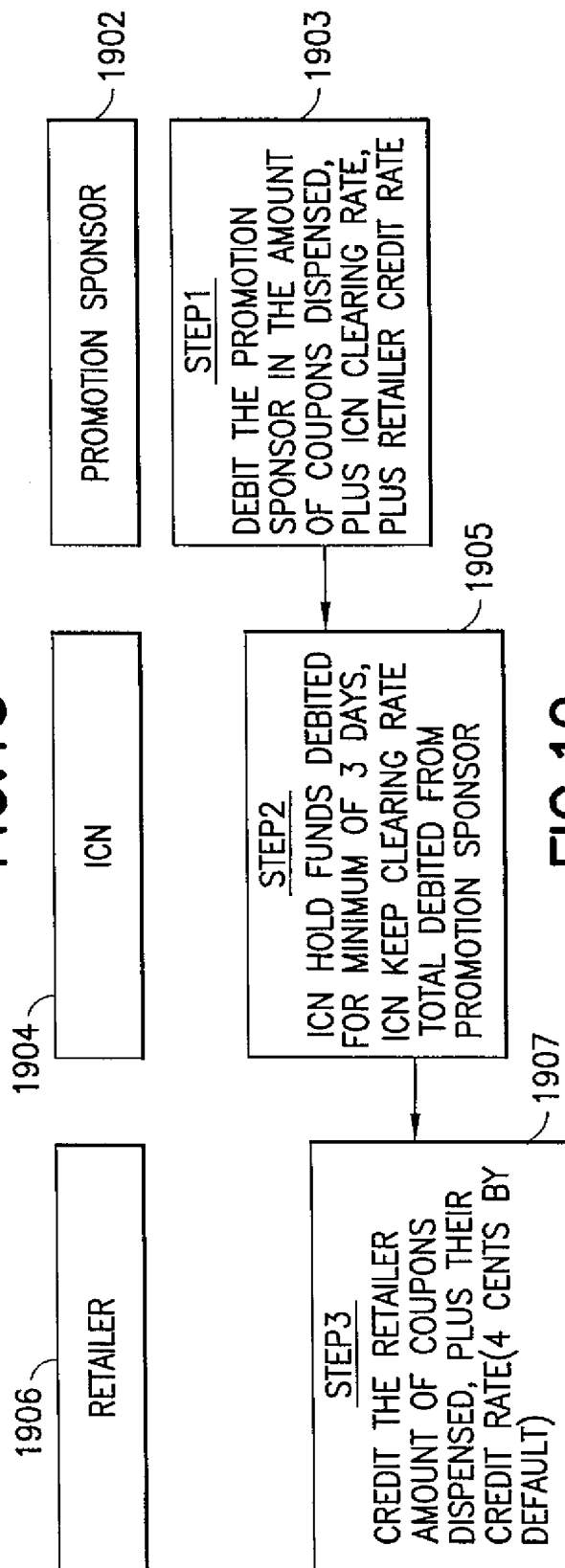


FIG. 19

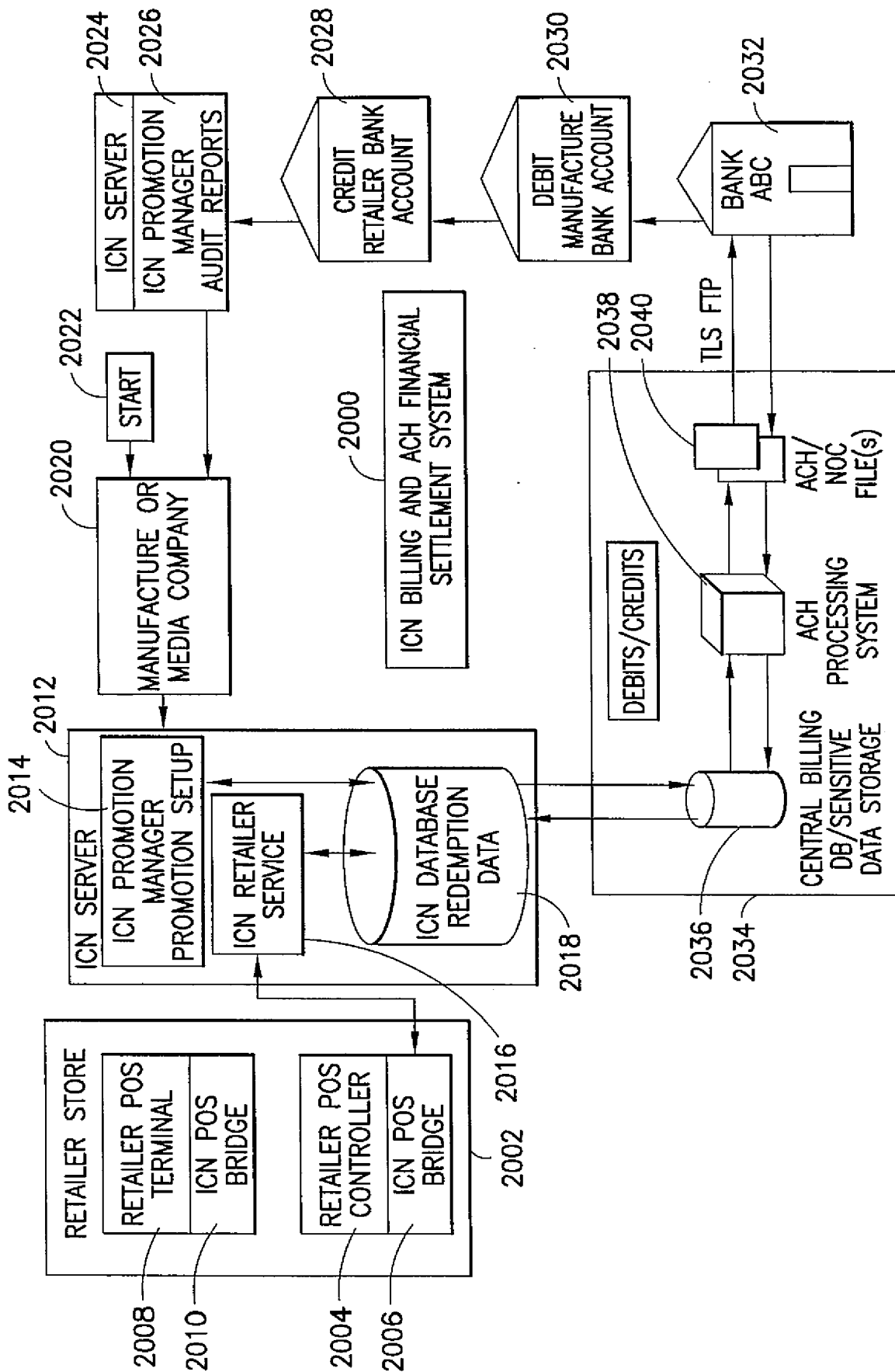


FIG.20

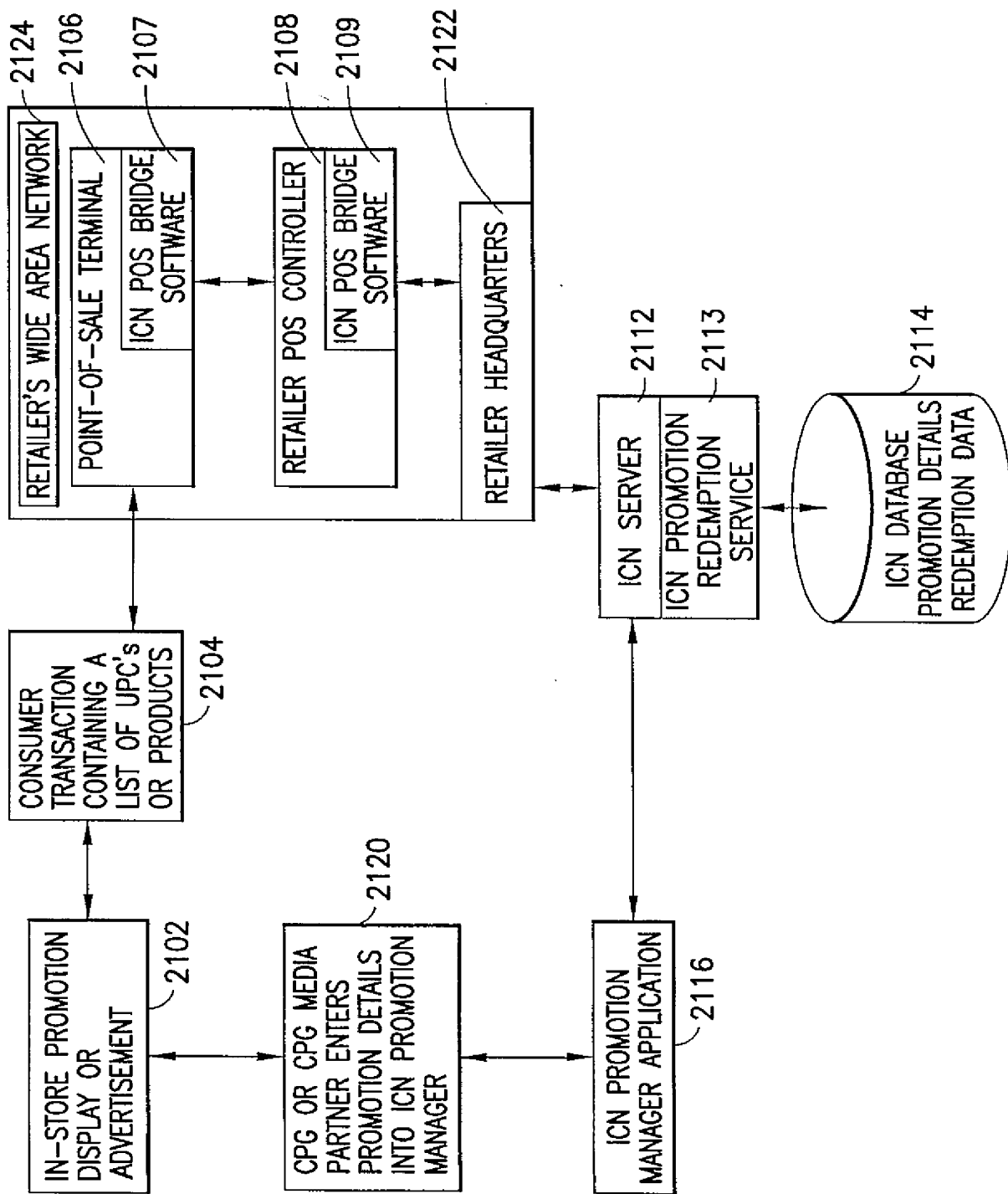


FIG.21

FIG.22A
FIG.22B
FIG.22C

FIG.22

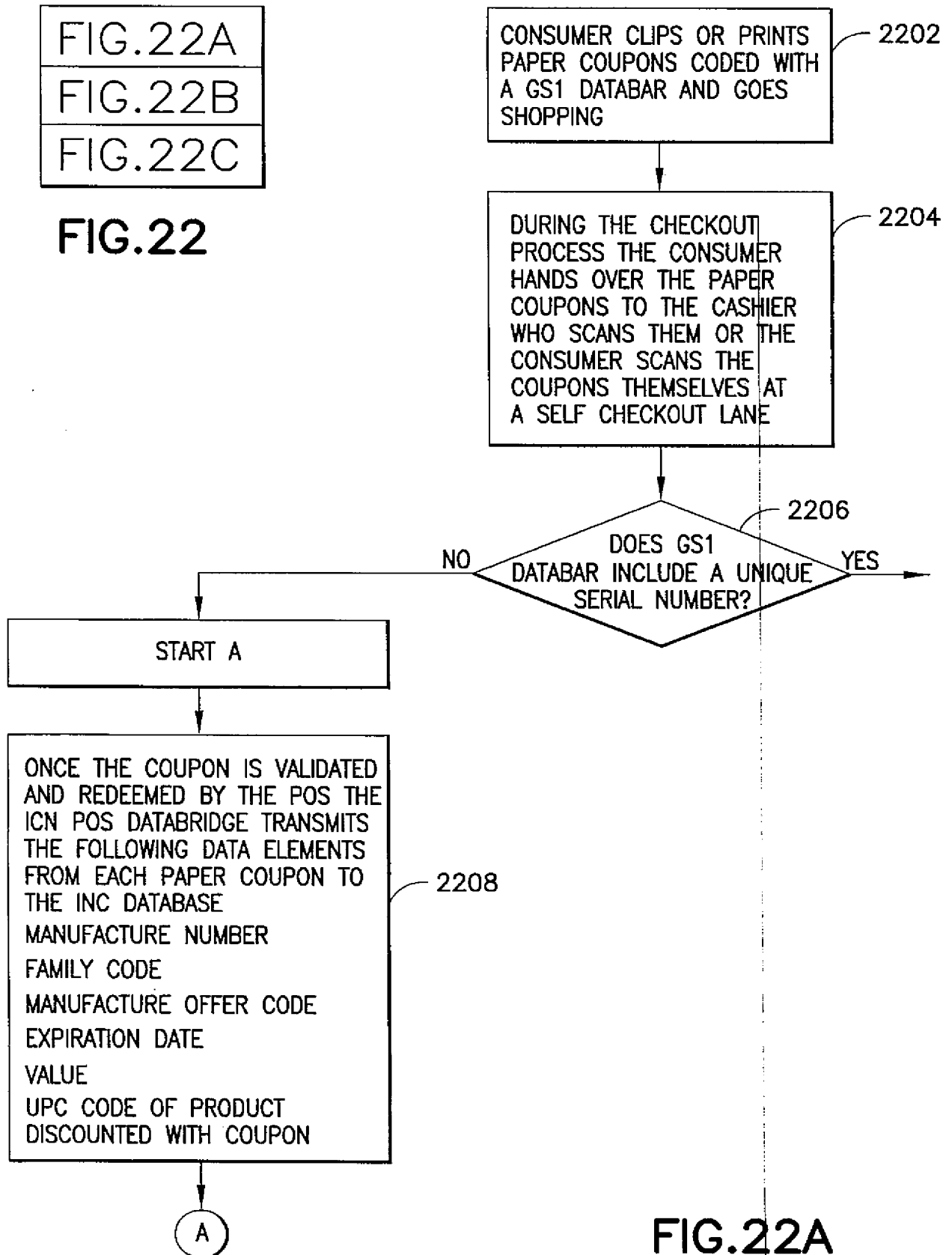


FIG.22A

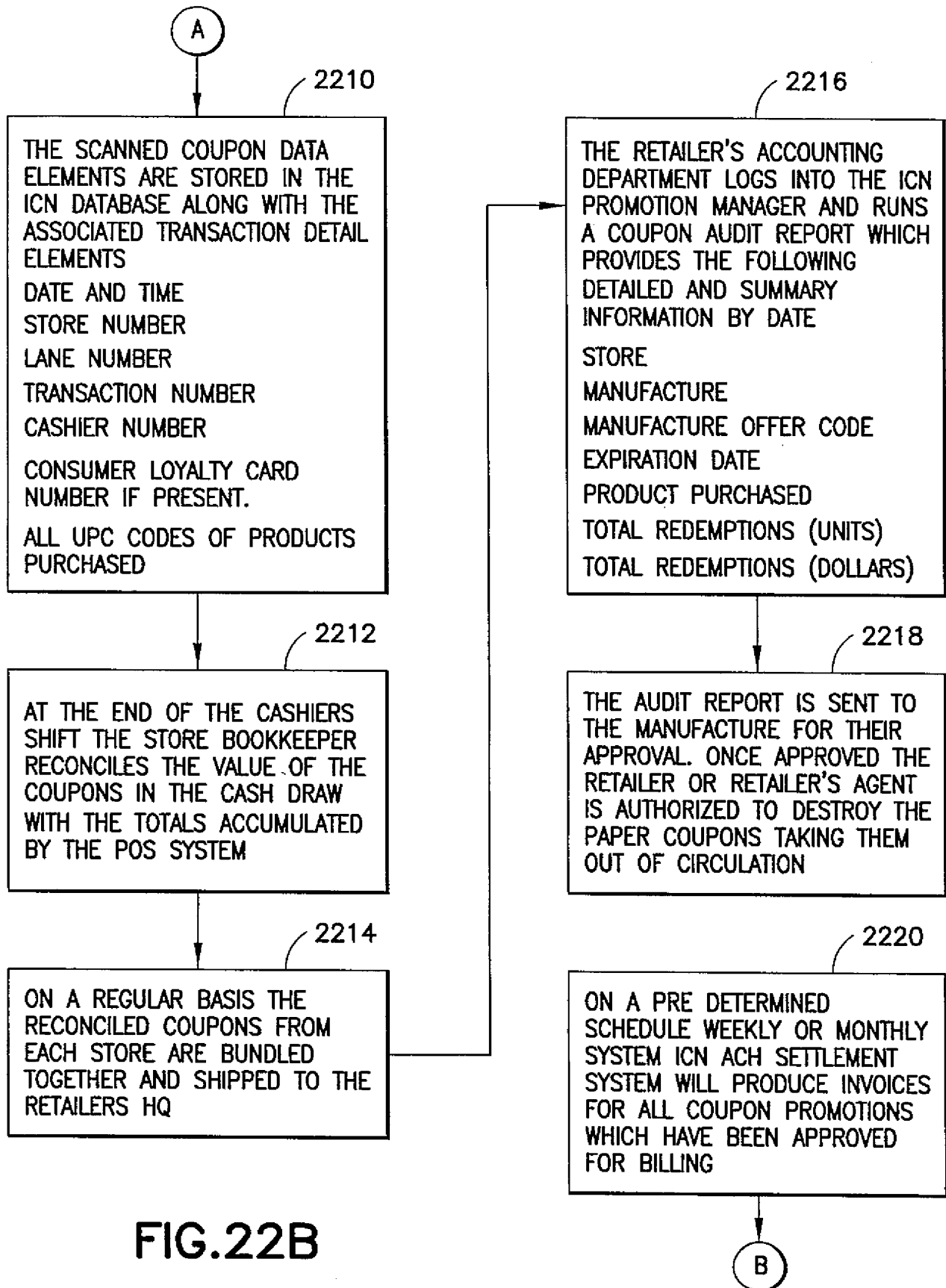


FIG.22B

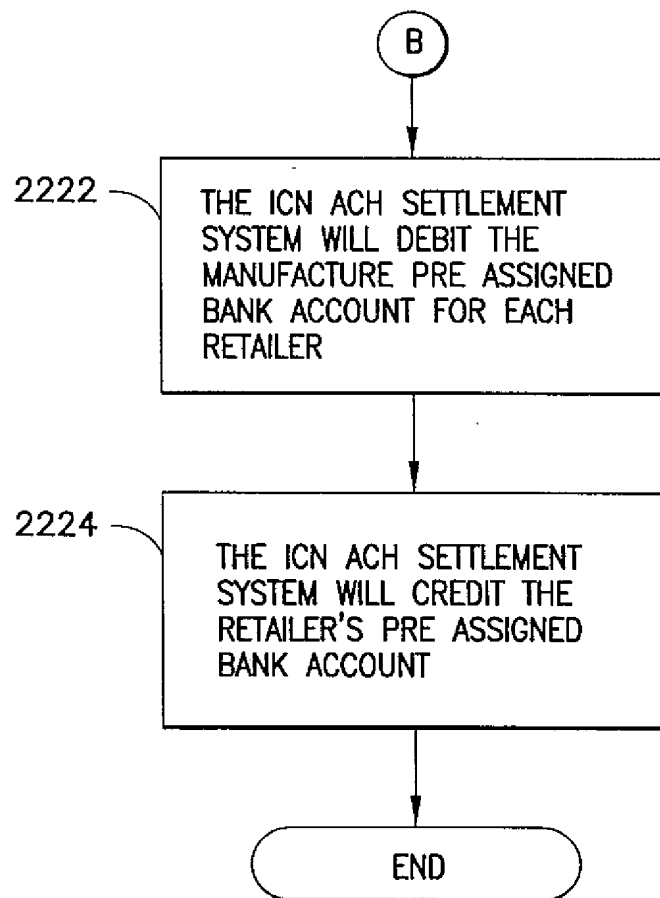


FIG.22C

FIG.23A
FIG.23B
FIG.23C

FIG.23

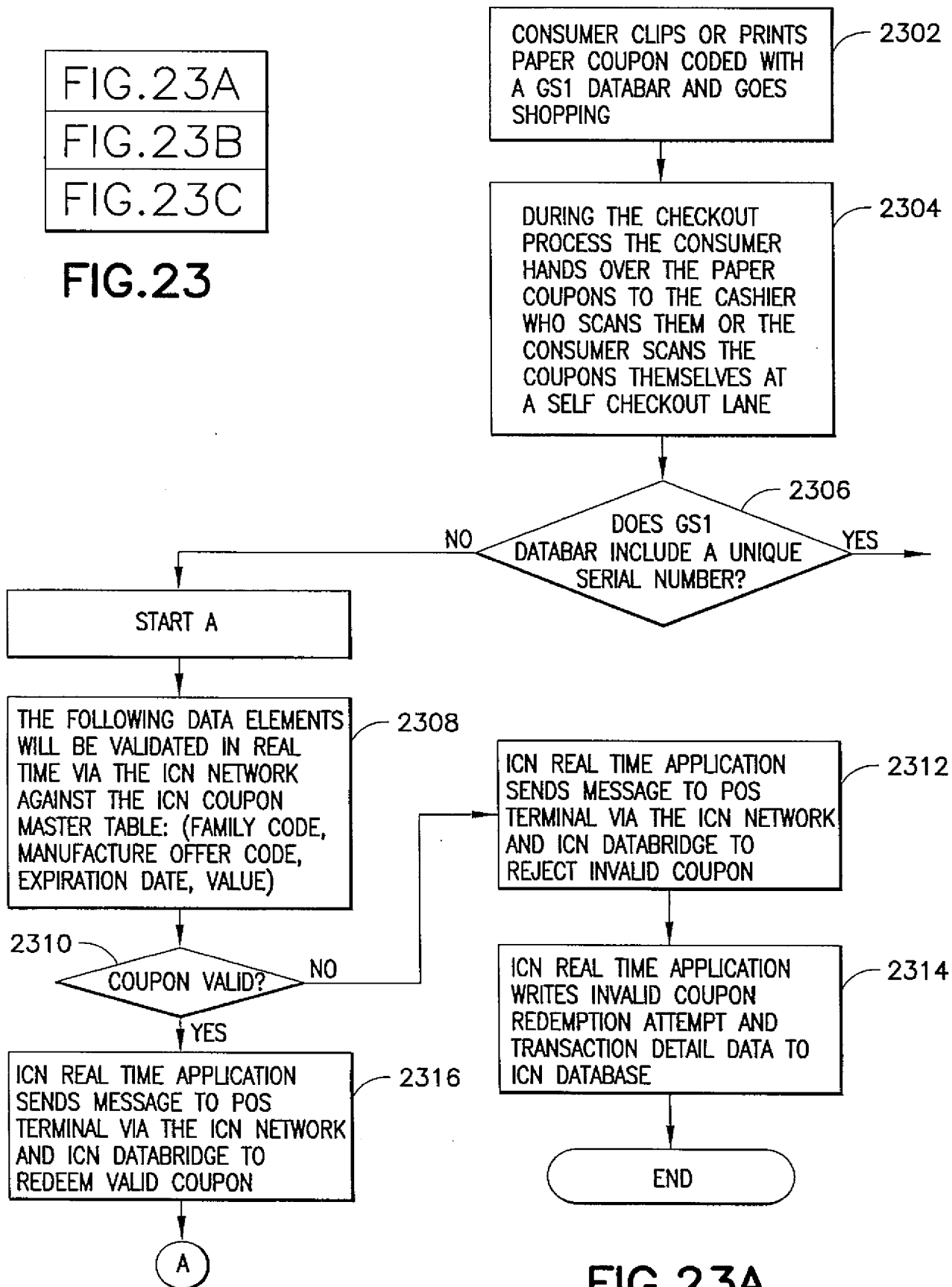
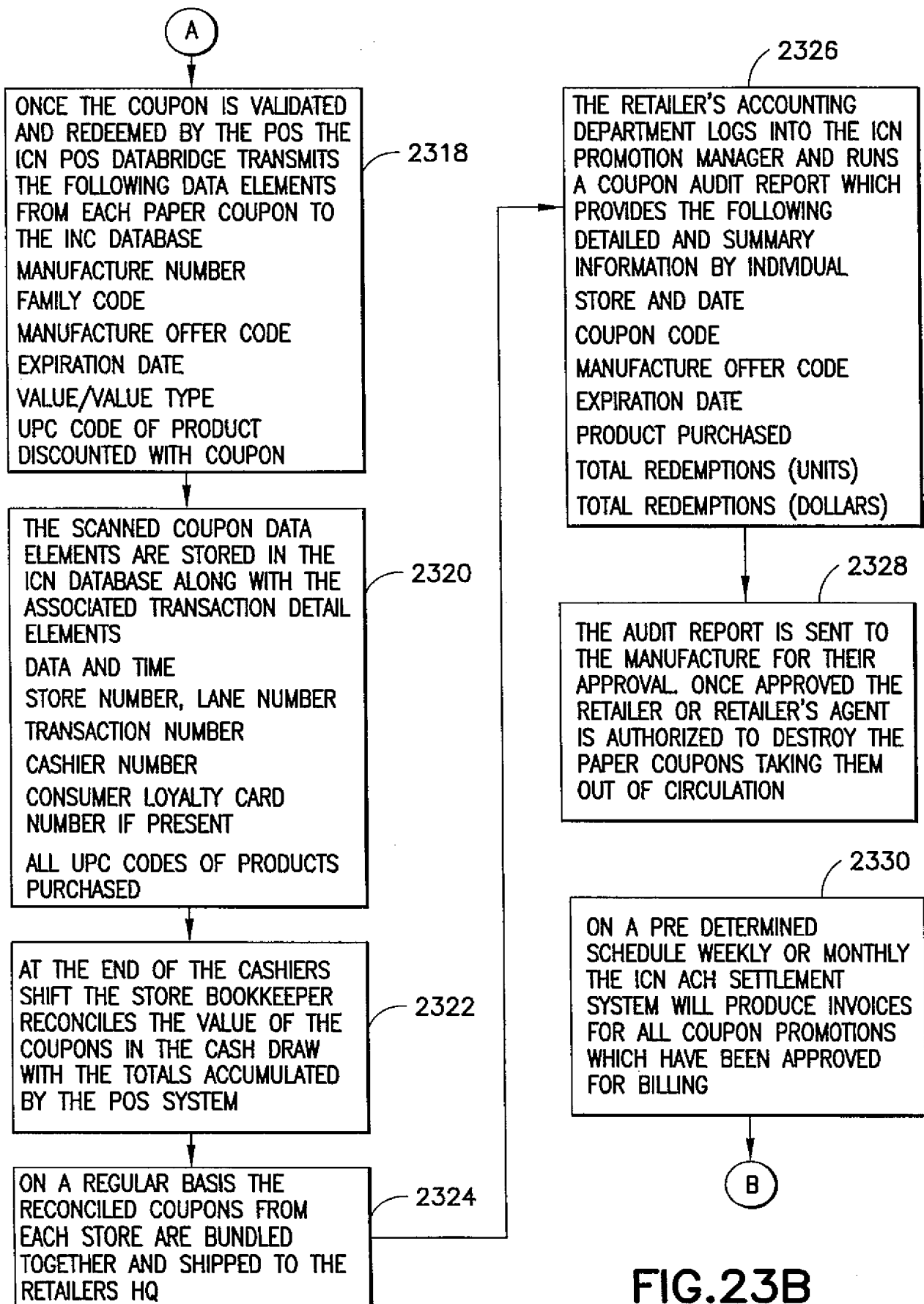


FIG.23A



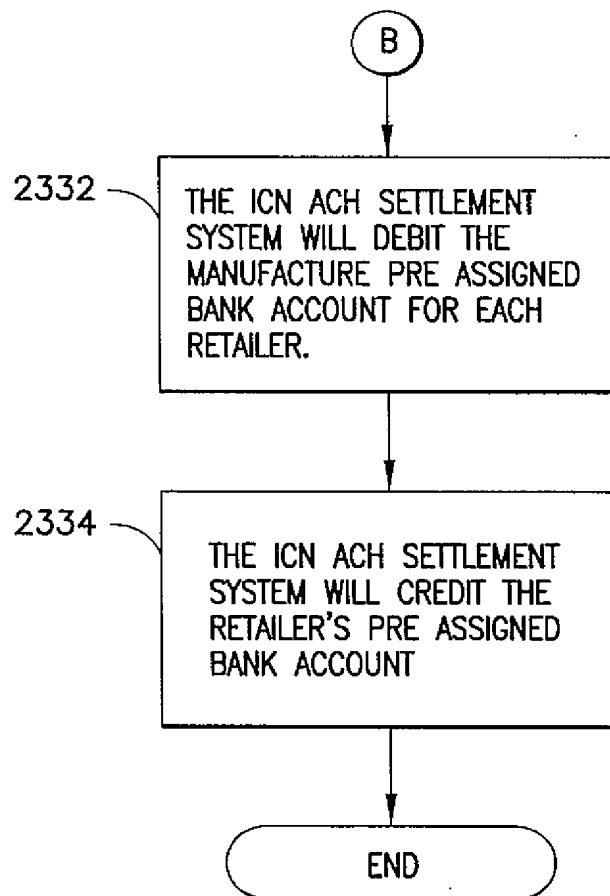


FIG.23C

FIG.24A
FIG.24B
FIG.24C

FIG.24

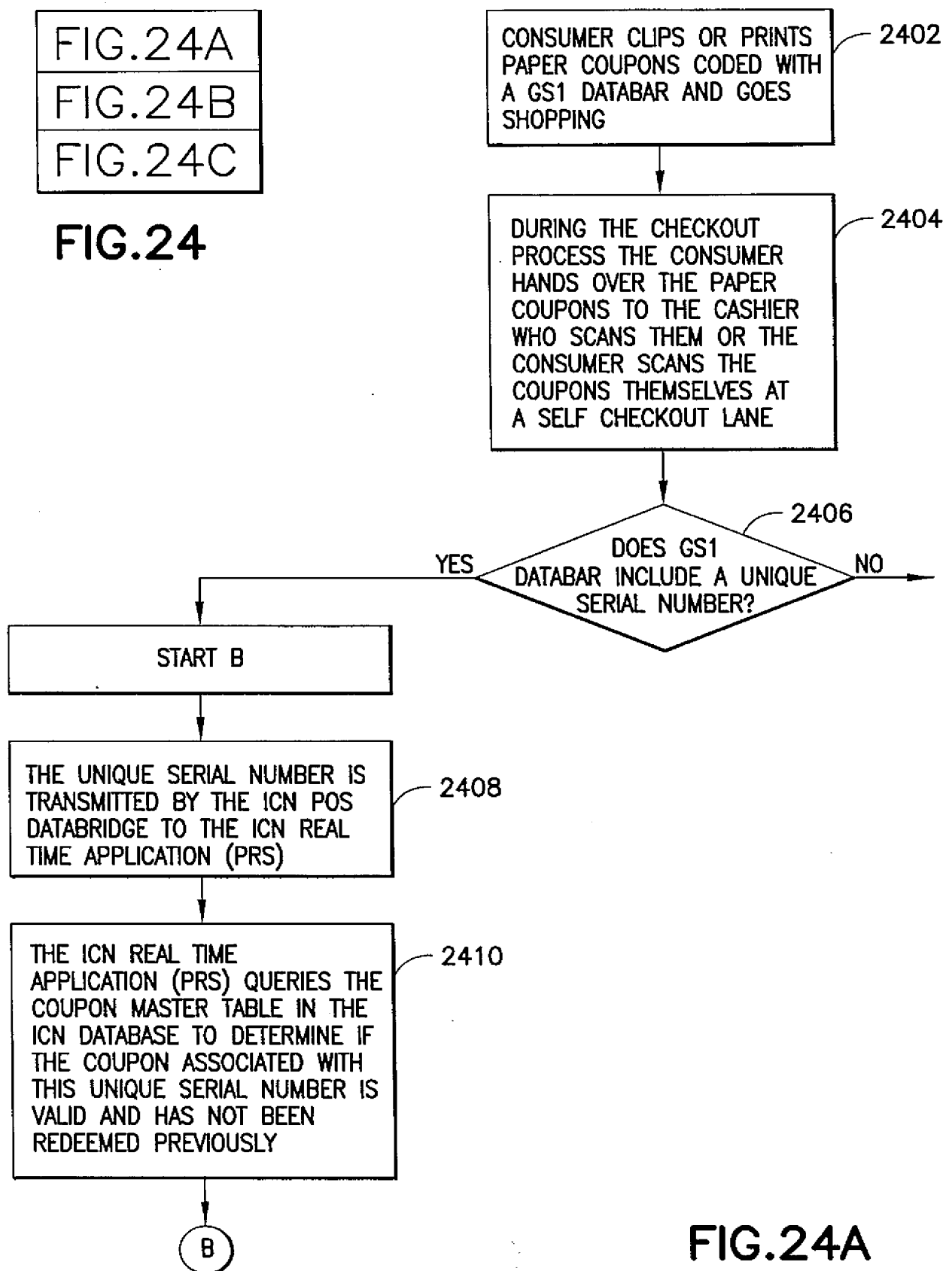


FIG.24A

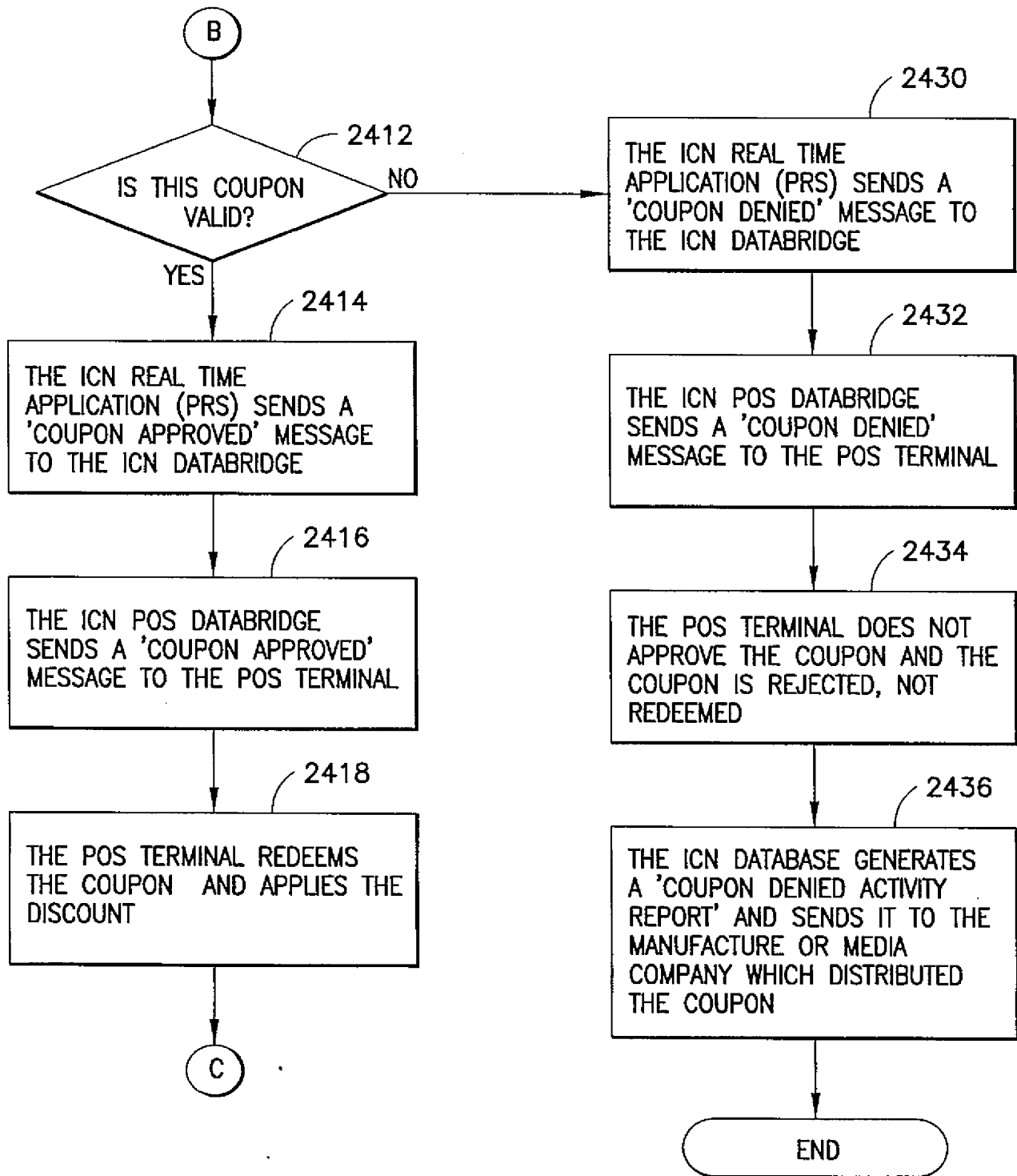


FIG.24B

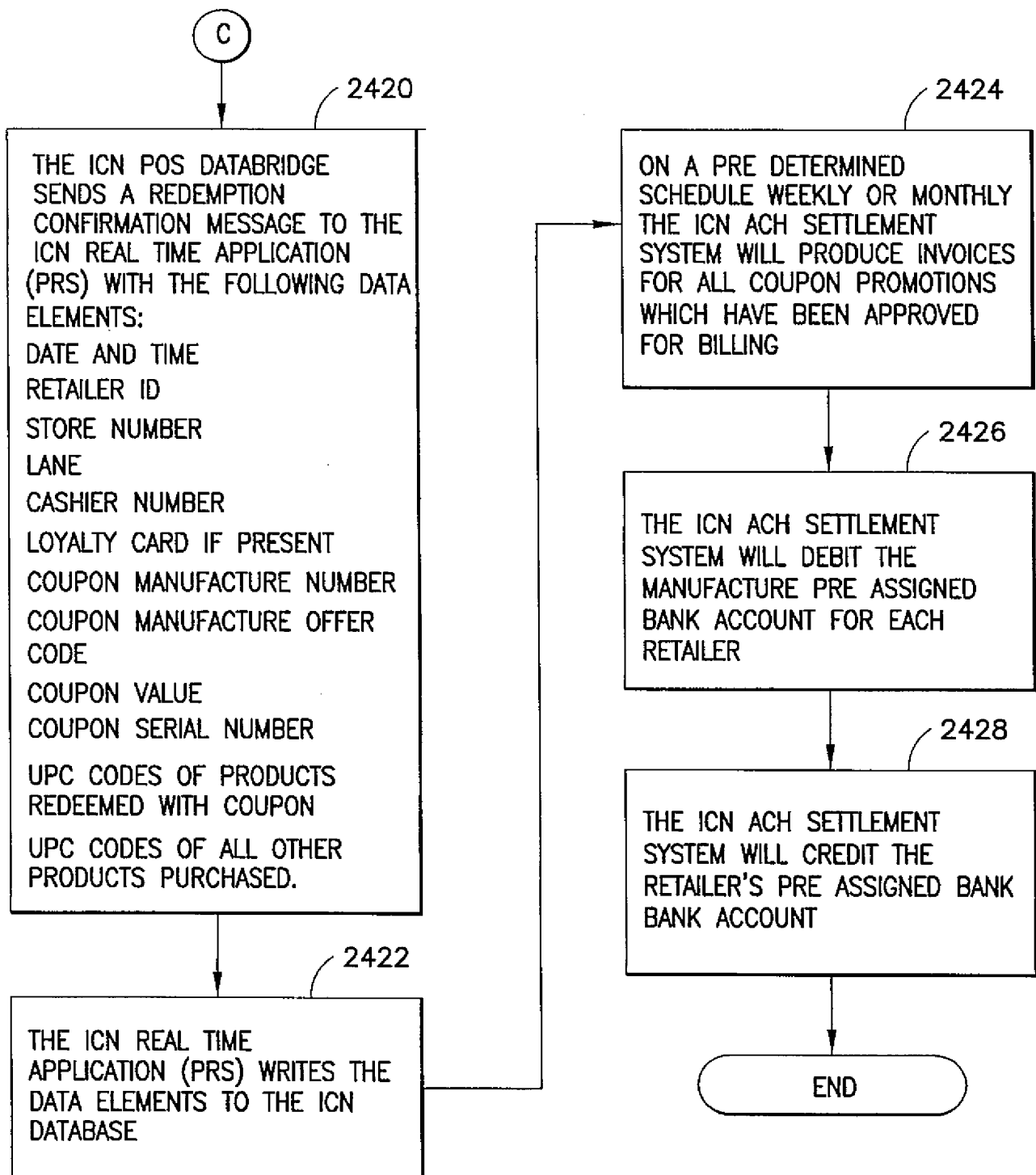


FIG.24C

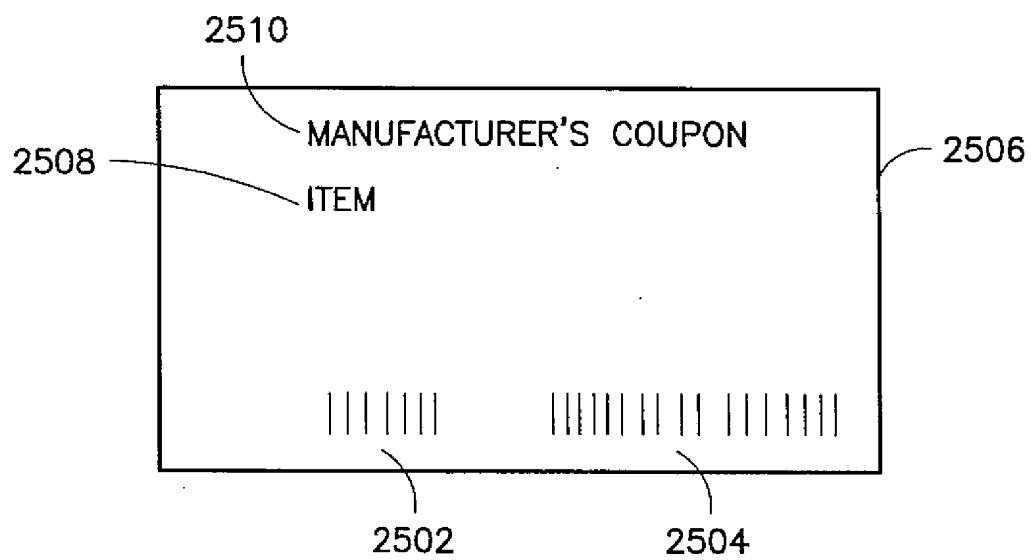


FIG.25

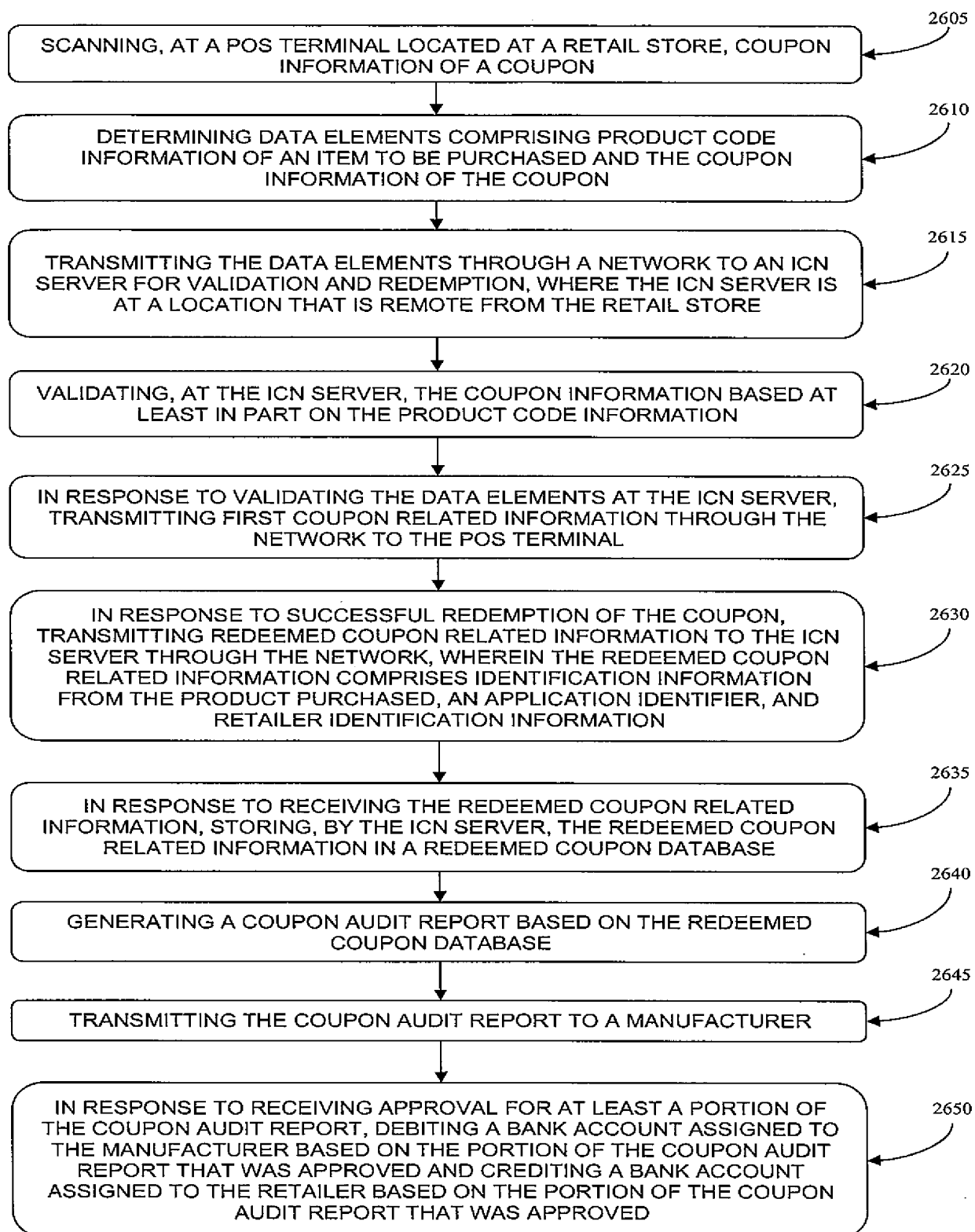


Figure 26

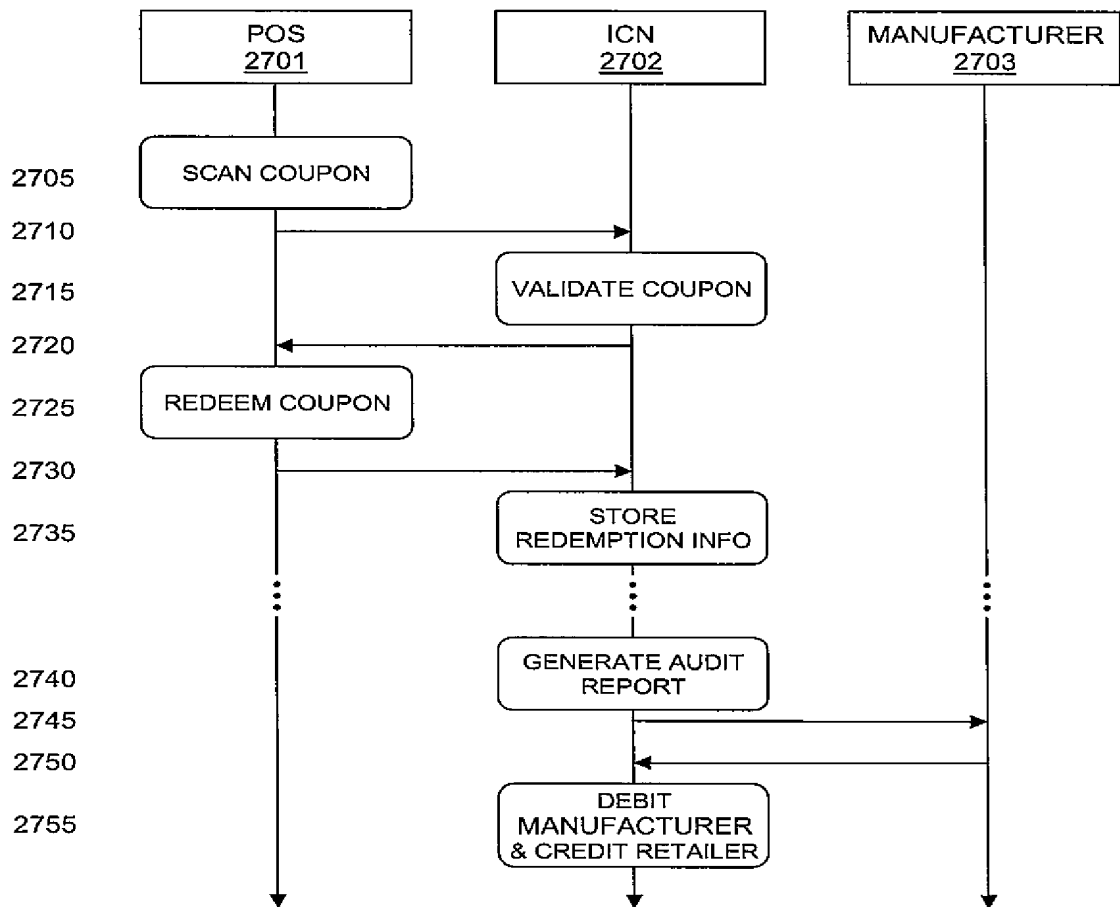


Figure 27

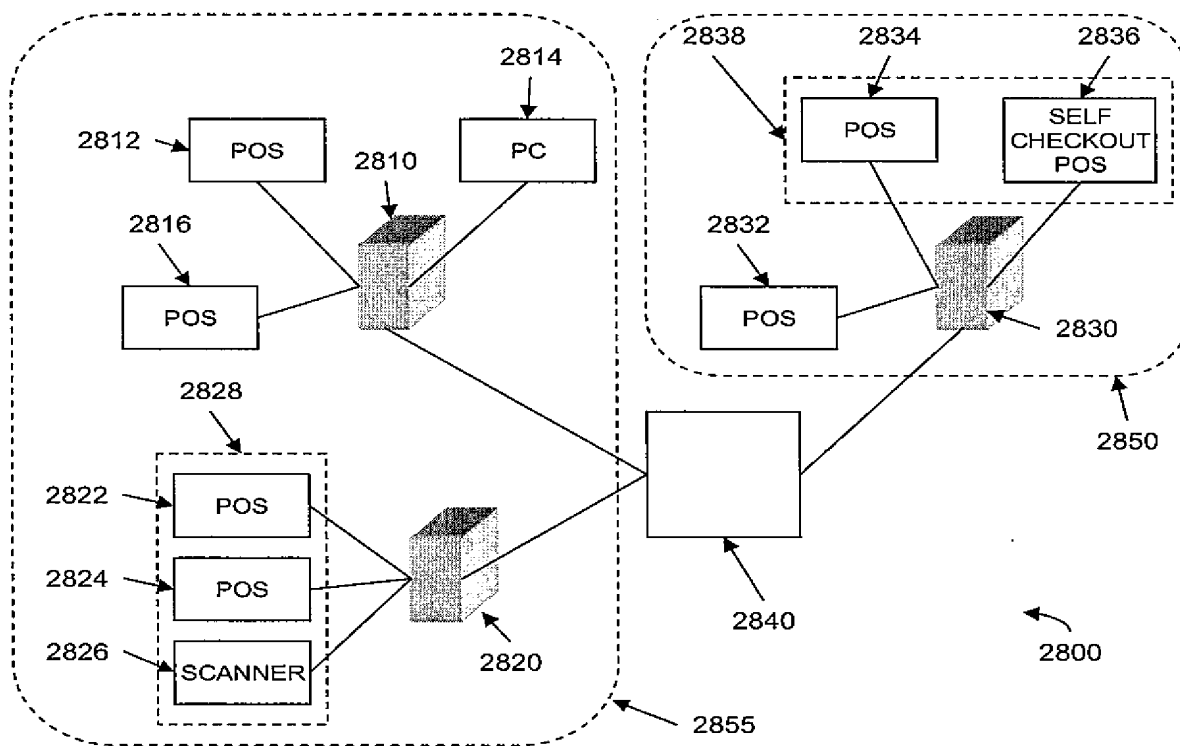


Figure 28

INFORMATION DISCLOSURE CITATION FORM FOR PATENT APPLICATION (FORM PTO-1449) (Substitute)		Docket No.: 068A.0005.U1(US)		Serial No.:	
		Applicant(s): Thibedeau et al.			
		Filing Date: herewith		Group:	
U.S. PATENT DOCUMENTS					
Examiner Initials	Document Number (Number-Kind Code)	Publication Date (MM-DD-YYYY)	Name of Patentee or Applicant	Class	Sub-class
	US-4,601,490	07-22-1986	Brandon	283	56
	US-6,067,526	05-23-2000	Powell	705	14
	US-6,109,526	08-29-2000	Ohanian et al.	235	462.45
	US-6,199,044 B1	03-06-2001	Ackley et al.	704	275
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	US-2002/0161625 A1	10-31-2002	Brito-Valladares et al.	705	10
	US-2004/0054575 A1	03-18-2004	Marshall	705	14
	US-2004/0056101 A1	03-25-2004	Barkan et al.	235	472.03
	US-2005/0192906 A1	09-01-2005	Berstis	705	59
	US-2005/0033643 A1	02-10-2005	Smith et al.	705	14
	US-2006/0247972 A1	11-02-2006	Baron et al.	705	14
	US-				
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FOREIGN PATENT DOCUMENTS					
Examiner Initials	Document Number (Country Code-Number-Kind Code)	Publication Date (MM-DD-YYYY)	Name Of Patentee of Applicant	Translation? Yes/No/n/a	
	JP 2000-020823	01-21-2000	Toshiba Tec Corp.	Abstract only	
	JP 2002-041932	02-08-2002	Nippon Telegr & Teleph Corp.	Abstract only	
	JP 02-308654	12-21-1990	Nitsushiyoo Kiko:KK	Abstract only	
	JP 03-254996	11-13-1991	O P Kaade Syst KK	Abstract only	
	JP 10-287074	10-27-1998	Nippon Signal Co Ltd	Abstract only	
	- -				
	- -				
OTHER DOCUMENTS (Author (Capitalize), Title, Date, Pages, Etc., if known)					
	"Polytronics: Rolling Out the Chips", Fraunhofer Magazine 1.2002, pgs. 8-11				
	Internet article, "UCC/EAN-128 Coupon Extended Codes", March 1, 2006, www.morovia.com , 3 pgs.				
	Internet information, © Copyright 2006, Valassis Communications, Inc., www.valassis.com , 3 pgs.				
Examiner's Signature:			Date Considered:		
Initial if reference was considered, whether or not citation is in conformance with MPEP. Mark through citation if not considered. Include a copy of this citation form with your next correspondence to the Applicant(s).					

INFORMATION DISCLOSURE CITATION FORM FOR PATENT APPLICATION (FORM PTO-1449) (Substitute)		Docket No.: 068A.0005.U1(US)		Serial No.:	
		Applicant(s): Thibedeau et al.			
		Filing Date: herewith		Group:	
U.S. PATENT DOCUMENTS					
Examiner Initials	Document Number (Number-Kind Code)	Publication Date (MM-DD-YYYY)	Name of Patentee or Applicant	Class	Sub-class
	US-5,612,527	03-18-1997	Ovadia	235	383
	US-7,076,444 B1	07-11-2006	Baron et al.	705	14
	US-2005/0171845 A1	08-04-2005	Halfman et al.	705	14
	US-2005/0015300 A1	01-20-2005	Smith et al.	705	14
	US-2004/0107135 A1	06-2004	Deatherage et al.	705	014
	US-2005/0230473 A1	10-2005	Fajkowski, Peter W.	235	383
	US-2006/0038396 A1	02-2006	Thompson et al.	283	067
	US-7,240,843	07-2007	Paul et al.	235	472.01
	US-2005/0182695	08-2005	Lubow et al.	705	028
	US-2004/0019564	01-2004	Goldthwaite et al.	705	44
	US-6,520,542	02-2003	Thompson et al.	283	51
	US-7,578,435	08-2009	Suk	235	379
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FOREIGN PATENT DOCUMENTS					
Examiner Initials	Document Number (Country Code-Number-Kind Code)	Publication Date (MM-DD-YYYY)	Name Of Patentee of Applicant	Translation? Yes/No/n/a	
	- -				
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OTHER DOCUMENTS (Author (Capitalize), Title, Date, Pages, Etc., if known)					
	"Who's Searching For You", http://www.zoominfo.com/people/Gray Gary 758777677.aspx , 3 pgs.				
	"couponchief", http://www.couponchief.com/pages/about , 4 pgs.				
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For: INTELLIGENT CLEARING NETWORK

INTELLIGENT CLEARING NETWORK

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This application is a continuation-in-part patent application of U.S. Patent Application Serial No. 13/773,704, filed February 22, 2013, which is a continuing application of U.S. Application Serial No.: 12/587,193, filed October 02, 2009, which is a continuation-in-part patent application of U.S. Patent Application Serial No. 12/283,206, filed September 9, 2008, which is a continuation-in-part patent application of U.S. Patent Application Serial No. 11/439,725, filed May 23, 2006, which are hereby incorporated by reference in their entireties.

TECHNICAL FIELD

[0002] The invention relates to the electronic clearing, and financial settlement of coupons coded with a barcode application identifier and, in particular, to a real time network based system and method for validating and redeeming paper coupons coded with, for example, a barcode identifier, such as a GSI barcode 8110 application identifier.

BACKGROUND

[0003] Coupons provide benefits to manufacturers and consumers. For example, coupons are a beneficial way for manufacturers to test consumer interest in specific products, determine optimal pricing, and move out older inventory. Mail by the postal system, newspapers, and stores usually serve as outlets for providing coupons to consumers. Consumers benefit because coupons are universally accepted, follow GS1 (including Uniform Commercial Code) guidelines, are easily understood by consumers, and require no prior notification to a retailer. The coupons may be clipped out from the source document.

[0004] However, the process of validating, clearing and financial settlement associated with paper coupons can be a slow, labor intensive process potentially prone to fraud and misuse. An extraordinary number of paper coupons are printed, distributed and redeemed each year. Once a coupon is redeemed by the consumer, the paper coupon is monetized and it must flow through the current manual clearing and settlement process before the retailer is reimbursed for the value of the paper coupon and the cost of handling the paper coupon. This physical paper coupon clearing process can be slow and manual and sometimes requires a

second independent count of each paper coupon before a retailer is reimbursed. Also, within the current paper clearing and settlement process there can be the issue of disputes and charge backs by the manufacture for the value of the redeemed paper coupon to the retailer for paper coupons which the retailer redeemed, but should not have because they were invalid in some way, whether it was because the paper coupon was a copied, or was redeemed after the expiration date on the paper coupon.

[0005] Accordingly, there is need for a real time, convenient way for validating and processing paper coupons quickly, eliminating potential fraud, and providing an auditable and comprehensive financial settlement process, which would eliminate the need for manually counting and validating each paper coupon redeemed.

SUMMARY

[0006] In accordance with a first aspect of the invention, a system comprises an Intelligent Clearing Network (ICN) network; a point-of-sale (POS) terminal; a POS controller; an intelligent clearing network (ICN) server, an ICN database, and an ICN master coupon table. The POS terminal is configured to transmit at least one of 1) first coupon data elements read from a GS1 barcode by the POS terminal, 2) universal product codes of an item purchased, 3) transaction detail information, 4) other related information at the POS terminal to the POS controller, and 5) directly, via the ICN network, to the ICN server for coupon redemption, validation, and financial settlement via the ICN network at the ICN server.

[0007] In accordance with a second aspect of the invention, a master coupon storage medium is configured to store an ICN database. Details defining all coupons printed and distributed with a GS1 barcode are stored centrally in the ICN database on an ICN server configured to be used to validate, redeem, and financially settle all coupons printed with a GS1 barcode. The master coupon storage medium comprises at least one storage device and an interface configured to communicate with the ICN server. The ICN server is configured to communicate over an ICN network with one or more point of sale terminals of a retailer.

[0008] In accordance with a third aspect of the invention, a method for processing coupons comprises reading GS1 data elements from a scanned coupon at a point-of-sale (POS) terminal, the GS1 data elements including universal product code information; transmitting the GS1 data elements through a network to an ICN server for validation and redemption; if the ICN server validates the GS1 data elements, and transmitting first coupon related

information through the network to the POS terminal. The POS terminal is configured to transmit second coupon related information to a POS controller through an ICN POS bridge upon successful redemption of the scanned coupon. Second coupon related information comprises identification information from the product purchased, an application identifier, and retailer identification information.

[0009] In accordance with a fourth aspect of the invention, a method for processing coupons comprises reading first GS1 databar coupon related information from a terminal, the first GS1 databar coupon related information including universal product code information; transmitting the first GS1 databar coupon related information through a network to an ICN server for validation and redemption; if the ICN server validates the first GS1 databar coupon related information, transmitting second coupon related information through the network to the terminal. The ICN server transmits second GS1 databar coupon related information to a POS controller via an ICN network, wherein the POS terminal transmits third GS1 databar coupon related information to the POS controller through an ICN POS bridge upon successful redemption of a coupon. The third GS1 databar coupon related information comprises identification information from the product purchased, GS1 databar coupon code of the second coupon related information, an application identifier, and retailer identification information.

[00010] In accordance with a fifth aspect of the invention, a computer readable medium storing computer code for processing GS1 databar coupons across a network, comprises computer code configured to transfer first GS1 databar coupon related information including universal product code information from a terminal across the network; computer code for receiving, interpreting, and comparing the first GS1 databar coupon related information at an ICN server; if a GS1 databar coupon code is validated, computer code for retrieving GS1 databar coupon codes and any corresponding target universal product codes triggered by the validation of the GS1 databar coupon codes from a centralized database; computer code configured to transmit the retrieved GS1 databar coupon codes to the terminal via the network; and computer code configured to redeem the GS1 databar coupon codes. The ICN server is configured to transmit second GS1 databar coupon related information to the POS controller via the ICN network. The POS terminal is configured to transmit third GS1 databar coupon related information to the POS controller through an ICN POS data bridge upon successful redemption of a GS1 databar coupon. The third GS1 databar coupon related

information comprises identification information from the product purchased, GS1 databar coupon code of the second GS1 databar coupon related information, an application identifier, and retailer identification information.

[00011] In a sixth aspect of the invention, a computer readable storage medium is embodied with computer code for processing coupons across an intelligent clearing network (ICN) network. First computer code may permit a user to download and print out a GS1 databar paper coupon accessed via the world wide web where the coupon having first GS1 databar paper coupon related information. Second computer code may transfer the first GS1 databar paper coupon related information including universal product code information from a terminal across the ICN network. Third computer code is configured to receive, interpret, and compare the first GS1 databar paper coupon related information at an ICN server. If a GS1 databar paper coupon code is validated, fourth computer code may retrieve GS1 databar paper coupon codes and any corresponding target universal product codes triggered by the validation of the GS1 databar paper coupon codes from a centralized database. Fifth computer code is configured to transmit the retrieved GS1 databar paper coupon codes to the terminal via the network. Sixth computer code may redeem the GS1 databar paper coupon codes. The ICN server transmits second GS1 databar paper coupon related information to a point-of-sale (POS) controller via the ICN network. A POS terminal transmits third GS1 databar paper coupon related information to the POS controller through an ICN POS bridge upon successful redemption of a GS1 databar paper coupon. The third GS1 databar paper coupon related information comprises identification information from the product purchased, GS1 databar paper coupon code of the second coupon related information, an application identifier, and retailer identification information. Seventh computer code may be executed to notify the ICN server of successful coupon redemptions.

[00012] In a seventh aspect of the invention, a point of sale (POS) terminal comprises a first interface configured to receive information regarding a transaction to purchase at least one product; a second interface configured to receive information from and transmit information to a retailer server; a processor; and a memory configured to store point of sale bridge computer code for redeeming a manufacturer first GS1 databar paper coupon contained in a promotion request message received through the second interface. The processor is configured to receive information from the first interface and to receive and transmit information through the second interface and configured to execute the point of sale bridge

computer code. The second GS1 databar paper coupon related information is received via the ICN network. The POS terminal transmits third GS1 databar paper coupon related information to the POS controller through ICN POS bridge upon successful redemption of a GS1 databar paper coupon, the third GS1 databar paper coupon related information comprises identification information from the product purchased, GS1 coupon code of the second GS1 databar paper coupon related information, an application identifier, and retailer identification information. The first interface is configured to communicate with a universal product code reading device.

[00013] In a eighth aspect of the invention, a point of sale (POS) retailer server comprises a first interface configured to receive information from and transmitting information to a point of sale terminal; a second interface configured to receive information from and transmit information to an intelligent clearing network server via a network; a processor; and a memory configured to store computer code for a point of sale bridge configured to format a promotion request message and send the promotion request message in real time to an intelligent clearing network server promotion redemption real time service. The processor is configured to receive and transmit first GS1 databar paper coupon related information through the first and second interfaces and configured to execute the point of sale bridge computer code. The POS retailer server is configured to receive second GS1 databar paper coupon related information via the intelligent clearing network (ICN) network. The POS retailer server is configured to transmit third GS1 databar paper coupon related information through ICN POS bridge computer code upon successful redemption of a GS1 databar paper coupon. The first GS1 databar paper coupon related information comprises identification information from the product purchased, an application identifier, and retailer identification information.

[00014] In a ninth aspect of the invention, an Intelligent Clearing Network (ICN) server comprises a processor; an interface configured to permit communications over a network; and an ICN database. The processor of the ICN server is configured to control the execution of an ICN promotion manager application, an ICN database application, and an ICN promotion redemption service and is configured to receive and transmit data and commands through the interface. The ICN server is configured to receive first coupon related information from a point of sale (POS) controller, wherein the ICN server is configured to transmit second coupon related information to the point of sale (POS) controller via an ICN network. The

POS controller is configured to transmit the third coupon related information to the POS controller upon successful redemption of a GS1 databar paper coupon. The third GS1 databar paper coupon related information comprises identification information from the product purchased, an application identifier, and retailer identification information.

BRIEF DESCRIPTION OF THE DRAWINGS

[00015] The foregoing and other aspects of these teachings are made more evident in the following Detailed Description, when read in conjunction with the attached drawings, wherein:

FIG. 1 illustrates an embodiment of a system for redeeming coupons;

FIG. 2A illustrates a block diagram of a first embodiment of information flow;

FIG. 2B illustrates a block diagram of a second embodiment of information flow;

FIG. 3A illustrates an embodiment of the back side of a coupon card;

FIG. 3B illustrates an embodiment of the front side of a coupon card;

FIG. 4 illustrates a first embodiment of an insert with a card attached;

FIG. 5 illustrates a second embodiment of the coupon card utilizing RFID technology;

FIG. 6 illustrates an embodiment of a coupon redemption process between a Point of Sale terminal and an Intelligent Clearing Network server;

FIG. 7 illustrates an embodiment of a coupon code format;

FIG. 8 (FIGs. 8A and 8B) illustrates an embodiment, in detail, of the process of generating and redeeming a coupon card;

FIG. 9 (FIGs. 9A and 9B) illustrates an alternate embodiment, in detail, of the process of generating and redeeming a coupon card;

FIG. 10 shows an embodiment of a system using trigger and target UPCs over a network;

FIG. 11 shows an embodiment of a system permitting a consumer to opt-in to coupons, promotions, or incentives;

FIG. 12 (FIGs. 12A and 12B) shows an example of a process for assigning and display promotions and purchasing products advertised through the promotions;

FIG. 13 shows an embodiment of ICN data flow;

FIG. 14 shows an embodiment of ICN incentive management;

FIG. 15 shows an embodiment of a retail environment that uses ICN;

FIG. 16 shows an embodiment of a method for entering trigger and target UPCs through a browser;

FIG. 17 shows an embodiment of an ICN;

FIG. 18 shows an embodiment of the automated clearing house processing incorporated in a financial settlement system;

FIG. 19 shows an embodiment of a debiting and crediting process;

FIG. 20 shows an ICN system integrated with an ACH processing system;

FIG. 21 shows an embodiment of a system that may operate as the system illustrated by FIGs. 10 or 11;

FIG. 22 (22A, 22B, and 22C) shows an embodiment of a system for processing a paper coupon;

FIG. 23 (23A, 23B, and 23C) shows another embodiment of a system for processing a paper coupon;

FIG. 24 (24A, 24B, and 24C) shows yet another embodiment of a system for processing a paper coupon;

FIG. 25 shows an embodiment of a paper coupon in accordance with this invention;

FIG. 26 is a logic flow diagram that illustrates the operation of an exemplary method, and a result of execution of computer program instructions embodied on a computer readable memory, in accordance with various exemplary embodiments;

FIG. 27 illustrates a simplified signaling diagram in accordance with an embodiment; and

FIG. 28 shows a further embodiment of a system for processing a coupon.

DETAILED DESCRIPTION

[00016] Non-limiting embodiments of the invention are further described below. However, it should be appreciated that some of the features of the embodiments of the invention may be used to advantage without the corresponding use of other features. As such, the foregoing

description should be considered as merely illustrative of the principles of the invention, and not in limitation thereof. Further, one skilled in the art may appreciate that the invention can be practiced by other than the described embodiments; that these described embodiments are presented for the purposes of illustration and not of limitation.

[00017] Embodiments of the invention relate to a coupon processing system and method that allows for automatic processing of coupons and provides linkage between a coupon card and coupon information stored in a centralized database. The coupon processing may entail validation (and invalidation) and, when validated, redemption of the appropriate coupon(s) or other appropriate action. The embodiments present novel ways of bundling technologies, including existing technologies such as real time communications and large volume data processing facilities, into a functioning operational platform and also present novel ways for doing business. Consumers may use the coupon card for a variety of products offered by a manufacturer and/or retailer.

[00018] Thus, according to some embodiments, a real time system is connected to the point-of-sale (POS) terminal and or POS controller wherein the real time system delivers manufacture paper coupon codes or GS1 paper coupon codes directly into a live transaction bypassing the POS scanner and the need for a paper coupon to be presented and subsequently cleared and settled manually. In another aspect of the invention, a real time system is connected to the POS terminal and or POS controller wherein the real time system can execute a coupon discount at the POS without any prior coupon definition or coupon data elements of the coupon related information being loaded onto the POS system. In yet another aspect of the invention, a real time system is connected to the POS terminal or POS controller wherein the real time system can determine in real time the association between the manufacture paper coupon code or the GS1 paper coupon code delivered by the real time system electronically bypassing the scanner and the product or products the coupon discount was applied to by the POS system.

[00019] FIG. 1 shows an embodiment of a system for redeeming coupons associated with a coupon card via a centralized database. The system may be an Intelligent Clearing Network (ICN) having an ICN server 114. The ICN may be an Intelligent Coupon Network, an Intelligent Incentive Network, an Intelligent Coupon and Incentive Network, or the like.

[00020] An ICN is a system that can provide for the electronic validation and redemption of coupons and/or incentives through real time communications and a centralized database, such as ICN database 116, which is coupled to the ICN server 114. The ICN server 114 executes software applications that process coupons for one or more manufacturers who have transacted with the owner of the ICN server 114 to provide such processing. The ICN server is accessible via a retailer's wide area or other network (WAN or other network) and has an ICN promotion redemption service (PRS) installed and running in real time to accept connections over a configured listening transfer control protocol port. In embodiments, a plurality of manufacturer servers 110 may be configured to communicate with the ICN server 114. The ICN server 114 may tabulate the raw data of the coupon processing transactions for a specific manufacturer and provide the tabulated data to the specific manufacturer in the form of reports.

[00021] Coupon and/or incentive processing typically include validation and redemption and the supplying of the raw data to the appropriate manufacturer. In the embodiment shown in Figure 1, a coupon card may be read by a card reader 102 at a retail store or other establishment. The coupon information from the coupon card may then be sent to the Point-of-Sale (POS) terminal which then may transmit the information to the retail store server 106. The central component of a POS terminal is the processor that executes software application(s). The POS terminal may include a processor, memory, input/output interface circuitry, and the software application(s) to reformat coupon information in an appropriate digital form. The retail store server may record the coupon information and may transmit it to server 114, such as an ICN server, via a network 120. The retail store server, which may be a retail POS controller, includes a processor and input/output interfaces, as needed, and may be implemented as a microprocessor based device, a main frame, a standalone computer, or a network of computing devices. An ICN server may be a server dedicated solely to the processing of manufacturers' coupons and includes a processor. Associated with the server may be a centralized database 116 that is incorporated within the server or may be a standalone device or storage system, such as a Redundant Array of Independent Disks (RAID). The network 120 may be an internet, such as the World Wide Web, an intranet, an extranet, a virtual private network (VPN), a high speed dedicated communication line, or another network, and may use wired or wireless technology or a mixture of wired and wireless technology. The ICN server 114 then may notify the manufacturer of a completed

transaction or completed set of transactions by sending status information to the manufacturer's server 110. As in the case of the ICN server 114, the manufacturer's server 110 may also include a processor, input/output interfaces, and memory to perform the function of processing coupons. The manufacturer's database 112 may be stored within a memory of the manufacturer's server 110 or as a standalone device or system. Instead of transmitting coupon information from the retail server 106 to the ICN server 114, the coupon information may be transmitted from the retail server 106 to the appropriate manufacturer's server 110 for redemption. In this alternative embodiment, the manufacturer's server 110 notifies the ICN server 114 of the coupon redemption, as shown in FIG. 2B.

[00022] The coupon and/or incentive processing system (e.g., ICN system) distributes coupon codes, such as standard Uniform Code Council System 5 coupon codes or GS1 coupon codes, associated with a coupon card. In an embodiment, the coupon card may be a one-use card. In another embodiment, the coupon card may be useable as long as at least one coupon offer has not expired for a product that has yet to be purchased or a product limit that has not been attained. In yet another embodiment, the coupon card may be updated so as to provide additional coupon offers to a consumer. In still a further embodiment, the coupon card may be a permanent coupon card in which coupon information is updateable via a manufacturer's server or a coupon processing server.

[00023] Embodiments of the invention relate to information associated with a coupon card. A unique account number may be assigned to the consumer coupon card on a magnetic ink character recognition strip (i.e., magstripe) on the back of the consumer coupon card. A magstripe card has a strip of binding material containing ferromagnetic particles which is capable of storing data and is read by a reader head such as may be found in magnetic card readers. The system may include a centralized database containing the unique account numbers assigned to each card and a list of available manufacturer coupon codes assigned to the account numbers on each coupon card. The coupon card may link the consumer at the Point of Sale (POS) to a centralized database where the coupons, promotions, or incentives reside. The linkage of one or more coupons, promotions, or incentives to a coupon card may be set at the time the coupon card is provided with a unique account number or shortly thereafter. In embodiments, where the coupons, promotions, or incentives may be updated, the coupon card account number may be linked to various coupons, promotions, or incentives at various times. In distribution methods contemplated by the invention, the consumer may

receive a coupon card through a variety of ways, including, but not limited to, on a product's package, newspapers, magazines, postal system mail, or in-store promotions. In one embodiment, during checkout, the cashier presses a coupon card function key on the POS terminal and the consumer may slide his or her coupon card through the card reader, whereupon the POS terminal software may establish a communications link with a server, such as the retailer's server 106 or other computing device, and transmit the account number on the coupon card over the store's real time communication line to the centralized database of a coupon processing computer, such as an Intelligent Clearing Network server 114. The centralized database application may validate the account number, query the centralized database for any active coupon codes found, and transmit the first set of digits/ alphanumeric characters consisting of information, such as the NSC (Number System Code), Manufacturer Number, Family Code, and Value Code of each active coupon code back to the POS terminal. Then, the POS terminal may begin a validation process to validate each coupon code against products purchased by the consumer for any coupon code redeemed, and the POS application, upon validation of a coupon code, may transmit back to the centralized database the second set of digits/ alphanumeric characters, corresponding to the redeemed coupon code, such as the NSC (Number System Code), Manufacturer Number, Family Code, and Value Code. In an example of an implementation, the first set and second set of digits are eleven digits each in the case of a system 5 coupon and or twelve digits each in the case of a system 99 coupon. The first and second set of digits may have an equal number of digits/ alphanumeric characters or a different number of digits or alphanumeric characters. For example, the first set of digits may include 13 alphanumeric characters and the second set 11 alphanumeric characters.

[00024] The coupon card 302 may be formed on a substrate, such as plastic or paper or other medium that is typically flexible, sufficiently durable, and cost effective to produce. For example, a 10 mil thick plastic sheet may be sized to the length and width of a credit card or key ring card. Thus, the coupon card may advantageously be of various sizes including the form of a credit card, grocery store shopper's card or key ring for ease of carrying in a wallet or purse or on a key ring.

[00025] As shown in FIG. 3B, the front of the coupon card 302 may display an image 308 of one or more products for which the coupon card offers a discount, including an image 310 of the amount and conditions of the savings. The displayed image may be formed through

printing directly on the substrate or through application of a preprinted label. Other image forming techniques may be used including polytronic labeling. To better protect the information on a coupon card, non-optically readable technology may be used. The non-optically readable technology may include electromagnetics, magnetics, or smart card technology. As shown in FIG. 3A, in an embodiment, the back of the coupon card 302 has a swipe strip 304, preferably a Magnetic Ink Character Recognition (MICR) strip. Alternatively, Radio Frequency Identification (RFID) technology or other electromagnetics technology, such as Radio Frequency Data Communication (RFDC), may be employed. Where an RFID coupon card is implemented, the corresponding electronic circuitry on the coupon card may be formed on or adhered to the substrate of the coupon card. Yet, alternatively, optically readable technology, such as optically scannable bar codes, may be used. In an optically readable embodiment, coupon identification information 306 may be provided in a user viewable form on the back of the coupon card 302. In certain embodiments, biometric identification techniques may be employed. For example, in a biometric identification embodiment, a fingerprint scanning pad may be attached or placed proximate to the card reader in which a communications link is established between the fingerprint scanning pad and the POS terminal.

[00026] FIG. 5 illustrates an embodiment of a coupon card using RFID technology. An antenna 502 on the coupon card 508 may transmit and receive information from an RFID reader. The received information may be filtered, amplified, and digitized by processing signal circuitry 510 which may then be further processed for information content by processor 504. Coupled to the processor may be a memory 506. The coupon card memory 506 may be of one or more types of memory, including volatile memory, such as random access memory, and/or non-volatile memory, such as battery backed random access memory and/or read only memory.

[00027] Embodiments of the invention offer a way for Consumer Package Good's (CPG) manufacturers (i.e., manufacturers of consumables such as cleaning products, food, beverages, clothing, and the like) to distribute GS1, Uniform Code Council guideline or other coupons without the need of an optically readable barcode. Through a Direct Mail promotion, In-Store promotion, or a Free-Standing Insert (FSI) in the Sunday newspaper, the consumer may receive an insert, sheet, or flyer with a coupon card having a Magnetic Ink Character Recognition strip on its back. To aid a consumer, a shopping list 318, as shown in FIG. 4,

may be provided along with a removable coupon card 302 detachable or removable from the insert, sheet, or flyer 312. To further aid a consumer, coupon information 316 may be printed or labeled on the insert, sheet, or flyer 312. The coupon information, in an embodiment, may provide a list of one or more brands with the amount of savings on a purchase; for example, Brand A's coupon may be a 50 cent off coupon, Brand B may require a purchase of two Brand B products for a savings of \$ 2, Brand C may offer a 60 cent savings when purchased with Brand D, etc. Additionally, a space 314 may be dedicated to advertising, such as by displaying an image of one or more of the products, and another space 320 dedicated to miscellaneous information, such as a recipe. The revenue source for the coupons may be the manufacturer of Consumer Package Goods (CPG). The CPG manufacturer may pay for printing and distributing coupons on the coupon processing network, including FSI pages, Direct Mail, and In-Store, on package printing or labeling, coupon clearing fees, and real time data feeds for up to date promotion analysis and accounting.

[00028] FIG. 6 illustrates an embodiment of a method for processing one or more coupons from a coupon card. In an embodiment, contained in the MICR strip of a coupon card is a unique number assigned to the coupon card. At the POS 602, the consumer may swipe his/her coupon card through a card reader as would be done in a debit or credit card transaction. Using the real time communication network in the store, a network message may be sent 604 to the centralized database containing the unique coupon card account number along with the retailer's identification and location. The coupon processing server coupled to the centralized database may validate the unique ID number 606 and search for available coupons assigned to the card in the coupon processing server centralized database. Any coupon codes which have not expired or were not previously redeemed may be transmitted back to the POS terminal for normal validation 608 as part of a message that includes the retailer's identification and location and the identification of the POS terminal. For any coupon which is redeemed, the POS terminal may send back a network message to the coupon processing server centralized database indicating which coupons were successfully redeemed. The coupon processing server centralized database may update the customer record, accordingly. As shown in FIG. 6, the coupon processing server may send the first several (e.g., eleven) digits/ alphanumeric characters of the available coupon codes to the POS terminal via the retail server and network 610. The POS terminal may validate the coupons 612 and send the redeemed coupon code to the coupon processing server 614 as a second several digits/

alphanumeric characters and also, as additional digits and alphanumeric characters, other GS1 coupon code information (e.g., by triggering the Uniform Product Code (UPC) of the barcode information from a scanned product corresponding to the coupon being redeemed), to the coupon processing server via the network 616. The coupon processing server may then deactivate the redeemed coupons 618. The coupon processing server may also retrieve the remainder of the GS1 code corresponding to each of the redeemed coupons and send this information and information regarding the unique coupon card number and retailer information (e.g., location, POS terminal identification, time of purchase) to the corresponding CPG manufacturer.

[00029] The method of distributing, redeeming, and clearing Manufacturer Coupons may benefit all three groups involved in the transaction – consumers, retailers, and manufacturers. The benefit to consumers is the ease of use because clipping and/or organizing coupons is no longer needed. The benefits to the retailer are reducing the labor associated with processing paper coupons and substantially reducing the time it takes to receive reimbursement for the promotions from the manufacturer. The benefits to the manufacturer potentially include a better product for the consumer resulting in increase response rates, real time promotion tracking, faster and more reliable accounting, and a reduction in fraud associated with paper coupons.

[00030] Thus, embodiments disclosed provide a system and method that may be used for electronically distributing and clearing a variety of coupons. Each coupon may have a code. Each coupon code may include a base portion and an extended portion. For example, the embodiments may be used with GS1 coupons, such as the formerly designated Uniform Code Council (UCC) system five and system ninety nine manufacturer coupons. GS1 format standards are maintained by the GS1 standards organization, formerly known as the Uniform Code Council. In an embodiment, similar to debit, credit and Electronic Benefit Transactions (EBT), the POS terminal reads a unique code from a coupon code and transmits this unique code to a centralized database, such as the centralized database of a coupon processing server via a network.

[00031] An example of an implementation of the coupon processing method of the invention is provided. A coupon card with unique coupon card account number 12345678 may have a coupon for .50 off a 2 liter beverage drink assigned to it; for example, 54900011050x, where x is the check digit. The check digit may be useful for paper coupons with barcodes being

scanned by a scanner. On the ICN centralized database, the full coupon code assigned to card 12345678 may include a string of digits or alphanumeric characters such as 54900011050 x 8101 0 88062 0306. The consumer may purchase a 2 liter beverage drink with, for example, UPC code 0:49000:06390 and may swipe his or her coupon card. The POS terminal may transmit the coupon card account number, 12345678, to the ICN server. The ICN server may then send back a corresponding coupon code, e.g. 54900011050, to the POS terminal. The POS terminal then may determine if the coupon code is valid through a validation process, such as standard coupon validation routines. The POS terminal may send back to ICN a redeemed coupon code, e.g., 54900011050, and a triggering UPC product code, e.g., 04900006390. The ICN server may also provide in real time to the beverage drink manufacturer the fully redeemed coupon code, the location of the redemption transaction, and the product that triggered the redemption.

[00032] FIG. 7 shows an example of coupon format as the GS1 US format (formerly known as the Uniform Code Council System 5 coupon). A first portion of the coupon code may be GS1 US code, formerly known as the Universal Product Code (UPC), shown, in FIG. 7, to include a Number System Code, a manufacturer number, a family code, a value code, and a check digit. A second portion of the coupon code may be the 'Extended Portion,' which includes information such as Manufacturer Offer Code (MOC), Expiration Dates, Household Identifier, and associated application codes, and may correspond to the GS1, or European Article Numbering (EAN-128), format. The Extended Portion, as shown in FIG. 7, may include an application identifier, a product number system code (NSC), a manufacturer offer code (MOC), an expiration date, another application identifier, and a household identifier. While this information may be necessary to the manufacturer, it is not currently captured and the extended portion of the code may not even be read when scanned by the POS terminal in which case the manufacturer may have to wait weeks until the redeemed coupon has completed the long journey through the manual coupon clearing process. In contrast, with a coupon redeemed through a coupon card of the invention, this information is available immediately upon receiving the network message that a particular coupon has been redeemed. Other coupon code formats are contemplated by the invention.

[00033] The method for processing coupons may include reading first coupon related information from a coupon card at a Point-of-Sale (POS) terminal. The first coupon related information may be householder identifier information, account identification, or the like.

The first coupon related information may be transmitted through a network to coupon processing server. If the coupon processing server validates the first coupon related information, second coupon related information may be transmitted from the coupon processing server through the network to the POS terminal. The second coupon related information may be one or more system 5 or system 99 coupon codes available to the identified consumer and may include the NSC (Number System Code), Manufacturer Number, Family Code, and Value Code.

[00034] FIG. 8 shows a flowchart of an embodiment of a method of the invention. A unique card account number, such as a unique coupon card account number, may be assigned to a coupon card 802. The unique card account number may be a randomly generated number, a household number, the first portion of the coupon code of Figure 7, or the like. Coupon codes may be then assigned to the coupon card 804. For example, GS1 system codes may be assigned to the coupon card. The unique card account number and coupon codes may be loaded into the coupon processing server database 806. The unique card account number may be loaded onto the MICR strip of the coupon card 808 through a magstripe writer. The coupon card and promotion may be sent to the consumer 810. The consumer may present the coupon card during checkout 812 to purchase a product that corresponds to a coupon associated with the coupon card. The cashier may select the coupon card function key on the POS terminal keyboard 814. Alternatively, the coupon card redemption process may be initiated automatically through the reading of the coupon information on the card. The consumer thereupon may slide the coupon card through the card reader for a magnetic swipe card or wave the card in proximity to a RFID reader 816 which reads the unique coupon card account number. A software application of the POS terminal may transmit the unique coupon card account number (as first coupon related information) to the coupon processing server database application 818 as part of a message package that includes identification of the retailer and identification of the POS terminal, either directly or via a retailer server. The coupon processing server database application may validate the unique coupon card account number 820 or send back an error message to the POS terminal. The coupon processing server database application may search for the coupon code (e.g., GS1 code) assigned to the coupon card 822. For active coupons, in an embodiment, the first eleven or twelve digits/ alphanumeric characters of the coupon code consisting of the NSC (Number System Code), Manufacturer Number, Family Code, and Value Code may be transmitted back to the POS

terminal 824 in a message package that identifies the retailer and the POS terminal (second coupon related information). In other embodiments, a different number of digits/alphanumeric characters may be used. The software application at the POS terminal initiates a validation process of each coupon code received against the product(s) purchased 826. For any coupon redeemed, the corresponding coupon code may be sent back to the coupon processing server 828 along with the triggering UPC code of the corresponding product purchased as well as identification of the retailer and POS terminal and time of purchase (third coupon related information). The coupon processing server database application updates the unique coupon card account number with the redeemed coupon codes 830. Furthermore, the coupon processing server may then retrieve the remainder of the GS1 code (i.e., the GS1 code that was not transmitted to the POS terminal) of each redeemed coupon and report this information as part of a report to the corresponding CPG manufacturer. The invention is useful for providing market intelligence quickly to a manufacturer, a benefit not known to be provided by current technologies.

[00035] An alternative embodiment is provided in FIG. 9. The unique coupon card account number may be written to an MICR strip on the coupon card 902. The magnetic strip side of a coupon card is shown 904. The coupon code may be assigned to the card on the coupon processing server centralized database 906. A consumer may slide the coupon card through the MICR reader during a POS transaction 908. The POS software application may transmit the read unique coupon card account number to the coupon processing server 910 as part of a message package that identifies the retailer and the POS terminal (first coupon related information). The coupon processing server may check to determine if the unique coupon card account number is valid 902. If the account number is not valid, the coupon processing server may return a decline message to the POS software application 914. If the account number is validated, the coupon processing server database application may search for coupon codes assigned to the coupon card 916. A determination may be made as to whether there are active coupons available on the coupon card 918. If not, the coupon processing server may return a no coupons available message to the POS software application 920. If the coupon code is validated, active coupon codes (e.g., system 5 or 99 codes) assigned to the card may be transmitted back to the POS for validation against purchases 922 as part of a message package that identifies the retailer and POS terminal (second coupon related information). For example, the first 11 digits of the coupon code may be transmitted to the

POS terminal for validation 922. A determination may be made as to redemption of the coupon(s) 924. If there has been no redemption of the coupon(s), the POS may resume the transaction 926. For coupons which are redeemed, the POS may send back the redeemed coupon code of the product which triggered the coupon redemption to the coupon processing server centralized database 928 along with the original redeemed coupon code information, the location of the retailer, identification of the POS terminal, and time of purchase (third coupon related information). The coupon processing server centralized database application may update the unique coupon card account number with the time, date, amount, location, and other information relating to the redemption activity 930. The coupon processing server may generate a report to the manufacturer regarding the coupon redemption transaction as requested or periodically to provide quick market intelligence to a CPG manufacturer.

[00036] Embodiments of the method of the invention may be implemented through instructions, stored on a computer-readable medium on a data storage device, which when executed by a computing device, cause the computing device to perform the designated operations. The instructions may be stored in computer-readable medium in a distributed fashion across two or more computing devices or as a single computing device. The computing devices may be one or more of the above mentioned servers. In an embodiment, the computer readable medium may be a small flash drive that connects to a Universal Serial Bus (USB) port of a POS terminal, a retailer server, or the like. For example, a small flash drive may measure less than about 10 cm X 3 cm X 3 cm or may have pen-sized dimensions, such as 71 mm x 20 mm x 8 mm.

[00037] In an embodiment, a computer readable medium storing computer code for processing coupons across a network in response to the non-optical reading of a coupon card, includes computer code for reading identification code from a coupon card that is non-optically read at a Point of Sale terminal; computer code for processing and formatting the read identification code; computer code for transmitting the formatted identification code across the network; computer code for receiving, interpreting, and validating the identification code at coupon processing server; if the identification code is validated, computer code for retrieving coupon codes corresponding to the identification code from a centralized database; computer code for transmitting the retrieved coupon codes to the Point of Sale terminal via the network; and computer code for redeeming the coupon codes.

[00038] The coupon processing server coupon distribution and processing system and method offers advantages including 1) being easy to use, 2) saving time and money, 3) providing better validation, 4) expanding promotion tracking, 5) increasing response rates, and 6) reducing fraud. The coupon processing server coupon distribution and processing system and method are easy to use because there is no clipping or organizing of coupons and the coupon card may be discarded after the coupons are redeemed. The coupon processing server coupon distribution and processing system and method saves time and money because it avoids the manual counting and clearing of paper for both retailers and manufacturers. Coupon processing server coupon distribution and processing system and method coupons clear electronically so that financial settlements may be completed in a short period of time, such as hours, rather than weeks or months. Coupon coding errors may be corrected immediately as manufacturers avoid the handling of misprinted coupons that may circulate for months at a time. The coupon processing server coupon distribution and processing system and method provides better validation because the expiration dates are enforced by the coupon processing server. Expired coupons are recognized as such and are not sent to the POS for validation. Paper coupons may not be redeemed at a POS because of a faulty barcode or improper coding or printing. With the coupon processing server coupon distribution and processing system and method described herein, the use of a magnetic ink character recognition strip or RFID eliminates the problem of poorly printed barcodes. Invalid coupon codes may be corrected immediately in the centralized database. The coupon processing server coupon distribution and processing system and method expands promotion tracking with the real time reporting of coupon redemptions. Manufacturers are provided with the product information for the product the consumer purchased to trigger the coupon redemption. Manufacturers may track results at the individual household level by assigning unique numbers to the extended portion of the coupon code's application identifier.

[00039] Embodiments of the coupon processing server coupon distribution and processing system and method described herein also increases response rates by making the process of collecting and redeeming coupons easier and more in line with today's technology. The coupon processing server coupon distribution and processing system and method further reduces fraud as each coupon may be redeemed only once. Advantageously, the coupon processing server coupon distribution and processing system and method centralized database, in accordance with embodiments, does not transmit to the POS a coupon which has

already been redeemed. The coupon processing server coupled to the centralized database may also track in real time redemptions by store. Alternatively the centralized database may have one or more coupon processing processors built into it. Each redemption transaction has a date and time stamp. Abnormal transaction volumes from a particular store may be identified to prevent store personnel and/or others from fraudulently redeeming coupons for personal gain, to meet or exceed sales goals, and the like. The coupon processing server coupon distribution and processing system and method may prevent the assembling of a large volume of newspaper inserts to redeem coupons without selling the corresponding product. In another example, if someone were to determine how account numbers are generated on the coupon cards, the coupon processing serve may monitor in real time the volume and traffic of redeemed coupons and identify abnormalities to prevent coupon counterfeiting.

[00040] A further advantage is that embodiments may be implemented to provide a direct competitor to various marketing services by distributing coupon cards through Direct Mail, In-Store, and FSI or implemented as a service provider to marketing services. For example, marketing services companies may be charged for the distribution of coupons on the coupon processing server in which case the business model may be executed with less expense.

[00041] If a coupon is determined to be valid, but the retailer is temporarily out of stock, provisions may be made to issue a rain check electronically. The electronic rain check may be stored in the centralized database. Alternatively, in lieu of a rain check, the coupon processing server may offer a different product of the manufacturer at a special rate to the consumer.

[00042] As part of the system and method of the invention, in an embodiment, in-store scanners may also be provided to allow a consumer to reveal unexpired and unused coupons available through his or her coupon card.

[00043] In an embodiment, Consumer Package Good's (CPG) manufacturers may create and maintain their own shopper card program. For example, CPG manufacturer A may offer consumers a program in which each consumer or consumer household may sign up for a permanent card number. A consumer using such a coupon card may supply sufficient identification at the Point of Sale. This identification may include a driver's license, a passport, or other identification means, such as entry of a special code or biometrics scanning. The consumer, upon enrolling in a CPG manufacturer's program and being

assigned a permanent coupon card, may then select discounts from CPG manufacturer A's web site in which the discounts would then be assigned to that permanent coupon card through a registration process using a centralized database of CPG manufacturer A.

[00044] Although some embodiments have been described with the use of a coupon card, embodiments of the invention may be practiced without a coupon card. Embodiments of the invention realized without a coupon card may be found in Figs. 10-17 and 21. The embodiments described in Figs. 1-9, in which a coupon card can be employed may also be adapted to not use a coupon card and instead to either permit a consumer to opt-in to coupons, promotions or incentives or permit a consumer to receive a discount on a product having a target UPC when the target product and/or a trigger product are purchased. A coupon as used herein is generally a paper, plastic, or other sufficiently physically durable incentive or discount having a manufacturer's UPC bar code to identify the product being discounted. It may generally be delivered via an FSI or direct mail where paper is the delivery vehicle. An incentive may be a non-paper (e.g., purely electronic) discount (e.g., a discount not embodied on a physical medium) provided via an in-store, web or mobile device delivery. Both coupons and incentives may provide a vehicle for delivering discounts that the ICN technology captures when the UPC bar code of a product being purchased is scanned at the POS terminal. A promotion may be the event that delivers coupons and/or incentives. An FSI paper coupon is an example of a promotion. An in-store tag incentive offering a discount for buying two of an item is another example of a promotion.

[00045] In addition to the embodiments referenced above in which media companies which produce media products may be provided with multiple coupon offers like FSI's, (Free Standing Inserts) a control number to avoid multiple redemptions of the same coupons, and the ability to track redemptions based on circulation, embodiments of the invention also can allow for activation of coupons based on or only on the contents of the consumer's basket, or allowing the consumer to opt into promotions via the internet or mobile device. This can allow for consumers to participate in in-store media promotions based on or only on the occurrence of the promoted products being present in the consumer's transaction at the POS.

[00046] The ICN system can facilitate incentive management 1402. As an embodiment of a method of incentive management, FIG. 14 shows that ICN may assign each third party (e.g., a retailer, a media company, or a manufacturer) a unique identifier 1404 to securely log into the ICN promotion manager, a web application used for incentive management and real time

reporting. A retailer headquarters 1406 may send redemption data validation of offers corresponding to the UPC 1408. A manufacturer may receive detailed redemption reports in real time 1410. The ICN may receive redemption information as an independent third party reporter of validation and redemption 1412. The ICN may generate complete redemption reports and submit these to the CPG manufacturer or distributor if there are no disputes 1414. The ICN may activate a bank automated clearing house (ACH) transfer to a retailer for incentive and handling/ media charges 1416. Information regarding the automated clearing house (ACH) transfer may be sent to the ICN accounts receivable (A/R) management 1418 which may then generate invoicing summaries and accounts/ receivables reports that may then be electronically submitted 1420 to retailer headquarters 1406.

[00047] The ICN promotion manager may be a secure portal that enables complete promotion set-up and control and serves as a user interface for defining retailer identity, promotion composition, and promotion availability. The promotion manager may be implemented as a web application, and be available on any computer with a web browser, such as Microsoft Internet Explorer, and an Internet connection. Access to the promotion manager may be controlled by ICN through managed user ID and passwords.

[00048] FIG. 15 illustrates an embodiment of a method of invention. Manufacturers, media companies, or retailers may enter weekly promotion details at a single entry point through the ICN promotion manager secure web site 1508. This may be done through an online through a program or portal on the world wide web 1510. For example, a representative for a manufacturer, media company, or retailer using the ICN promotion manager may establish start and stop dates of the promotion, the products affected, whether there is a trigger product and target product relationship, etc. A media company, manufacturer, or retailer may review the promotion data and submit to production for promotion execution 1502. Promotion execution may involve in-store signage, online coupons, in-store kiosks, mobile devices, PDAs, etc. in which, e.g., a Brand X, Product Y is offered 1504. A shopper who sees instant savings products in-store and on the shelf may select such products 1506. Instant savings can be applied at checkout with all instant savings showing on the receipt 1512. The ICN POS bridge software installed on the retailer's POS system (e.g., POS controller) or other device provides transaction information to the ICN. Then, the ICN can run redemption reports on the ICN promotion clearing application and provide the results, and can make any needed settlement, e.g. billing and payment, between the manufacturer and the retailer 1516.

[00049] Consumers may opt into Internet based promotions or mobile device promotions by identifying themselves and purchasing the qualified products in which the consumer might not have a physical card to present. During the checkout process the consumer may identify himself or herself uniquely by entering their unique ID entered when he/she opts into the promotion on the retailer, manufacturer, or media company web site. The unique ID may be included in the transaction information along with the UPCs or products purchased and transmitted in real time to the ICN server. Or, the consumer may opt into the promotion anonymously. When the consumer opts in, he or she may use their phone or other number as the account number which the coupon(s) would be assigned to. For example, he or she may provide his or her phone number to the cashier or type it in on the keypad during checkout, or the consumer's mobile device or cell phone may have an image containing the consumer's cell phone number which may be scanned by the cashier. He or she may also opt in using the particular retailers frequent shopper card number, the coupon(s) would be tied to the presence of that card number or phone number in the POS transaction.

[00050] Fig. 12, as Figs. 12A and 12B, shows an embodiment of a process for setting up and using trigger and target UPCs to qualify a coupon or promotion during a transaction. In the method of setting up trigger and target UPC promotions 1202, shown in Fig. 12A, the media company, manufacturer, or retailer logs into the secure ICN web based promotion manager application to create a promotion 1204. The media company, manufacturer, or retailer may define a promotion start and end date 1206, may define the manufacturer coupon by information such as UCC extended type (e.g., 8100 or 8101) 1208, and may provide UCC coupon barcode component information 1210, such as number system code, manufacturer number, family code, value code, manufacturer offer code, and expiration date 1212. The media company, manufacturer, retailer or other party may enter each of the trigger UPCs and defines the product that must be purchased corresponding to each individual trigger UPC 1214. The media company, manufacturer, retailer or other party can also enter the target UPCs and can define the produce that must be purchased corresponding to each individual trigger UPC 1214. The media company, manufacturer, retailer or other party can also enter the target UPCs and define to which product a specified coupon may be applied 1216. The media company, manufacturer, retailer or other party can advertise the sale arrangement of the trigger UPC and target UPC by various techniques, such as signage in a store such as a

display (e.g., in-store shelf ads), printed materials, electronic sign (e.g., floor graphics), or through an in-store kiosk or through advertisements on a web site 1218.

[00051] Coupons may have trigger UPCs and target UPCs that are the same. That is, the UPCs which trigger the coupon are also the same UPCs which the coupon is applied to. For example, buy two of product C, save \$ 1.00. In more complex coupons and promotions, the trigger and target UPCs may be different. For example, buy product C and save \$ 1.00 on product D.

[00052] Fig. 12B shows an embodiment of a method for using trigger and target UPCs that may be used in conjunction or separately from the method shown in Fig. 12A. Here, at a retail site, the consumer may place products which correspond to defined and advertised promotions created using the ICN promotion manager application with trigger and target UPCs in a shopping cart, perhaps as a result of promotional signage at the retail site 1220. The media company, manufacturer, or retailer may send the consumer opt-in information to the ICN database in real time 1222. While shopping, a consumer may select the trigger and target UPCs which are promoted online or otherwise 1224. During checkout, the consumer may present their unique ID which they used to opt into the Internet promotion 1226. Then, all the UPC codes of the products then in the shopping cart may be transmitted in real time using the ICN POS bridge software installed on the retailer's POS controller and POS terminal to the ICN promotion redemption real time service running on the ICN server in a promotion request message 1228. The ICN real time application may search the ICN database to locate any active promotions the consumer may have opted into 1230. The ICN promotion redemption real time application can compare the purchased UPCs to all active promotion trigger and target UPCs in the ICN database to determine any tie in or bundling relations, for example, ones in which the purchase of a product with a trigger UPC would provide a discounted price for the purchase of the product with a corresponding target UPC 1232. In an example, for any active coupon or incentive, the first 11 digits only of the extended UCC coupon code, the target UPC, and target UPC price may be transmitted back to the point-of-sale terminal 1234. The point-of-sale application attempts to validate each coupon code against the corresponding product purchased 1236. For any coupon or incentive redeemed, the coupon code and target UPC may be sent back to the ICN promotion redemption real time application in the form of a promotion confirmation message 1238. The ICN promotion redemption application may update the ICN database with real time redemption data

including the coupon redeemed and trigger and target UPCs 1240. At some point, media partners, retailers, and manufacturers may log into the ICN database to view real time redemption data 1242, 1244.

[00053] The retail POS controller, the POS terminal, and the ICN server may each include a processor, as discussed previously, and may have one or more associated memories as well as interfaces for communication with other devices.

[00054] In an embodiment, if the ICN promotion redemption real time application or the ICN database server is experiencing down time, the ICN POS bridge software installed on the retailer's POS controller may automatically fail to a backup ICN promotion redemption real time application and a mirror database maintained by the ICN.

[00055] In accordance with yet another aspect of the invention, the ICN can be used to deliver coupons and promotions to a consumer who has opted into a coupon or promotion by visiting the retailer, manufacturer, or media company web site. In this embodiment of the invention, the retailer, manufacturer, or media company can transmit in real time or batch the consumer opt-in information to the ICN database. The consumer opt-in information may include, but is not limited, to a customer identification number which may be but is not limited to the consumer's phone number or frequency shopper identification number, the coupons, incentives, or promotions the consumer opted into and the details of the coupon, promotion, or incentive. The coupons, incentives, or promotions may be retrieved by the ICN promotion manager web application and sent over a network or directly communicated to CPG or CPG media partner which may then provide the coupons, incentives, or promotions as the in-store promotion display or advertisement. Opt-in permits the consumer to participate in promotions without the requirement of printing the coupon at home and bringing it into the store to redeem.

[00056] An embodiment where a consumer may opt-in to retrieve a coupon is shown in Fig. 11. Here, a media, manufacturer, or retailer web site 1102 or other party may display one or more selectable coupons for downloading or other retrieval, such as fax to a consumer at a terminal. The media, manufacturer, retailer or other party may be provide promotion or coupon details to the ICN either by manually entering the information into the web based ICN promotion manager application 1118, or by transmitting the information via a web service or batch mode to the ICN promotion manager application 1118, including coupon

codes, expiration dates, store location, and trigger and target UPCs. When the consumer visits 1104 the media, manufacturer, or retailer web site 1102 and presents his or her identification, coupons with control numbers selected by the consumer may be printed out or downloaded to the ICN promotion manager 1118 and the ICN database 1116. When the consumer visits the retailer's store and has been provided with knowledge as to available coupons, upon checking out a transaction at a point-of-sale terminal 1110 or other terminal, such as when shopping from home, the point-of-sale terminal or other terminal may provide transactional information, such as UPCs or other product information through the ICN POS bridge software 1111 installed on the retailer POS terminal 1110 to the ICN POS bridge software 1109 installed on the retailer's POS controller 1108. At this point, the ICN POS bridge software 1109 installed on the retailer's store controller 1108 may format a promotion request message and send the promotion request message in real time from the retailer's headquarters 1122 to the ICN promotion redemption real time service 1113, via a network, such as a retailer's wide area network 1124, which is running as a real time service on the ICN server 1114. The ICN promotion redemption service 1113 may compare the UPCs contained in the promotion request message to all active promotions defined by the manufacturer or its representative on the ICN database 1116. For an active promotion where the UPCs contained within the promotion request message satisfy the requirements of that promotion, the ICN promotion redemption service may format a promotion request response message which may include portions of the manufacturer coupon code as shown in FIG. 6 plus the target UPC number of the product the manufacturer coupon may be applied to. The promotion request response message may then be sent back to the ICN POS bridge software 1109 installed on the retailer's store controller 1108 via the retailer's wide area network 1124 (or, other network) and the retailer's headquarters 1122. The ICN POS bridge software 1109 installed on the retailer's store controller 1108 may be located at one or more or each of the retailer's stores and may then transmit the message to the ICN POS bridge software 1111 installed on the retailer's POS terminal 1110. The retailer's POS terminal 1110 may attempt to redeem the manufacturer coupon against the target UPC contained in the promotion request message. Upon completion of the checkout transaction 1106 the ICN POS bridge software 1111 may generate a redemption confirmation message which may contain information regarding the success of the coupon redemption process. The redemption confirmation message may be transmitted to the ICN POS bridge software 1109 installed on the retailer's store controller 1108 which can transmit the redemption confirmation message to the ICN promotion real

time redemption service 1113 running on the ICN server 1114, completing a communication loop. In an embodiment, access to the ICN database 1116 is provided only through the ICN server 1114.

[00057] The details of the coupon, promotion, or incentive may include NSC Number, Manufacturer Number, Family Code, Value Code, Application Identifier, Product NSC, MOC Code, Expiration Date, Application Identifier, Household Number, Trigger UPCs, Target UPCs, and participating store information may be stored in the ICN Database 1116 and used to validate the purchases in real time by the ICN Network Server 1114. Portions of the Manufacturer coupon, promotion, or incentive may be sent down by the ICN promotion redemption service 1113 to the ICN POS bridge software 1109 installed on the retailer's POS controller 1108 and passed to the ICN POS bridge software 1111 installed on the POS terminal 1110, and then delivered to the active checkout transaction 1106. An ICN promotion manager 1118 may set up coupons and/or promotions over a network 1120 at a media, manufacturer, or retailer web site 1102 using the ICN database 1116.

[00058] In accordance with another aspect of the invention, coupons or incentives may be delivered to the consumer based on or entirely on the presence of specific UPCs or products contained in the consumer's transaction at the POS during checkout. An example of this embodiment is a media company advertising a savings, incentive in-store, on the web or via a mobile device which would only require the consumer to purchase the required UPCs or products to activate and receive the coupon or savings.

[00059] FIG. 10 shows an embodiment in which coupons are delivered based on the presence of specific UPCs or products in the consumer's transaction 1004. An in-store or online or mobile device promotion may display or advertise products on promotion or at a discounted price 1002. The promotional information may come from a manufacturer or its representative which sets up sale or discount information and interacts with the ICN promotion manager 1016 (e.g., web application) to store this sale or discount information and other promotion details in the ICN database 1014. Upon the start of a checkout transaction 1004 at the POS terminal 1006 the consumer can present a collection of products with UPCs 1004 to be purchased for scanning by the POS scanner or by manual entry through the keyboard by the cashier. In further accordance with the embodiment, the basket of UPCs or products 1004 is communicated by the POS terminal 1006 by means of the ICN POS bridge software 1007 installed on the POS terminal 1006 to the retailer's store controller 1008 which

also may contain ICN POS bridge software 1009. The ICN POS bridge software 1009 installed on the retailer's store controller 1008 may be located at one or more or each of the retailer's stores and may format a promotion request message and send the promotion request message in real time via the retailer's headquarters 1022 and the retailer's wide area network 1024 from the retailer's headquarters 1022 to the ICN promotion redemption real time service 1013, which is running as a real time service on the ICN server 1012, via a network, such as a retailer's wide area network 1024. The ICN promotion redemption service 1013 may compare the UPCs contained in the promotion request message to all active promotions defined by the manufacturer or its representative on the ICN database 1014. For any active promotion where the UPCs contained within the promotion request message satisfy the requirements of that promotion, the ICN promotion redemption service may format a promotion request response message which includes portions of the manufacturer coupon code Fig. 6 plus the target UPC number of the product the manufacturer coupon is to be applied to. The promotion request response message may then be sent back to the ICN POS bridge software 1009 installed on the retailer's store controller 1008. The ICN POS bridge software 1009 installed on retailer's store controller 1008 may transmit the message to the ICN POS bridge software 1007 installed on the retailer's POS terminal 1006. The retailers POS terminal 1006 may then attempt to redeem the manufacturer coupon against the target UPC contained in the promotion request message. Upon completion of the checkout transaction 1004 the ICN POS bridge software 1007 may generate a redemption confirmation message which may contain information regarding the success of the coupon redemption process. The redemption confirmation message is transmitted to the ICN POS bridge software 1009 installed on the retailer's store controller 1008 which may transmit the redemption confirmation message to the ICN promotion redemption service 1013 running on the ICN server 1012 which then may complete the communication loop. In an embodiment, access to the ICN database is provided only through the ICN server 1012.

[00060] The POS data bridge may be implemented as at least one device with software that may be a configurable software suite that is physically installed on the POS environment (controller, and/or terminals, etc). The ICN Data Bridge may control various POS behavior based on information sent and received to and from the ICN server(s). The POS data bridge software, in an embodiment, may have two distinct parts: one installed on the POS controller in a store and the other installed on each POS terminal in a store. Versions of the POS data

bridge software may be adapted as needed or desired for each unique POS vendor (e.g., retailer). In a specific example, a POS data bridge software may be provided for IBM 4690 POS systems in a grocery retail setting or other POS solutions for retail, supply chain, and/or distribution operations of enterprises. This may include but is not limited to:

- Transaction & basket information needed for promotion qualification being sent to ICN server(s) via a Promotion Request. This information may include (but is not limited to) data such as store, lane/terminal, transaction number, cashier, date/time, loyalty card(s), and all scanned data, including for normal, void, etc. scenarios.
- Coupon & promotion information being received from ICN server(s) via a Promotion Response. The data bridge software may receive promotional coupon and/or incentive information back from the ICN servers to the POS terminals via the POS controller(s) and the retailer's HQ, where the promotional coupon and/or incentive information includes but is not limited to the coupon code/number, ICN promotion number, value of the coupon, target item(s) which the coupon should be applied to, and text to display on the receipt describing each coupon, both for normal and void scenarios.
- Coupon & promotional information being sent to the ICN server(s) via a Redemption Confirmation. This may include but is not limited to information such as the coupon's value (for hard to handle coupons such as buy x, get x free), the ICN promotion number, the coupon code/number, the tlog date/time (the date/time logged to the tlog's transaction header record is typically the time of the last activity of the transaction), the gross transaction total, etc. both for redeemed promotions or coupons and also for voided promotions or coupons.
- Receiving from the ICN server(s) a Redemption Confirmation Acknowledgement that all redeemed coupons were received and passed validation, or that the redemptions were invalid for a noted reason.
- Voided Transaction notification being sent to the ICN server(s) via a Voided Transaction message. In the POS world this indicates the entire transaction is over and everything within is considered null and void.
- Voided Transaction Acknowledgement being received from the ICN server(s) indicating ICN has considered all activity from that transaction null and void.

- POS status information being sent to the ICN server(s) via a Client Status Update message. As part of regular network diagnostic updates, the ICN Data Bridge updates ICN with information such as but not limited to the number of lanes attached to a controller, the average response time the POS is experiencing for message round trips, the number of erroneous or dropped message scenarios, the store number, the POS version and vendor, the ICN Data Bridge and ICN API versions, the current date/time, the date/time the ICN service started, etc.
- Receiving from ICN server(s) a Client Status Update Acknowledgement.
- Sending and Receiving message faults to and/or from the ICN server(s) when erroneous or unexpected scenarios are encountered.

[00061] The ICN Application Programming Interface (API) may be a piece of ICN code built into the data bridge which controls 1) the encoding / decoding of ICN messages in either XML or ICN's binary format. The XML message encoding protocol capability enables 3rd party integrators leveraging devices that do not send as many messages as a POS does, and greater ease of integration. The binary message encoding protocol is compact, designed for speed and lower bandwidth requirements, which lends well to retailers with many stores that each have many lanes.

[00062] The communications between the retailer's POS controller 1008 and the retailer's headquarters 1022 may be any transmission control protocol/ internet protocol (TCP/IP) communication network. For example, the TCP/IP communication network may be the retailer's wide area network 1024. Other examples of TCP/IP communication networks that may be used include digital subscriber line (DSL), T1, integrated services digital network (ISDN), multiprotocol label switching (MPLS), etc. The retailer's headquarters 1022 itself may be a centralized point within the retailer's wide area network to which the ICN bridges via ICN bridge software for all network connectivity. It may be the ICN's entry point into the retailer's network (e.g., WAN). The retailer's headquarters 1022 may be the data center (e.g., single node) that facilitates communications with the ICN server or may be a multi-node such as for major tier 1 retailers widely distributed geographically. The communications network between the POS controller 1008 and retailer's headquarters 1022 may also be used between the POS controller 1108 and retailer's headquarters 1122. The retailer's headquarters 1122 may be the same kind of retailer's headquarters as retailer's headquarters 1022.

[00063] In another embodiment, FIG. 21 shows that the ICN server 2112 communicates with the retailer headquarters 2122 of a retailer's WAN 2124. Within the retailer's WAN 2124, the retailer POS controller 2108 communicates with the retailer headquarters 2122 via the ICN POS bridge software installed on the POS controller 2108. The POS terminal 2106 may communicate with the retailer POS controller 2108 via the ICN POS bridge software installed on the POS terminal. Operations of analogous system components are otherwise similar to those disclosed in FIGs. 10 and 11. The local store network comprises the interconnections between POS controller 2108 and POS terminal 2106 which permit communications between the POS controller ICN POS bridge software 2109 and the POS terminal ICN POS bridge software 2107 and any other communications between the POS controller 2108 and the POS terminal 2106. These interconnections may be cable, radio frequency, optical, and/or the like. The ICN POS bridge software 2109 may communicate also with the Promotion Redemption Service of the ICN server. The local store network may also be referred to as the store loop and may comprise the cabling within a single retail store that connects all the POS terminals to the POS controller of the store. The in-store promotion display or advertisement 2102 (1002, 1102) may be physical signage, displays or end caps without an electronic hardware or may be an electronic display that may receive communications from a CPG or CPG media partner.

[00064] In an example of an embodiment of communications between a POS terminal and the ICN server, a promotion request message may be sent by the POS terminal to the ICN server and a promotion response message may be sent in reply by the ICN server to the POS terminal. The POS terminal and the POS controller may communicate through the retailer's WAN through their respective data bridge software in a sequential flow of information where the POS terminal does not communicate directly with the retailer headquarters. In this example of an embodiment, the exchange of messages may follow the following routing. In transmitting the POS terminal may send the promotion request message to the POS controller through the local store network (the local store network may correspond to the retailer's WAN), and the POS controller may send the promotion request message to the retailer headquarter (or, hub or switch) via the retailer's WAN to the ICN promotion redemption real time service (PRS) of the ICN server whereupon the ICN PRS may access the ICN database via the ICN network (e.g., internal ICN network). In reply, the ICN PRS, having accessed the ICN database through the ICN PRS, may send the promotion response message to the retailer

headquarters via the retailer's WAN, the retailer headquarters may send the promotion response message to the POS controller via the retailer's WAN (in this and similar embodiments, neither the POS controller nor the POS terminal communicates directly with the ICN server), the POS controller may receive the promotion response message via the retailer's WAN, and may send the promotion response message via the local store network to the POS terminal.

[00065] An embodiment of an ICN system of the invention is shown in FIG. 17. An ICN promotion manager web application ASP.NET 1702 may access an ICN database 1702, such as an SQL server. An example of such a manager web application is a promotion manager. Point-of-sale terminals 1712, 1714, 1716 or similar devices may, during validation and redemption, access an enterprise's computer system 1708 through a retailer controller 1710. In each point-of-sale terminal 1712, 1714, 1716 or in a memory accessed by the retailer controller 1710 may be installed an ICN point-of-sale data bridge software that may be installed on the retailer's system which enables communications between the ICN server and the retailer's point-of-sale system. The enterprise's computer system 1708 may use the ICN redemption service 1706 (e.g., through a Windows service C#.NET) to access the ICN database 1704.

[00066] Various embodiments are contemplated by the invention. In one embodiment, a single ICN server may serve one or more retailers (different business entities). The number of retailers assigned to a single ICN server may depend on the size and number of divisions of the retailer. In another embodiment, multiple ICN servers (e.g., virtual servers) may be hosted on the same single ICN server such as be leveraging technology such as VMWare or logical partitions. In other embodiments, a single ICN server may be dedicated to a retailer. Other embodiments are contemplated by the invention.

[00067] In FIG. 17, embodiments may include various underlying retailer WAN configurations and T1 network line (e.g., VPN tunnel, T1, frame, ISDN, DSL, Fiber). The retailer POS terminal may have its own addressable IP and not leverage a POS controller such that the POS terminal can communicate directly with the retailer's HQ. The retailer headquarters (HQ) may be a central network connectivity point, such as a hub or gateway, of the retailer which interfaces with the ICN server. At least one of geographical telephony/communications, company capabilities, bandwidth requirements, and preference may factor into the selection of network connectivity between the ICN server and the retailer. The

configuration and type of the ICN server may vary in accordance with the size of the retailer and the compatibility and performance of available technology.

[00068] FIG. 16 illustrates an embodiment in which promotion data entry personnel may set up trigger products and target products through a trigger product window 1606 and a target product window 1604. Other embodiments may provide data entry through a single window such that a relationship may be established between a trigger product and one or more target products. The relation of trigger-to-target products may be one in which a discount is offered on the trigger product which is treated as a target product when a certain condition is met, such as buy 2, get the third free. Or, the relation of trigger-to-target products may require the purchase of a Brand A Product Y to receive a discount on a Brand A Product Z or even a discount on Brand B Product W. Various trigger-to-target product relationships are contemplated including bundling.

[00069] With embodiments of the invention, coupons may be provided for multiple promotions; for example, dental floss may be discounted with the purchase of toothpaste and a toothbrush. Multi-tiered offers involving price are also contemplated; for example, if brand X product is \$ 2, a retailer card holder may receive the brand X product for \$ 1.50 and, if the customer is in the top 20% of the retailer's customer base, may receive the brand X product for \$ 1, among other types of offers. In an example, a CPG company may partner with a retailer or a non-competitive CPG company to offer a discount when the consumer buys both products of both. For example, a consumer may buy Brand C cereal and obtain a pound of Brand D bananas at no extra charge or may buy a jar of Brand P peanut butter and receive a \$ 1 discount on Brand J jelly.

[00070] FIG. 13 illustrates an embodiment of ICD data flow. In this particular example, when a point-of-sale transaction is complete and the total key has been pressed 1302 at checkout, or after X number of items have been scanned, X being a configurable whole number with a value of, for example, 5 to 9, the ICN point-of-sale data bridge software may collect information about the items in the customer's transaction and transmit this information to the ICN POS bridge software installed on the POS controller. The ICN POS bridge software on the POS controller may build a promotion request message and transmit it over a network, such as a wide area network, to the ICN real time promotion redemption service 1304. In response, the ICN real time promotion redemption service may receive the promotion request and may match items in the transaction with prospective promotions

defined in the ICN database, may build a promotion response message, and transmits it over the network to the ICN POS bridge software on the POS controller which sends the promotion response message to the POS terminal which originated the promotion request via the ICN POS bridge software 1306. The ICN promotion redemption service may be configured to optionally await confirmation of redemption for the promotions to be delivered in the promotion response message 1308. If no confirmation is required, the redemption process is complete 1316. Otherwise, the ICN point-of-sale bridge software identifies each promotion that has been redeemed, may build a redemption confirmation request message, and may transmit the redemption confirmation request message over the network to the redemption service 1310. The ICN promotion redemption service may then optionally send an acknowledgement to the point-of-sale for receipt of the redeemed promotion list 1312. If an acknowledgement is required, the ICN promotion redemption service can accept the list of redeemed promotions, build a redemption confirmation response, and transmit the redemption confirmation response over the network to the point-of-sale data bridge 1314. Redemption may then be complete 1316.

[00071] Embodiments of the invention enable third party offer providers to communicate through one entry to point of sale and identify duplicate offers (e.g., promotion collisions). The embodiments may be practiced partly (but not entirely) through or entirely through rules-based approvals.

[00072] Embodiments of the invention can offer detailed real-time redemption data that can be available 24 hours per day, 7 days per week via the secure ICN promotion manager application and summary redemption data that can allow a manufacturer, media company, or retailer to track promotion performance and budget in real time. An advantage of the embodiments of the invention is that ICN technology may not require any coupon or promotion definition data be sent ahead of time to the retailer because the ICN server in conjunction with the ICN database can maintain and update the coupon offerings of client retailers, manufacturers, and media companies.

[00073] Embodiments of the invention having automated clearing house processing by an originating financial institution are illustrated in Figures 18-20. At least one embodiment illustrated in each of Figures 18 and 19 may represent a separate system from the ICN coupon and/or incentive processing system. At least one other embodiment in each of Figures 18 and 19 may integrated with the ICN coupon and/or incentive processing system. In an

embodiment, the ICN billing database may feed the ACH process with the redemption information to create the ACH financial debit or credit in which case the ACH system is subordinate to the ICN system.

[00074] In embodiments of the invention, an ICN automatic clearing house (ACH) processing system may be used with the Intelligent Clearing Network. An example of an ACH processing system (or, subsystem) is shown in Figure 18. The automatic clearing house system may provide an automated interface between ICN's internal billing system and the ACH network provided through the Originating Financial Institution 1812. The ICN ACH processing system 1808 may create ACH files 1810 to send to the Originating Financial Institution 1812 based partly on debit/credit summary information from each ICN retailer database 1802, and partly on account/ routing information stored on a secure file transfer protocol (FTP) server 1804. The ICN ACH processing system 1808 may also take care of transmitting the resulting ACH files 1810 to the Originating Financial Institution 1812 via transport layer security (TLS) FTP.

[00075] In at least one embodiment, the Promotion Manager may be the input mechanism for setting up any type of promotion, the ICN technology may then clear the promoted items electronically and capture the redemption information, and the ACH sub-system (or, financial settlement system or sub-system) may receive the captured redemption information as input and based on the captured redemption information electronically settle the financial obligations of participating parties (e.g., retailer, manufacturer, etc.). In at least one of the embodiments, the invention may be seen as providing a full circle of electronic incentive clearing through financial settlement.

[00076] An ACH processing system may be configured to have the following capabilities:

- Accumulation of transactions to process from each retailer database
- Accumulation of account / metadata information from secure FTP server
- Creation of ACH output file(s)
- Transmittal of ACH output file(s)
- Processing of return file(s) from the Originating Financial Institution
- Ability to process all unprocessed debits/credits
- Ability to process particular debits/credits
- Logging of results and debug information for troubleshooting

- Ability to schedule process(es) to run periodically

[00077] The first eight ACH processing system capabilities listed above may be provided by a software program (or possibly several programs), such as a C# program. The last ACH processing system capability listed above may be provided by scheduling the software program(s) to run periodically using a scheduler program, such as the Windows Task Scheduler. In this example, the C# program(s) may accumulate unprocessed debits/credit information for inclusion in the ACH output file 1810 by connecting to a centralized billing database 1806 residing on the secure FTP server 1804. The debit/credit information in this database may originate from data stored in each ICN retailer database in a table called PROMOTIONAL BILLING. The retailer-specific PROMOTIONAL BILLING tables may be populated by stored procedures that reside within each retailer database. The stored procedures may be responsible for summarizing detailed transaction data into debit/credit entries and for enforcing applicable business logic. The individual retailer databases may then periodically synchronize their billing information into the centralized billing database by means of SQL Server database replication.

[00078] The ACH processing system 1808 may supplement the debit/credit data it reads from the central billing database with account and routing information. The account and routing information may be required to reside on the secure FTP server and not be stored within the individual retailer databases. Since the central billing database may reside on the secure FTP server, sensitive account and routing information may be stored in the same database for convenience.

[00079] In addition to account and routing information, non-sensitive metadata may also be stored in the central billing database (for example, the exact ICN company name and transaction descriptions as they are to appear on customer bank statements). The ACH processing system may read whatever additional metadata it needs to complete the ACH file from the central billing database.

[00080] The following is a (partial) list of the type of information that may be needed when producing an ACH output file 1810 (items marked with a * are mostly unchanging in contents or value, i.e., they are static values):

- Processing bank routing/transit number (i.e. routing/transit number for the Originating Financial Institution)*

- Originator # (i.e. ICN's Taxpayer ID) *
- Processing bank name (i.e. Originating Financial Institution)*
- Origin Name (i.e. ICN)*
- Descriptions / optional data as we want it to appear on people's bank statement*
- Routing/transit number for any account that might receive a debit/credit
- Account # for any account that might receive a debit/credit
- Name for any account that might receive a debit/credit
- Entry class code*

[00081] The C# program may create an ACH output file based on the debit/credit information that has been accumulated as a result of the selected program options. In an embodiment, only a single output file may be created per processing run; however, the C# program may be extended if necessary to support creation of multiple ACH output files in a single run (for example, if the debits/credits need to be logically separated into separate transmissions for business reasons, or if there happens to be a maximum size for each ACH transmission and the current debit/credit load would result in an output file that exceeds this limitation, or if the daily debit/credit volume limit is exceeded). The ACH output file may be written to a specified directory and named using a specified naming convention (e.g., as per instructions from the Originating Financial Institution).

[00082] The ACH file format/ record layout may be adapted for the Originating Financial Institution. For example, the ACH file format / record layout may comprise a form and/or functionality from one or more of the following:

- To calculate Entry Hash in the File Control record: sum the 8-digit routing numbers (excluding check digit) from all of the entry detail records, throwing out high-order digits if necessary to limit result to 10 digits.
- Blocks: A "block", within the context of an ACH file for the Originating Financial Institution, may be a collection of 10 records (the value 10, in a particular example, is derived from a Blocking Factor field in a File Header record; the Originating Financial Institution may require that this field to always contain the value 10). The blocks for the Originating Financial Institution may be specified to contain an even multiple of 10 records. If an ACH file contains a number of records that is not divisible by 10, "filler" records (consisting of 94 bytes containing the number 9 in each byte) may be added in this example until an even

multiple of 10 is reached. The Block Count field in the File Control record may then contain the total number of records in the file (including filler records) divided by 10.

- The File ID Modifier in the File Header record can contain any alphanumeric character. In an embodiment, the only requirement is that File ID Modifier be unique if more than one file is sent in one day. The C# program may use “A” for the first file, and may use “B”, “C”, etc. if needed.
- The Standard Entry Code field in the Company Batch Header record may contain either “PPD” or “CTX” to allow addenda information to be supplied.

[00083] Once the ACH output file(s) have been created, the ACH processing system may transmit the resulting file(s) to the Originating Financial Institution via TLS FTP. The ACH processing system may utilize the free command line utility (ftp client) “wput” for initiating a secure upload of each file over TLS FTP (to a remote ftp server). The C# program may initiate calls to wput for each file it creates.

[00084] The ACH processing system 1808 may need to check periodically for return files that are created by Originating Financial Institution 1812 and stored in the “Outbound” folder on Originating Financial Institution’s FTP server 1804. These files may contain information that may be of importance to ICN.

[00085] For example, Originating Financial Institution may create Notification of Change (NOC) files 1810 on a daily basis. These files may contain information like indications of debits/credits that didn’t process correctly and notifications of changes in account/routing information. The NOC files may follow the same file format as the ACH output files. The ACH processing system may need to periodically connect to the Originating Financial Institution FTP server via TLS FTP, look for NOC files, pull back any files that are detected, and take appropriate action (e.g., transmittal of an e-mail alert to a designated ICN officer if at least some of the information in the NOC file were to require a manual intervention of some sort).

[00086] The ACH processing system may have a command line utility analogous to wput (e.g., wget) for initiating a secure download of available files over FTP TLS.

[00087] The C# program can be initiated manually from the command line by typing in the program name and providing the appropriate arguments. By default, the program may process

all pending debits/credits. The C# program may allow a user to specify command line arguments indicating which debits/credits need to be processed, for example, in limiting processing based on a particular promotion, retailer, media partner, or individual debit/credit that has failed and needs to be re-sent. The C# program may create log entries for every run containing summary counts and debug information for troubleshooting purposes. The log file may have a specified naming convention and may be written to a specified directory on the FTP server. The C# program(s) may be scheduled to run periodically using the Windows Task Scheduler.

[00088] A billing system, as illustrated in Figure 19, may generate auditable incremental credit & debit based upon the information stored in the ICN retailer database for a given promotion and the detail present in the Redemptions structure.

[00089] For a promotion (at least one promotion or every promotion), the following entities, as shown in Figure 19, may exist for billing purposes and tie directly back to a promotion definition in the Promotion Manager:

1. Promotion Sponsor 1902 (who gets debited for the promotion's liability) The promotion sponsor is the party that has agreed to pay for the promotion activity. The promotion sponsor may be a retailer, a manufacturer, or another entity.
2. Retailer 1906 (who gets credited back for the promotion, plus x cents per redemption)
3. ICN 1904 (a transaction fee, clearing fee, and/or processing fee may be paid to ICN from a portion of money debited from the promotion sponsor)

[00090] Note that for each of the 3 entities above, there may be "billing rates" that dictate, by company ICN deals with, for credits and debits. The per redemption "billing rate" for debits and for credits can be separate and different for each company.

[00091] An example of a process for debiting and crediting between a retailer, the ICN, and the promotion sponsor.

- Step 1 – debit the promotion sponsor in the amount of coupons dispensed, plus ICN clearing rate, plus retailer credit rate 1903
- Step 2 – ICN hold funds debited for, e.g., minimum of 3 days, ICN keep clearing rate total debited from promotion sponsor 1905

Step 3 – credit the retailer amount of coupons dispensed, plus their credit rate (4 cents by default) 1907

[00092] Thus for any promotion run by a Promotion Sponsor, assuming there are 100 redemptions of a 50 cent coupon, and assuming the Promotion Sponsor has a debit rate of 10 cents per redemption and the retailer has a credit rate of 4 cents per redemption, the following example is meant to illustrate aspects of the processing:

1. Promotion Sponsor debit = \$64.00, broken down as follows:

Sponsor Liability (100 redemptions * 50 cents per redemption) = \$50.00

ICN clearing fees (100 redemptions * 10 cents per redemption) = \$10.00

Retailer clearing credits (100 redemptions * 4 cents per redemption) = \$4.00

2. ICN clearing fees = \$10.00, broken down as follows:

ICN clearing fees (see Sponsor debit above, left in ICN account after credits & debits settled) = \$10.00

3. Retailer clearing credits = \$54.00, broken down as follows:

Sponsor Liability (see above) = \$50.00

Retailer clearing credits (see above) = \$4.00

[00093] Modifications to the above billing processing example may be made in part or all of the following manner:

1. When a Retailer is running their own promotion and is the sponsor, the retailer may not receive a credit – they may get debited. A retailer may be credited for a promotion.
2. A Promotion Sponsor can be a Retailer, Media Partner, or CPG. The promotion sponsor can be the company funding the promotion and responsible for the amount they may be debited (coupon value and billing rate considered).

[00094] Other variations may be made to the billing processing such as by incorporating one or more of the following features:

1. Promotion Billing data definition language (DDL) structure. This may at the retailer level for storage of billing info and calculations leverage, and includes the full trail of billing activity and be fully auditable.

2. Promotion Billing Stored Procedure(s). The procedure(s) can be responsible for performing the background processing for billing and may be run scheduled and/or manually as needed. The procedure(s) may be responsible for identifying each active promotion, inspecting the TRANSACTIONS & REDEMPTIONS tables for that promotion, and populating the PromoBilling table structure with totals for this promotion billing cycle. The procedure(s) may also inspect the PromoBilling structure to know where it left off last time for billing for a given promotion to avoid faulty scenarios such as double billing.
4. Basic Billing Report. This report may be visible in the Promotion Manager so anyone with the appropriate permissions may view it. The report may tie back to promotion visibility rules as well, and based on what role the user has (sponsor, retailer, executor), may display appropriate data.
5. Invoice Report & transmission. This may be similar to Basic Billing report and may need to be transmitted to each company ICN issues ACH transactions to.
6. Replication of local retailer Promotion Billing structure to central ACH Billing database structure. The ACH system may be provided with a copy of each retailer's Promotion Billing structure, and may need to report updates back to the individual retailer database. This may initially be accommodated by SQL Server merge replication and may require some configuration effort.

[00095] Figure 20 illustrates an embodiment of an ICN billing and ACH financial settlement system 2000. Initially 2022, a manufacturer or media company 2020 may set up promotions stored by the ICN server 2014 on the ICN database 2018. Promotions from a retailer site 2002 may also be stored by the ICN system 2012. Conversely, or additionally, manufacturer's and/or media company promotions stored in the ICN database 2018 may be downloaded to the retailer site 2002. At the retailer site 2002, there may be a POS controller 2004 with ICN POS bridge software 2006 and at least one retailer POS terminal 2008 with its ICN POS bridge software 2010. Redemption data may be stored in the ICN database 2018 and later retrieved via the ICN server 2014 by FTP server 2034. The FTP server may be structured as in Figure 18 and comprise a central billing database and sensitive data storage 2036, the ACH processing system 2038, and ACH/NOC files 2040. Transaction data from the FTP server 2034 may be provided to an originating financial institution, such as bank ABC

2032. This transaction data is used to debit the manufacturer's or media company's bank account 2030 and credit the retailer's bank account 2028. Audit reports 2026 from the ICN server 2024 may be provided to the manufacturer or media company 2020. The ICN server 2024 may be part of the ICN server 2014.

[00096] In view of the foregoing, it can be seen that as alternative to a coupon, Applicant has provided for a coupon card in embodiments. In other embodiments, a coupon card is not employed. Thus, many options and advantages are offered by Applicant's embodiments. For example, although a coupon card is convenient, there may be times where a coupon card is not preferred for conducting consumer transactions with, e.g., a retailer or wholesaler.

[00097] Also, embodiments of Applicant's invention can provide a coupon and/or incentive redeemer with information as to the entire purchases made by a consumer or in a transaction. Embodiments can provide the manufacturer and retailer with information in a complete and real time manner.

[00098] Accordingly, embodiments of the invention can provide for real time coupon and/or incentive validation in which data about entire transactions are provided in real time to an Intelligent Clearing Network that can avoid multiple redemptions of the same coupons and/or incentives and can avoid redeeming a coupon and/or incentive against an unintended product. The current business model also can allow for activation of coupons and/or incentives based on or only on the contents of the consumer's basket, or allowing the consumer to opt into promotions via the internet. This can allow for consumers to participate in in-store media promotions based on or only on the occurrence of the promoted products being present in the consumer's transaction at the POS. This also can allow consumers to opt into internet based promotions by identifying themselves and purchasing the qualified products.

[00099] Not only can embodiments of the invention allow for the redemption of coupons found in Free Standing Inserts, but also can permit the validation and redemption of coupons and/or incentives found via in-store promotions or on the internet. During the checkout process at a point-of-sale terminal, a series of events may occur: sale data is transmitted via a wide area network from a retailer site to an enterprise (e.g., retailer headquarters), the enterprise forwards data via high-speed connection to the Intelligent Clearing Network servers, Intelligent Clearing Network application software determines that promotion parameters are met, and if the promotion parameters are met, the Intelligent Clearing

Network returns information to the enterprise and point-of-sale terminal that the consumer has satisfied the promotion parameters and the coupon and/or incentive offer has been redeemed. It is possible that the entire coupon and/or incentive redemption process may be completed in one second or less.

[000100] In one or more embodiments of the invention, a system for redeeming coupons comprises a network through which a Point-of-Sale (POS) terminal communicates, through a POS controller, with an Intelligent Clearing Network (ICN) server. One or both of the POS terminal and POS controller are installed with POS bridge software. The ICN server is configured to run a real time software application while in communication with the POS terminal, wherein the POS terminal transmits coupon transaction information including universal product codes to the ICN server via the network. Coupons and incentives can be redeemed when the consumer purchases the products promoted by a media company, manufacturer or retailer on the internet or in-store or other promotional materials such as newspapers, magazines, and direct mail. The system may use trigger universal product codes to validate coupons and/or incentives and target universal product codes to properly redeem coupons.

[000101] Clearing GS1 Databar Paper Coupons using the ICN Technology

[000102] GS1 Databar is a barcode standard, which provides for expanded information to be provided in a barcode. The GS1 Databar is scheduled to replace the old UPC-A type barcode on all paper coupons printed and distributed in the U.S. in January 2010. A Retailer may upgrade its POS Software and Scanner Software and even replace physical equipment, such as scanners, to read the GS1 Databar. After January 2010, it is possible that only the new GS1 Databar will be printed on a paper coupon and retailers may be required to update their systems or, otherwise, have their cashiers manually enter the coupon value through the POS Terminal Keyboard.

[000103] The new GS1 Databar contains detailed new data elements that can be read by the ICN Data bridge system, including software or code, when installed on the POS Terminal scanning the paper coupons. The new detailed information need not be captured by the POS system or passed onto the Coupon distributors to facilitate electronic clearing of the paper coupon with the new GS1 Databar. Advantageously, embodiments of the invention, can read these new data elements in Real Time and electronically clear the paper coupon.

[000104] Electronic Clearing of GS1 Databar 8110 Coupons

[000105] There are methodologies for electronically clearing paper GS1 databar paper coupons, specifically 8110 Application Identifier coded coupons, which differ in form and function from the historic 8100, 8101, and 8102 coded coupons.

[000106] The GS1 Databar 8110 Coupon background

[000107] GS1 Databar 8110 coupon expands common existing 8100, 8101, and 8102 coupon fields and introduces additional optional fields. Fields for GS1 databar paper coupons include, which may be required: 1) the Application Identifier, 2) Primary Company Prefix, 3) Offer Code, 4) Save Value, 5) Primary Purchase Requirement, 6) Primary Purchase Requirement Code, and lastly 7) Primary Purchase Family Code. These fields coupled with several additional optional fields make fraud proof redemptions possible. Those optional fields of interest include primarily the Optional Data Field 5, the Serial Number, coupled with Optional Data Fields 3 and 4, Expiration Date and Start Date respectively.

[000108] Fraud proof redemptions of 8110 coupons

[000109] The 8110 Coupon fields coupled with a uniquely assigned serial number yield a unique physical existence of a coupon. Coupon printers may be set up to adhere to ranges of serial numbers, both for uniqueness and also for tracking printed coupon quantities. A physically unique coupon (8110 required fields + option serial number) may then be validated against a central host system to determine if it's been redeemed yet or not. If it has not yet been redeemed, the central host system can indicate that the coupon is unredeemed and log a redemption to ensure the uniquely identified coupon cannot be redeemed again. The cashier may then dispose of the coupon, no other validation or method for counting being required. The optional fields of Expiration Date and Start Date may also be inspected by the host system to ensure redemption falls within the designated active period of the coupon, to eliminate human cashier error and also fraud.

[000110] Different processes, which ICN may deploy to clear paper coupons with the new GS1 Databar, include.

1. The GS1 Databar on the paper coupon does not have a unique serial number as described in the GS1 8110 application code (i.e., a non-serialization embodiment).

2. The GS1 Databar on the paper coupon does have a unique serial number as described in the GS1 8110 application code (i.e., a serialization embodiment).

[000111] In accordance with an aspect of the invention, a system is provided that comprises an Intelligent Clearing Network (ICN) network; a point-of-sale (POS) terminal; a POS controller; an ICN server, wherein the POS terminal transmits first data elements of the GS1 barcode printed on the paper coupon along with other transaction information to the POS controller or directly to the ICN server via the ICN network for real time paper coupon validation and or the recording of the GS1 barcode data elements along with transaction details in the ICN database.

[000112] In accordance with another aspect of the invention, a paper coupon with a GS1 barcode and an 8110 application identifier may be scanned at the POS terminal and the data elements contained within the GS1 barcode may then be transmitted to the ICN Server via the ICN Network. The GS1 barcode data elements may include but are not limited to the Manufacture number, Manufacture offer code, Coupon value, Coupon expiration date, Coupon family code, Coupon serial number and Universal Product Codes of required product purchases. Also, transaction details including but not limited to Current date and time, Store number, Transaction number, Lane number, Cashier number, Universal Product Codes of all items purchased in the transaction, and the Consumer loyalty ID number if present, may be transmitted to the ICN server via the ICN network. All of these data elements can be written to the ICN database.

[000113] In accordance with a further aspect of the invention, a paper coupon coded with a GS1 barcode and 8110 application identifier which is scanned at the POS terminal and does not contain a unique serial number may be validated in real time by the ICN server via the ICN network before the paper coupon can be redeemed. The ICN server may validate the expiration date included in the GS1 barcode data elements transmitted to the ICN server with the current date and send a message via the ICN network to the POS terminal as to whether the paper coupon is valid. If the current date is less than or equal to the coupon expiration date, the message from the ICN server to the POS terminal may instruct the POS terminal to redeem the paper coupon. If the current date is greater than the expiration date of the paper coupon the message from the ICN server to the POS terminal may instruct the POS terminal to not redeem the paper coupon. A paper coupon which is determined to be valid and which is redeemed by the POS terminal data elements from the GS1 barcode and other detailed

transaction information may be recorded in the ICN database. Those data elements may include, but are not limited to Manufacture number from the GS1 barcode, Manufacture offer code from the GS1 barcode, Expiration date from the GS1 barcode, Coupon value from the GS1 barcode, Family code from the GS1 barcode, Coupon type from the GS1 barcode, UPC product codes of required purchases from the GS1 barcode along with transaction detail information including but not limited to Current Date and Time, Store number, Transaction number, Lane, Cashier number, Customer loyalty card number, and all UPC product codes purchased in the transaction.

[000114] In accordance with a further aspect of the invention, a paper coupon with a GS1 barcode and 8110 application identifier which is scanned at the POS terminal and which does not contain a unique serial number may be validated in real time by the ICN server via the ICN network before the paper coupon can be redeemed. The ICN server may validate the family code included in the GS1 barcode data elements transmitted to the ICN server against the family codes assigned to the universal product codes purchased during the transaction and the master family code table in the ICN Database and send a message via the ICN network to the POS terminal as to whether the paper coupon purchase requirements have been met. If the family code contained within the GS1 barcode matches the family code of any of the purchased products in the transaction when compared to the master family code table in the ICN Database the message from the ICN server to the POS terminal may instruct the POS terminal to redeem the paper coupon. If the family code contained within the GS1 barcode does not match the family code of any of the purchased products in the transaction when compared to the master family code table in the ICN Database the message from the ICN server to the POS terminal may instruct the POS terminal to not redeem the paper coupon. For a paper coupon which is valid and redeemed by the POS terminal data elements from the GS1 barcode and other detailed transaction information will be recorded in the ICN database. Those data elements include but are not limited to Manufacture number from the GS1 barcode, Manufacture offer code from the GS1 barcode, Expiration date from the GS1 barcode, Coupon value from the GS1 barcode, Family code from the GS1 barcode, Coupon type from the GS1 barcode, UPC product codes of required purchases from the GS1 barcode along with transaction detail information including but not limited to Current Date and Time, Store number, Transaction number, Lane, Cashier number, Customer loyalty card number, and all UPC product codes purchased in the transaction.

[000115] In accordance with a further aspect of the invention, a paper coupon with a GS1 barcode and 8110 application identifier which is scanned at the POS terminal and which does not contain a unique serial number may be validated in real time by the ICN server via the ICN network before the paper coupon may be redeemed. The ICN server may validate the coupon value included in the GS1 barcode data elements transmitted to the ICN server against the master coupon table on the ICN Database and send a message via the ICN network to the POS terminal as to whether the paper coupon is valid. If the value contained within the GS1 barcode matches the value assigned to the coupon in master coupon table in the ICN Database the message from the ICN server to the POS terminal may instruct the POS terminal to redeem the paper coupon. If the value contained within the GS1 barcode does not match the value assigned to the coupon in master coupon table in the ICN Database the message from the ICN server to the POS terminal may instruct the POS terminal to not redeem the paper coupon. For a paper coupon which is valid and redeemed by the POS terminal data elements from the GS1 barcode and other detailed transaction information may be recorded in the ICN database. Those data elements may include but are not limited to Manufacture number from the GS1 barcode, Manufacture offer code from the GS1 barcode, Expiration date from the GS1 barcode, Coupon value from the GS1 barcode, Family code from the GS1 barcode, Coupon type from the GS1 barcode, UPC product codes of required purchases from the GS1 barcode along with transaction detail information including but not limited to Current Date and Time, Store number, Transaction number, Lane, Cashier number, Customer loyalty card number, and all UPC product codes purchased in the transaction.

[000116] In accordance with a further aspect of the invention, a paper coupon with a GS1 barcode and 8110 application identifier which is scanned at the POS terminal and which does not contain a unique serial number may be validated in real time by the ICN server via the ICN network before the paper coupon can be redeemed. The ICN server may validate the coupon Manufacture Offer Code included in the GS1 barcode data elements transmitted to the ICN server against the master coupon table on the ICN Database and send a message via the ICN network to the POS terminal as to whether the paper coupon is valid. The master coupon table, in a non-limiting embodiment, may list coupon identification information, required purchase information, start and expiration dates, and other pertinent information. If the Manufacture Offer Code contained within the GS1 barcode matches a valid Manufacture Offer Code in the master coupon table in the ICN Database the message from the ICN server

to the POS terminal may instruct the POS terminal to redeem the paper coupon. If the Manufacture Offer Code contained within the GS1 barcode does not match the a valid Manufacture Offer Code in master coupon table in the ICN Database the message from the ICN server to the POS terminal may instruct the POS terminal to not redeem the paper coupon. For a paper coupon which is valid and redeemed by the POS terminal data elements from the GS1 barcode and other detailed transaction information may be recorded in the ICN database. Those data elements may include but are not limited to Manufacture number from the GS1 barcode, Manufacture offer code from the GS1 barcode, Expiration date from the GS1 barcode, Coupon value from the GS1 barcode, Family code from the GS1 barcode, Coupon type from the GS1 barcode, UPC product codes of required purchases from the GS1 barcode along with transaction detail information including but not limited to Current Date and Time, Store number, Transaction number, Lane, Cashier number, Customer loyalty card number, and all UPC product codes purchased in the transaction.

[000117] In accordance with a further aspect of the invention, a paper coupon with a GS1 barcode and 8110 application identifier which is scanned at the POS terminal and which does not contain a unique serial number may be validated in real time by the ICN server via the ICN network before the paper coupon can be redeemed. The ICN server may validate the correct products were purchased by the consumer as defined in the GS1 barcode 8110 application identifier or as defined in the master coupon table on the ICN Database and send a message via the ICN network to the POS terminal as to whether the required purchases have been met by the consumer. If the purchase requirements have been met by the consumer as compared to the GS1 barcode 8110 application identifier or the ICN master coupon table the message from the ICN server to the POS terminal may instruct the POS terminal to redeem the paper coupon. If the purchase requirements have not been met by the consumer as compared to the GS1 barcode 8110 application identifier or the ICN master coupon table the message from the ICN server to the POS terminal may instruct the POS terminal to not redeem the paper coupon. For a paper coupon which is valid and redeemed by the POS terminal data elements from the GS1 barcode and other detailed transaction information may be recorded in the ICN database. Those data elements may include but are not limited to Manufacture number from the GS1 barcode, Manufacture offer code from the GS1 barcode, Expiration date from the GS1 barcode, Coupon value from the GS1 barcode, Family code from the GS1 barcode, Coupon type from the GS1 barcode, UPC product codes of required

purchases from the GS1 barcode along with transaction detail information including but not limited to Current Date and Time, Store number, Transaction number, Lane, Cashier number, Customer loyalty card number, and all UPC product codes purchased in the transaction.

[000118] In accordance with a further aspect of the invention, a paper coupon with a GS1 barcode and 8110 application identifier which is scanned at the POS terminal and which contains a unique serial number may be validated in real time by the ICN server via the ICN network before the paper coupon can be redeemed. The ICN server may validate the unique serial number contained in the GS1 barcode against the ICN Master Coupon Database which may contain a table of all unique serial numbers assigned to and printed on all paper coupons. If the unique serial number contained within the GS1 barcode of the coupon matches a valid serial number in the master coupon table of the ICN Database and the coupon has not been redeemed previously the message from the ICN server to the POS terminal may instruct the POS terminal to redeem the paper coupon. If the unique serial number contained within the GS1 barcode of the coupon does not match a valid serial number in the master coupon table of the ICN Database or the coupon has been redeemed previously, the message from the ICN server to the POS terminal may instruct the POS terminal to not redeem the paper coupon. For a paper coupon which is valid and redeemed by the POS terminal data elements from the GS1 barcode and other detailed transaction information may be recorded in the ICN database. Those data elements may include but are not limited to manufacture number from the GS1 barcode, Manufacture offer code from the GS1 barcode, Expiration date from the GS1 barcode, Coupon value from the GS1 barcode, Family code from the GS1 barcode, Coupon type from the GS1 barcode, UPC product codes of required purchases from the GS1 barcode along with transaction detail information including but not limited to Date, Time, Store number, Transaction number, Lane, Cashier number, Customer loyalty card number, and all UPC product codes purchased in the transaction.

[000119] In accordance with a further aspect of the invention, Consumer Package Goods companies who distribute paper coupons, media companies who distribute paper coupons, paper coupon distributors, and paper coupon printers may transmit via the ICN Web service or a batch file in a predefined format all coupon details coded in the GS1 barcode along with individual coupon distribution counts and circulation information which may be written to the ICN Master coupon table in the ICN Database. These coupon details may be used to validate

coupons when they are scanned in real time at the POS terminal via the ICN POS Data bridge, the ICN network, the ICN server, and the ICN real time service.

[000120] In accordance with a further aspect of the invention, paper coupons which have been redeemed via the ICN network may be cleared electronically and financial settlement may occur via the afore-referenced ICN ACH billing system. When an expiration date of a coupon defined in the ICN master coupon table in the ICN Database is greater than the current system date an automated billing process on the ICN server may be executed. This process may query the ICN Database and identify all paper coupons which match the paper coupon defined in the ICN Master coupon table in which the promotional period has ended and were redeemed during the coupon promotion period. Invoices may be generated which will contain detailed transaction level information of all paper coupon redemptions. The detailed invoices may include but are not limited to the following data elements, Invoice date, Invoice number, Billing address information, quantity of paper coupons redeemed, value of paper coupon redeemed, products purchased with redeemed paper coupons, retailer, date, time, store, lane, and any processing fees. On a predetermined schedule agreed upon by the Manufacture and ICN, for each paper coupon promotion which has concluded and detailed invoices have been created and approved by the Manufacture the ICN ACH billing system may debit the appropriate Manufacture bank account the total face value of all paper coupons included in the invoice along with any processing or handling fees. On a predetermined schedule agreed upon by the Manufacture, the Retailer, and ICN for each paper coupon promotion which has concluded, detailed invoices may be created and approved by the Manufacture. The ICN ACH billing system may credit the appropriate Retailer's bank account the total face value of all paper coupons redeemed at the Retailer's store locations included in the invoice along with any processing or handling fees.

[000121] Embodiments of the invention offer improvements over prior scenarios where, for example, the following actions occur: 1) A cashier begins to scan any paper coupons the consumer presents. 2) For each paper coupon scanned GS1 information is captured including:

- Manufacture or CPG number
- Family Code
- Value or Value Code

- MOC Code (Manufacture Offer Code – This number ties to the CPG budget for the coupon redeemed)
- Serial number (Unique identifier)
- Application identifier (8100, 8101, 8110)
- Target UPCs.
- Expiration Date
- Start Date

[000122] 3) Captured GS1 Coupon information is sent to ICN in real time. 4) At the end of the cashier's shift, the terminal and till containing cash, debit, credit, food stamps, and paper coupons are settled by the bookkeeper. The POS system can keep track of all the financial transactions including paper coupons. If the system says the cashier scanned, e.g., \$10.00 in paper coupons then the bookkeeper validate by counting the value of the paper coupons. Once all totals are in order the terminal, cashier, and till are considered reconciled or settled. 5) At the end of each day ALL paper coupons are bundled together and shipped from the store to the retailer's HQ. 6) At the retailer's HQ the coupons from all stores are counted and bundled together and shipped to the Retailer's Clearing Agent. 7) The clearing agent counts every coupon and bundles then together by CPG and MOC creating a dollar total for each coupon promotion which is billed to the CPG on behalf of the Retailer. 8) The CPG can request a second count which would be done by the CPG's clearing agent. 9) Sooner or later an invoice is sent to the CPG and eventually the Retailer is reimbursed for the value of the coupon plus a handling fee.

[000123] According to an advantageous embodiment of the invention, steps 5 to 8 of the above process may be replaced or augmented by the following steps. 1) ICN would capture in real time the paper coupon information when it is scanned. 2) At the end of the cashier's shift, the terminal and till containing cash, debit, credit, food stamps, and paper coupons are settled by the bookkeeper. The POS system keeps track of all the financial transactions including paper coupons. If the system indicates that the cashier scanned, for example, \$10.00 in paper coupons then the bookkeeper can validate by counting the value of the paper coupons. Once all totals are in order the terminal, cashier, and till are considered reconciled or settled. 3) All paper coupons reconciled for a particular day may be removed from

circulation or destroyed by the bookkeeper or at the Retailer's HQ (TBD). 4) On a daily basis ICN would reconcile the paper coupons with the information captured and process them through the afore-described ACH settlement system, which can be used for settling ICN digital promotions. This would eliminate the need to have the paper coupons physically counted by multiple clearing agents and turn a paper financial transaction taking weeks or months into a electronic transaction which can be settled in days.

[000124] FIG. 22 illustrates embodiments of the invention in which a paper coupon is processed. In an example of this embodiment, the ICN is capturing the GS1 data elements, not validating them against an ICN database. In step 2202, a consumer may obtain a paper coupon coded with GS1 databar. In step 2204, during checkout, the consumer may provide the paper coupon to the cashier who scans them in or the consumer scans in the coupons himself or herself. In step 2206, a determination is made as to whether the GS1 databar includes a unique serial number. In step 2208, once the coupon is validated and redeemed by the POS, the ICN POS data bridge may transmit specified data elements from each paper coupon to the ICN database. In step 2210, the scanned coupon data elements may be stored in the ICN database along with associated transaction detail elements. In step 2212, at the end of the cashier's shift, the store bookkeeper may reconcile the value of the coupons in the cash drawer with the totals accumulated with the POS system. In step 2214, on a regular basis, the reconciled coupons from each store may be bundled together and shipped to the retailer's HQ. In step 2216, the retailer's accounting department may log into the ICN promotion manager and run a coupon audit report which provides the following detailed and summary information by date. In step 2218, the audit report may be sent to the manufacture for their approval. Once approved, the retailer or retailer's agent may be authorized to destroy the paper coupons taking them out of circulation. In step 2220, on a predetermined schedule, such as on a weekly or monthly basis, the ICN ACH settlement system may produce invoices for all coupon promotions which have been approved for billing. In step 2222, the ICN ACH settlement system may debit the manufacture pre-assigned bank account for each retailer. In step 2224, the ICN ACH settlement system may credit the retailer's pre-assigned bank account.

[000125] FIG. 23 illustrates an embodiment of the invention in which a paper coupon is processed. In an example of this embodiment, the ICN is validating the GS1 data elements for a paper coupon without a unique serial number printed on it. In step 2302, a consumer

may obtain a paper coupon coded with GS1 databar. In step 2304, during checkout, the consumer may provide the paper coupon to the cashier who scans them in or the consumer scans in the coupons himself or herself. In step 2306, a determination is made as to whether the GS1 databar includes a unique serial number. In step 2308, a description of examples of data elements to be validated in real time may be provided. In step 2310, a determination is made as to whether the coupon is valid. In step 2320, the scanned coupon data elements may be stored in the ICN database along with associated transaction detail elements. In step 2312, if the coupon is determined not to be valid, the ICN real time application may send a message to the POS terminal via the ICN network and ICN data bridge to reject an invalid coupon. Then, in step 2314, the ICN real time application may write invalid coupon redemption attempt and transaction detail data to the ICN database. In step 2316, the ICN real time application may send a message to POS terminal via the ICN network and ICN data bridge to redeem a valid coupon. In step 2318, once the coupon is validated and redeemed by the POS, the ICN POS data bridge software may transmit specified data elements from each paper coupon to the ICN database. In step 2320, the scanned coupon data elements may be stored in the ICN database along with the associated transaction detail elements. In step 2322, at the end of the cashier's shift, the store bookkeeper may reconcile the value of the coupons in the cash draw with the totals accumulated by the POS system. In step 2324, on a regular basis, the reconciled coupons from each store may be bundled together and shipped to the retailer's headquarters. In step 2326, the retailer's accounting department may log into the ICN promotion manager and run a coupon audit report which provides detailed and summary information by individual store and date. In step 2328, an audit report may be sent to the manufacturer for approval. Once approved, the retailer or retailer's agent may authorize the destruction of the paper coupons, thereby removing them from circulation. In step 2330, on a predetermined schedule, the ICN ACH settlement system may produce invoices for all coupon promotions which have been approved for billing. In step 2332, the ICN ACH settlement system may debit the manufacturer's pre-assigned bank account for each retailer. In step 2334, the ICN ACH settlement system may credit the retailer's pre-assigned bank account.

[000126] FIG. 24 illustrates an embodiment of the invention in which a paper coupon is processed. In an example of this embodiment, the ICN validates the unique serial number of a paper coupon which includes a unique serial number. In step 2402, a consumer may obtain a

paper coupon coded with GS1 databar. In step 2404, during checkout, the consumer may provide the paper coupon to the cashier who scans them in or the consumer scans in the coupons himself or herself. In step 2406, a determination is made as to whether the GS1 databar includes a unique serial number. In step 2408, the unique serial number may be transmitted by the ICN POS data bridge to the ICN real time application (PRS). In step 2410, the ICN real time application (PRS) may query the coupon master table in the ICN database to determine if the coupon associated with this unique serial number is valid and had not been redeemed previously. In step 2412, a determination is made as to whether the coupon is valid. If it is determined that the coupon is not valid, the ICN real time application (PRS) may send a coupon denied message to the ICN data bridge as in step 2430. Then, in step 2432, the ICN POS data bridge may send a coupon denied message to the POS terminal. In step 2434, the POS terminal may not approve the coupon, thereby rejecting the coupon so no redemption occurs. In step 2436, the ICN database may generate a coupon denied activity report that it may send to the manufacturer or media company which distributed the coupon. If the coupon is determined to be valid, the ICN real time application (PRS) may send a coupon approved message to the ICN data bridge, as in step 2414. In step 2416, the ICN POS data bridge may send a coupon approved message to the POS terminal. In step 2418, the POS terminal may redeem the coupon and apply the discount. In step 2420, the ICN POS data bridge may send a redemption confirmation message to the ICN real time application (PRS) with specified data elements. In step 2422, the ICN real time application (PRS) may write the data elements to the ICN database. In step 2424, on a predetermined schedule, such as weekly or monthly, the ICN ACH settlement system may produce invoices for all coupon promotions which have been approved for billing. In step 2426, the ICN ACH settlement system may debit the manufacturer's pre-assigned bank account for each retailer. In step 2428, the ICN ACH settlement system may credit the retailer's pre-assigned bank account.

[000127] FIG. 25 shows an embodiment of a paper coupon, in accordance with an embodiment of the invention. On paper coupon 2506 is shown a label of the coupon as a manufacturer's coupon 2510 and a description of the one or more items 2506 the coupon may be redeemed against. An earlier version of a bar code 2501 may be marked on the coupon alongside a current or newer version of a bar code 2504, such as GS1 databar.

[000128] In an aspect of the invention, the GS1 format may require the actual value of the coupon rather than a value code. For example, a \$1.00 coupon value may be represented by

an actual value of 100 which may be coded directly in the barcode. The GS1 barcode allows for coding of the Target UPC's within the barcode to better validate the coupon. The GS1 barcode allows for serialization of each coupon, meaning every coupon printed may be given a unique number by the CPG company thus making it unique and potentially eliminating some fraud.

[000129] When a paper coupon is scanned using some prior techniques, very little information is captured by the POS scanner, not enough information to allow for the clearing of paper electronically, which meant after the paper coupon was scanned by the cashier it was 'money' and went into the till. At the end of the shift, the cashier would remove the till and give it to the store accountant or bookkeeper who would then settle the till. Settling the till involves counting the value of the paper coupons as well as the cash, debit, and credits and verifying that the totals in the till match the total provided by the POS system. Then the paper coupons would be bundled together and sent on a truck to the retailer's HQ. From there all the coupons from all the stores would be bundled together and sent to the retailer's clearing agent where they would be hand counted and separated by CPG and MOC within each CPG. With the GS1 barcode there is the opportunity to capture enough details of the paper coupon to allow for an electronic clearing of the paper coupon. This would be an advantageous opportunity, after the store bookkeeper settles the paper coupons by cashier the coupon could be removed out of circulation by destroying the coupon and the coupon would be cleared electronically by ICN.

[000130] Although the embodiments of FIGs. 22 to 25 and related descriptions have been described in terms of a paper coupon, other physically durable substrate coupons and/or incentives are encompassed within these embodiments of the invention. For example, coupons may be formed through plastic or composite materials.

[000131] Based on the foregoing it should be apparent that various exemplary embodiments provide a method, apparatus and computer program(s) to validate and redeem coupons.

[000132] Figure 26 is a logic flow diagram that illustrates the operation of a method, and a result of execution of computer program instructions, in accordance with exemplary embodiments. In accordance with these exemplary embodiments the method performs, at Block 2605, a step of scanning, at a POS terminal located at a retail store, coupon information of a coupon. A step of determining data elements which include product code

information of an item to be purchased and the coupon information of the coupon is performed at Block 2610. The method performs, at Block 2615, a step of transmitting the data elements through a network to an ICN server for validation and redemption. The ICN server is at a location that is remote from the retail store. A step of validating, at the ICN server, the coupon information based at least in part on the product code information is performed at Block 2620. In response to validating the data elements at the ICN server, the method performs, at Block 2625, a step of transmitting first coupon related information through the network to the POS terminal. A step of transmitting redeemed coupon related information to the ICN server through the network. The redeemed coupon related information includes identification information from the product purchased, an application identifier, and retailer identification information is performed at Block 2630 in response to successful redemption of the coupon. In response to receiving the redeemed coupon related information, the method performs, at Block 2635, a step of storing, by the ICN server, the redeemed coupon related information in a redeemed coupon database. A step of generating a coupon audit report based on the redeemed coupon database is performed at Block 2640. The method performs, at Block 2645, a step of transmitting the coupon audit report to a manufacturer. In response to receiving approval for at least a portion of the coupon audit report, the method also performs, at Block 2650, a step of debiting a bank account assigned to the manufacturer based on the portion of the coupon audit report that was approved and crediting a bank account assigned to the retailer based on the portion of the coupon audit report that was approved.

[000133] The various blocks shown in Figure 26 may be viewed as method steps, and/or as operations that result from operation of computer program code, and/or as a plurality of coupled logic circuit elements constructed to carry out the associated function(s).

[000134] Figure 27 illustrates a simplified signaling diagram in accordance with an embodiment. At time 2705, a POS terminal 2701 receives coupon information during a on-going transaction, for example, by scanning a coupon, a customer account ID card (which may be associated with various coupons in a database), etc. The POS terminal 2701 then determines data elements which include the coupon information and information of an item to be purchased. At time 2710, the POS terminal 2701 sends the data elements to an ICN server 2702 which is located at a separate/remote location (such as a centralized location

serving multiple retail stores for example). The data elements may also include data elements for additional coupon/items.

[000135] At time 2715, the ICN server 2702 validates the coupon using the information of the item to be purchased (such as product code information). The ICN server 2702 may also validate the coupon based on the expiration date, whether or not the coupon has been previously redeemed, etc. If the coupon is validated, the ICN server 2702 sends first coupon related information to the POS terminal 2701 at time 2720. The first coupon related information may include coupon codes, a coupon value code, etc.

[000136] Using the first coupon related information, the POS terminal 2701 may redeem the coupon and complete the transaction at time 2725. Once the coupon has been successful redeemed the POS terminal 2701 sends redeemed coupon related information to the ICN server 2702 at time 2730. The redeemed coupon related information may identify the product purchased, GS1 application identifiers, and/or the retailer. In response to receiving the redeemed coupon related information, the ICN server 2702 stores the redeemed coupon related information in a redeemed coupon database.

[000137] At some later time 2740 (such as, at the end of the day, after a given number of redemptions, etc. for example), the ICN server 2702 generates a coupon audit report based on the information stored in the redeemed coupon database. The ICN server 2702 then sends this coupon audit report to a manufacturer 2703 at time 2745.

[000138] The manufacturer 2703 may then review the coupon audit report and either approve the full report or selectively approve portions of the report. The manufacturer 2703 then sends approval for at least a portion of the coupon audit report to the ICN server 2702 at time 2750

[000139] At time 2755, the ICN server 2702 debits a bank account assigned to the manufacturer based on the portion of the coupon audit report that was approved and credits a bank account assigned to the retailer based on the portion of the coupon audit report that was approved. If the coupon audit report was based on information from a number of retailers the ICN server 2702 may credit bank accounts associated with each retailer based on a single coupon audit report approval.

[000140] Figure 28 shows a simplified diagram of various devices in accordance with another embodiment. This embodiment demonstrates a modular approach where various actions are

performed by several devices rather than being centralized in a single device. The system 2800 includes three separate ICN servers 2810, 2820, 2830 which communicate with a central billing server 2840. Each ICN servers 2810, 2820, 2830 may handle coupon validation for the associated devices and then relays the redemption information to central billing server 2840. The central billing server 2840 may then generate audit reports and perform crediting/debiting accordingly. As non-limiting embodiments, the central billing server 2840 may be an ICN server or a third party server.

[000141] As shown, ICN server 2820 serves various devices 2822, 2824, 2826 located in a single location 2828 (such as in a retail store), while ICN server 2830 serves devices 2832 in one location while two other devices 2834, 2836 are located at a second different location 2838.

[000142] Additionally, the embodiment in Figure 28 also shows additional devices used as point-of-sale (POS) devices. In addition to traditional POS devices 2812, 2816, 2822, 2824, 2832, 2834, such as a register for example, a PC 2814, a scanner 2826 and/or a self-checkout POS 2836 may be used. As a non-limiting example, the PC 2814 may be used for on-line purchases and to submit coupon information to the ICN server 2810 for validation (for example, by selecting a 'purchase' option on a store-based web service hosted by a store which causes the order to be submitted to the ICN server 2810 by a host computer).

[000143] As shown, the POS devices 2812, 2814, 2816, 2822, 2824, 2826, 2832, 2834, 2836 are separated into two separate zones 2850, 2855. When validating coupons, the ICN servers 2810, 2820, 2830 may consider which zone may apply. For example, some coupons may be valid in a zone representing a limited geographic regions and/or a zone representing limited stores.

[000144] In addition to validating a paper coupon by reading the barcode and sending this data to a centralized database, an exemplary embodiment accommodates the reading an embedded serial number, or validation code to provide uniqueness to each coupon. In a non-limiting embodiment, the ICN server receives, from the POS, coupon information that includes a serial number that uniquely identifies an instance of coupon that is being validated. Since the instance of coupon is uniquely identified, the ICN server can make sure the same coupon isn't used twice and/or can track the specific coupon (for example to see how quickly the coupon is used, who used the coupon, etc.).

[000145] When a manufacturer or retailer includes a serial number in the barcode of the coupon that is issued, this information could be provided in real time with the other coupon data to the ICN database. Since the serial number would be unique for that particular coupon, each number could be added to a database such that any subsequent attempt to redeem/validate that same coupon could be automatically rejected because the system would have already recorded the processing of the original serial number. Every time a coupon is scanned, the information can be validated against the central system to ensure that the particular coupon has not been redeemed before. The coupon data could be entered into a table as it is scanned in order to effectively take the coupon out of circulation. Therefore, the coupon could in fact be destroyed or simply stored in some secure location whereby it would not be necessary to send the actual paper coupon through the normal accounting solution as used in the process of paper counting.

[000146] In a further non-limiting embodiment, validating coupons may include verifying that the serial number is loaded in a database of authorized coupon serial numbers. As coupons are issued (or printed) they can be added to the database in order to ensure only those coupons that are actually made/issued are authorized. Additionally, the database may be updated to remove coupons that are no long valid (such as those that expired, those that redeemed, those that were not mailed, etc. for example).

[000147] All coupons and serial numbers for a specified range of offers may be preloaded into a database. As an example, if a company were to issue 1 million coupons for detergent, the serial numbers for these 1 million coupons would be added to the table/database prior to the point that the coupons were made available to the market. As the consumers come to the store to redeem their offers and the cashier scans each of the coupons, the serial number would be read by the point-of-sale system and that data is provided to the ICN system. The serial number for each coupon would be flagged as being redeemed such that at any moment the current status of every coupon issued in the original 1 million offers is available from the application.

[000148] To address issues with home printed coupons customers include a unique number which is normally some unique identifier by customer household select coupons on an Internet site or allowed to print these coupons on their home printer. The database is updated in real time with the serial number of each coupon as the customer prints the offer. The process of selecting and printing the coupon actually activates it and places that serial number

in the table of the ICN system. If the coupon has not been processed through the normal solution of Internet printing, the coupon would not be validated when it is scanned at the store because the actual serial number would not be active on the file. This provides a true-real-time-validation capability for home printed coupons. In another non-limiting embodiment, the ICN server may receive an indication that a coupon is printed (for example by a home computer). In response to the indication, the ICN server may add the serial number that uniquely identifies the coupon to a database of authorized coupon serial numbers.

[000149] In a further non-limiting embodiment, when validating coupons the ICN server may verify whether each coupon is indicated by a database of unacceptable coupons. This database of unacceptable coupons (or negative file) can indicate coupons which are not to be accepted (for example, due to known fraud issues with the coupon, etc.).

[000150] Any coupons that are known to be bad or fraudulent could be added to a "Negative or Bad coupon table" (for example, a database of coupons that are not acceptable). The coupon data is sent in real-time through network as the coupons are scanned at the store and validated against this database to ensure that the coupon is not on the negative file. If it is, then the system can respond to the store cashier not to accept these particular coupons.

[000151] A master coupon is a single paper coupon controlling any number of attached digital coupons. When the ICN server receives a master coupon for validation, the ICN server can look up any coupons associated with the master coupon and then validate the looked up coupons. After validating the associated coupons, the ICN server can provide the POS device details for the coupons associated with the master coupon.

[000152] A master coupon facilitates digital FSI, mailers with multiple digital coupons, etc without the need for a known indicator such as a loyalty card. The GS1 Databar coupon can represent a unique instance of that coupon for example, where three fields (the Company Prefix, the Offer Code, and the Serial Number) provide a unique identification of the master coupon. Using an ICN server's paper validation capabilities in combination with digital qualification/execution capabilities, one serialized GS1 Databar coupon essentially becomes a master coupon that enables multiple attached digital coupons to be considered/executed.

[000153] A master coupon may be scanned and sent to the ICN server for validation but not as part of the POS transaction. When the master coupon is detected, the validation service responds in a special manner that acknowledges the scan of the master coupon, but does not

pass the coupon into the actual transaction. This would work similar to when the ICN server sends down a rejection, however, it wouldn't stop the transaction and/or display anything.

[000154] For FSI or other media such as mailers with multiple coupons, rather than printing a barcode for each coupon and having consumers cut and present each one in the store, instead a single master coupon (such as a serialized GS1 Databar coupon which represents the multiple digital coupons) could be scanned. The paper validation framework intercepts the scan and executes additional logic, including but not limited to dispensing additional digital coupons. FSI related extreme couponing as well as various forms of fraud could be greatly reduced and/or eliminated. Executed in this manner this also solves problems encountered when companies have attempted loading offers into the POS and using a secondary customer loyalty card.

[000155] For targeted mailers CPG's could use the same serial number for known households and distinctly identify which households redeemed coupons (and may also track where/when the household redeemed the coupons). Additional analysis and continuity promotions may then be preformed that would otherwise be impractical/impossible. This can be especially effective for retailers who have no loyalty program where such data gathering is more difficult. CPGs would have access to this information in real time rather than months after the fact, making CPG driven continuity programs a very agile possibility. Additionally, CPG's would also be able to track liability and redemption rates.

[000156] Smart phones could image/lookup the special serialized coupon to perform functions such as reporting metrics about the promotion. A consumer could look up how many coupons the master coupon contains, what the coupons are, which have or have not been used, when they expire, etc. The master coupon could even be used to pull up a digital copy of the whole FSI content for consumers to review (in case they clipped the barcode and discarded the rest of the FSI paper creative).

[000157] FSI paper coupons suffer from a major problem that crops up when a barcode is incorrectly constructed. Once printed and distributed, there is no way to correct a barcode on a paper coupon. However, executing digitally and riding off a serialized GS1 Databar coupon any/all of digital coupons contained within could be modified/corrected at nearly any time.

[000158] Since every item in the basket may be checked during the checkout process, the ICN server can process both digital and paper coupon discounts in the same transaction. The

ICN server also has the ability to identify the specific product where the redemption occurs. That's good when redemptions occur for the promoted product and not so good when it occurs on non-promoted products.

[000159] This information may then be collected with redemption information from other transactions, such as in a database for example. The redemption information database may then be analyzed to identify how often the coupon is redeemed properly, how often the coupon is redeemed for non-promoted products, which non-promoted products are used, etc.

[000160] In another non-limiting embodiment, the ICN server receives redemption information for transactions indicating which coupons have been redeemed in the transaction and the item purchased with the coupon. The ICN server can store the redemption information in a redemption database and then, using redemption information from multiple transaction, generating a redemption data report. The redemption data report can include, for each transaction of at least one transaction, information identifying an item purchased redeeming at least one coupon during the transaction. This information may be presented as a table, for example indicating how many coupons were redeemed using a given item, or as a list indicating the most commonly used items (such as the top 20, top 10, etc.). The report may also provide statistical data (such as percentage of redemptions using the given item).

[000161] The ICN server may also enforce strict coupon/voucher criteria. For example, the WIC ('Women Infants and Children') program is a federally subsidized nutrition program. The WIC program issues paper vouchers which allow the holder to receive specific food items in the grocery store for free. The paper vouchers may have specific items written on them which are eligible to be redeemed, for example, 32 Oz TROPICANA OJ no Pulp, or 16.5 Oz RICE KRISPIES cereal. In order to redeem the voucher the items are presented to the cashier for inspection. Traditionally, the cashier checks the item against the list of available products written on the voucher and the cashier must separate them from any other products being purchased and ring up a separate transaction.

[000162] Using the ICN technology, the system can validate these products in real time and deliver discounts for 'Free' items. This would convert the program from a manual process to an electronic one. This automation using ICN servers saves the retailer (and the government) time and money by converting WIC transactions from a manual execution to an electronic execution. This can also provide better reporting and validation to the government on what is

being purchased. Additionally, the electronic validation allows the retailer to avoid separate transactions which speeds up the checkout process.

[000163] In another non-limiting embodiment, the ICN server analyzes the redemption information in order to detect an alert event. When an alert event is detected, the ICN server generates a notification that the alert event occurred. Notification may be provided by sending an email to the store, adding a note to log, sending a text message to a store manager, and/or any other communication.

[000164] An alert event can be any set of criteria being met that is deemed important enough to warrant a quick notification. Such events may include when a coupon is redeemed even though it was indicated as invalid; when the account number for customer in a given customer class is used (such as indicating a VIP client, for example); when a coupon is redeemed a price different from that authorized (such as using an override feature); when a given clerk redeems a threshold number of coupons at prices that not authorized; when a coupon is redeemed a price sufficiently different from an authorized price (such as by overriding the coupon price by over \$1.00); when an average amount of time between transactions by a specific clerk exceeds a threshold time; and/or when a threshold number of manual inputs of coupon information indicates a potential point-of-sale device failure.

[000165] Since the ICN server has the ability to monitor cashier activity in real time during a transaction, it can provide immediate alerts to the appropriate store personnel (such as, in the form of an email or text message for example). The ICN server can identify when a cashier ignores a fraud alert message and still accepts the paper coupon. The ICN server can also track other forms of potentially fraudulent behavior. For example, the ICN server can detect instances where a transaction is reduced to \$0.00 by the scanning of many paper coupons (which could indicate a cashier committing fraud on behalf of a customer); extreme couponing events; etc.

[000166] Cashier monitoring also enables the retailer to identify that a particular customer is checking out at a specific lane (such as through the use of a loyalty card, customer/family specific serial numbers, etc.). This alert could notify the manager of a 'Platinum' type customer is in the process of checking out. The store manager could stop by to greet or help the customer (such as by bringing their groceries to the car for example). This could also be

used to identify a customer for a negative reason, such as those that are suspected of fraud of some type and/or banned the store.

[000167] The ICN server may also identify trends in a given cashier's behavior. For example, the ICN server can detect when a high volume of 'keyed' or manually entered coupons occurs which could indicate a hardware or software problem with a POS terminal or a scanner. This may be identified by comparing the cashier's (or terminal's) past history (for example for the last month) to a short term history (for example for the current day). The ICN server may also track the time between transactions in order to determine the amount of idle time for a given cashier.

[000168] Multiple ICN systems could be connected to a central validation center. In this configuration, multiple retail entities may all be connected to a single source. Thus, the individual retailer/local systems could be independent products. In this environment, the point-of-sale system, electronic load to card, or other validation product could be connected from multiple retailers to a central ICN system. This would allow a myriad of retailers and systems to all be connected and operate as one.

[000169] This works similar in the ICN system above and allows a multitude of retailers with different systems to be connected to a single point allowing the transfer of monies and/or information that allows a national and centralized control for the industry. The system allows the different solutions used by each Retailer product to operate on large-scale and to connect to a number of different operating platforms and solutions.

[000170] In a further non-limiting embodiment, the ICN may validate coupons using zone information. The zone information may be based on the location of the POS terminal, the retailer, the type of transaction (such as in-store, on-line, etc.) and/or other criteria.

[000171] The coupon validation service also enables the use of coupon validation zones. Validation zones is a mechanism for providing a configuration of a coupon validation rule sets at varying degrees of granularity. Rather than enforcing a monolithic set of coupon validation rules, each zone could enforce an independent set of rules. Each zone could leverage its own unique combination of validation rules, for example, the ability of a retailer's stores to accept coupons encoded with the special 992 family code.

[000172] A coupon validation zones may be composed in a number of way. A zone could partition a retailer's store network across a number of dimensions, ranging from macro scale

(such as by retailer banners, arbitrary geographic store groups) down to the micro scale (such as by individual store and even individual terminals within stores). Separately, the coupons themselves could be assigned to validation zones based on either the company prefix (or prefixes in the case of the GS1 DataBar) encoded in the coupon, or a collection of related company prefixes rolling up into a brand.

[000173] An exemplary embodiment provides a method for validating and redeeming coupons. The method includes receiving (such as by a receiver for example), at a server, data elements from a point-of-sale device for validation and redemption during a transaction. The data elements include product code information of an item to be purchased and coupon information. The coupon information is received at the POS device located at a first location and the server is at a second location that is remote from the first location. The method includes validating (such as by a processor for example) at least one coupon based at least in part on the product code information and the coupon information. The method also includes, in response to validating the at least one coupon, sending (such as via a transmitter for example) a coupon message that indicates whether the at least one coupon has been validated for redemption in the transaction.

[000174] In another exemplary embodiment of the method above, the coupon information includes a serial number that uniquely identifies an instance of coupon and the at least one coupon includes the instance of the coupon. Validating the at least one coupon may include verifying that the serial number is loaded in a database of authorized coupon serial numbers.

[000175] In a further exemplary embodiment of the method above, validating the at least one coupon includes verifying, for each of the at least one coupon, whether the coupon is not loaded in a database of unacceptable coupons.

[000176] In another exemplary embodiment of the method above, the method also includes receiving an indication that an instance of a coupon is printed. The digital coupon includes a serial number that uniquely identifies the instance of the coupon. In response to receiving the indication that the instance of the coupon is printed, the method includes adding the serial number to a database of authorized coupon serial numbers.

[000177] In a further exemplary embodiment of the method above, the coupon information includes a master coupon information. The method also includes, in response to receiving the master coupon information, identifying at least two coupons. The at least two coupons are

associated with the master coupon and the at least one coupon includes the at least two coupons.

[000178] In another exemplary embodiment of the method above, the method also includes adding first coupon details for a first coupon to a coupon database and receiving second coupon details for the first coupon. In response to receiving the second coupon details for the first coupon, the method includes updating the coupon database with the second coupon details. Receiving the data elements occurs after updating the coupon database. The at least one coupon includes the first coupon and the coupon message also includes at least a portion of the second coupon details.

[000179] In a further exemplary embodiment of the method above, the method also includes receiving redemption information for the transaction indicating that the at least one coupon has been redeemed. In response to receiving the redemption information, the method includes storing the redemption information in a redemption database. The method also includes generating a redemption data report based on the redemption information database regarding at least one transaction. The redemption data report includes, for each transaction of at least one transaction, information identifying an item purchased redeeming at least one coupon during the transaction.

[000180] In another exemplary embodiment of the method above, the coupon is a Women Infants and Children program voucher.

[000181] In a further exemplary embodiment of the method above, the point-of-sale device includes a computer performing an on-line purchase.

[000182] In another exemplary embodiment of the method above, validating the at least one coupon is further based on a zone assigned to the point-of-sale device.

[000183] In a further exemplary embodiment of the method above, the method includes receiving redemption information for the transaction indicating that the at least one coupon has been redeemed and analyzing the redemption information in order to detect an alert event. In response to detecting an alert event, the method also includes generating a notification that the alert event occurred. Generating the notification may include sending a message to the first location. An alert event may be: when redemption of a coupon which was indicated as invalid is performed; when the data elements include an account number for customer in a given customer class; when redemption of a coupon at a price that is not

authorized is performed; when a threshold number of redemptions by a specific clerk of coupons at prices that are not authorized is reached; when redemption of a coupon at a price sufficiently different from a price that is authorized is performed; when an average amount of time between transactions by a specific clerk exceeds a threshold time; and/or when a threshold number of manual inputs of coupon information indicates a potential point-of-sale device failure.

[000184] Another exemplary embodiment provides an apparatus for validating and redeeming coupons. The apparatus includes a processor; and a memory storing computer program code. The memory and the computer program code are configured to, with the processor, cause the apparatus to perform actions. The actions include receiving, at a server, data elements from a point-of-sale device for validation and redemption during a transaction. The data elements include product code information of an item to be purchased and coupon information. The coupon information is received at the POS device located at a first location and the server is at a second location that is remote from the first location. The actions also include validating at least one coupon based at least in part on the product code information and the coupon information and, in response to validating the at least one coupon, sending a coupon message that indicates whether the at least one coupon has been validated for redemption in the transaction.

[000185] In a further exemplary embodiment of the apparatus above, the coupon information includes a serial number that uniquely identifies an instance of coupon. The at least one coupon includes the instance of the coupon. When validating the at least one coupon, the at least one memory and the computer program code are further configured to cause the apparatus to verify that the serial number is loaded in a database of authorized coupon serial numbers.

[000186] In another exemplary embodiment of the apparatus above, when validating the at least one coupon, the at least one memory and the computer program code are further configured to cause the apparatus to verify, for each of the at least one coupon, whether the coupon is not loaded in a database of unacceptable coupons.

[000187] In a further exemplary embodiment of the apparatus above, the actions also include to receive an indication that an instance of a coupon is printed. The digital coupon includes a serial number that uniquely identifies the instance of the coupon. In response to receiving the

indication that the instance of the coupon is printed, the actions include to add the serial number to a database of authorized coupon serial numbers.

[000188] In another exemplary embodiment of the apparatus above, the coupon information includes a master coupon information. The at least one memory and the computer program code are further configured to cause the apparatus, in response to receiving the master coupon information, to identify at least two coupons. The at least two coupons are associated with the master coupon and the at least one coupon includes the at least two coupons.

[000189] In a further exemplary embodiment of the apparatus above, the actions include to add first coupon details for a first coupon to a coupon database, to receive second coupon details for the first coupon, and, in response to receiving the second coupon details for the first coupon, to update the coupon database with the second coupon details. Receiving the data elements occurs after updating the coupon database. The at least one coupon includes the first coupon and the coupon message further includes at least a portion of the second coupon details.

[000190] In another exemplary embodiment of the apparatus above, the at least one memory and the computer program code are further configured to cause the apparatus: to receive redemption information for the transaction indicating that the at least one coupon has been redeemed; in response to receiving the redemption information, to store the redemption information in a redemption database; and to generate a redemption data report based on the redemption information database regarding at least one transaction. The redemption data report includes, for each transaction of at least one transaction, information identifying an item purchased redeeming at least one coupon during the transaction.

[000191] In a further exemplary embodiment of the apparatus above, the coupon is a Women Infants and Children program voucher.

[000192] In another exemplary embodiment of the apparatus above the point-of-sale device includes a computer performing an on-line purchase.

[000193] In a further exemplary embodiment of the apparatus above, validating the at least one coupon is further based on a zone assigned to the point-of-sale device.

[000194] In another exemplary embodiment of the apparatus above, the at least one memory and the computer program code are further configured to cause the apparatus: to receive redemption information for the transaction indicating that the at least one coupon has been

redeemed; to analyze the redemption information in order to detect an alert event; and, in response to detecting an alert event, to generate a notification that the alert event occurred. When generating the notification, the at least one memory and the computer program code may be further configured to cause the apparatus to send a message to the first location. An alert event may be: when redemption of a coupon which was indicated as invalid is performed; when the data elements include an account number for customer in a given customer class; when redemption of a coupon at a price that is not authorized is performed; when a threshold number of redemptions by a specific clerk of coupons at prices that are not authorized is reach; when redemption of a coupon at a price sufficiently different from a price that is authorized is performed; when an average amount of time between transactions by a specific clerk exceeds a threshold time; and/or when a threshold number of manual inputs of coupon information indicates a potential point-of-sale device failure.

[000195] In a further exemplary embodiment of the apparatus above, the apparatus is embodied in an integrated circuit.

[000196] In another exemplary embodiment of the apparatus above, the apparatus is embodied in a server (such as an ICN server for example).

[000197] A further exemplary embodiment provides a computer readable medium for validating and redeeming coupons. The computer readable medium is tangibly encoded with a computer program executable by a processor to perform actions. The actions include receiving, at a server, data elements from a point-of-sale device for validation and redemption during a transaction, the data elements including product code information of an item to be purchased and coupon information. The coupon information is received at the POS device located at a first location and the server is at a second location that is remote from the first location. The actions also include validating at least one coupon based at least in part on the product code information and the coupon information; and, in response to validating the at least one coupon, sending a coupon message that indicates whether the at least one coupon has been validated for redemption in the transaction.

[000198] In another exemplary embodiment of the computer readable media above, the coupon information includes a serial number that uniquely identifies an instance of coupon. The at least one coupon includes the instance of the coupon. Validating the at least one

coupon may include verifying that the serial number is loaded in a database of authorized coupon serial numbers.

[000199] In a further exemplary embodiment of the computer readable media above, validating the at least one coupon includes verifying, for each of the at least one coupon, whether the coupon is not loaded in a database of unacceptable coupons.

[000200] In another exemplary embodiment of the computer readable media above, the actions also include: receiving an indication that an instance of a coupon is printed. The digital coupon includes a serial number that uniquely identifies the instance of the coupon. In response to receiving the indication that the instance of the coupon is printed, the actions also include adding the serial number to a database of authorized coupon serial numbers.

[000201] In a further exemplary embodiment of the computer readable media above, the coupon information includes a master coupon information. The actions also include, in response to receiving the master coupon information, identifying at least two coupons. The at least two coupons are associated with the master coupon, and the at least one coupon includes the at least two coupons.

[000202] In another exemplary embodiment of the computer readable media above, the actions also include adding first coupon details for a first coupon to a coupon database; receiving second coupon details for the first coupon; and, in response to receiving the second coupon details for the first coupon, updating the coupon database with the second coupon details. Receiving the data elements occurs after updating the coupon database. The at least one coupon includes the first coupon and the coupon message also includes at least a portion of the second coupon details.

[000203] In a further exemplary embodiment of the computer readable media above, the actions also include: receiving redemption information for the transaction indicating that the at least one coupon has been redeemed; in response to receiving the redemption information, storing the redemption information in a redemption database; and generating a redemption data report based on the redemption information database regarding at least one transaction. The redemption data report includes, for each transaction of at least one transaction, information identifying an item purchased redeeming at least one coupon during the transaction.

[000204] In another exemplary embodiment of the computer readable media above, the coupon is a Women Infants and Children program voucher.

[000205] In a further exemplary embodiment of the computer readable media above, the point-of-sale device includes a computer performing an on-line purchase.

[000206] In another exemplary embodiment of the computer readable media above, validating the at least one coupon is further based on a zone assigned to the point-of-sale device.

[000207] In a further exemplary embodiment of the computer readable media above, the actions also include: receiving redemption information for the transaction indicating that the at least one coupon has been redeemed; analyzing the redemption information in order to detect an alert event; and, in response to detecting an alert event, generating a notification that the alert event occurred. Generating the notification may include sending a message to the first location. An alert event may include: when redemption of a coupon which was indicated as invalid is performed; when the data elements include an account number for customer in a given customer class; when redemption of a coupon at a price that is not authorized is performed; when a threshold number of redemptions by a specific clerk of coupons at prices that are not authorized is reach; when redemption of a coupon at a price sufficiently different from a price that is authorized is performed; when an average amount of time between transactions by a specific clerk exceeds a threshold time; and/or when a threshold number of manual inputs of coupon information indicates a potential point-of-sale device failure.

[000208] In another exemplary embodiment of the computer readable media above, the computer readable medium is a non-transitory computer readable medium (e.g., CD-ROM, RAM, flash memory, etc.).

[000209] In a further exemplary embodiment of the computer readable media above, the computer readable medium is a storage medium.

[000210] Another exemplary embodiment provides an apparatus for validating and redeeming coupons. The apparatus includes means for receiving (such as a receiver for example), at the apparatus, data elements from a point-of-sale device for validation and redemption during a transaction, the data elements including product code information of an item to be purchased and coupon information. The coupon information is received at the POS device located at a

first location and the apparatus is at a second location that is remote from the first location. The apparatus also includes means for validating (such as a processor for example), at least one coupon based at least in part on the product code information and the coupon information; and means for sending (such as a transmitter for example), a coupon message that indicates whether the at least one coupon has been validated for redemption in the transaction in response to validating the at least one coupon.

[000211] In a further exemplary embodiment of the apparatus above, the coupon information includes a serial number that uniquely identifies an instance of coupon. The at least one coupon includes the instance of the coupon. Validating the at least one coupon may include verifying that the serial number is loaded in a database of authorized coupon serial numbers.

[000212] In another exemplary embodiment of the apparatus above, the validating means includes means for verifying, for each of the at least one coupon, whether the coupon is not loaded in a database of unacceptable coupons.

[000213] In a further exemplary embodiment of the apparatus above, the apparatus also includes means for receiving an indication that an instance of a coupon is printed. The digital coupon includes a serial number that uniquely identifies the instance of the coupon. The apparatus also includes means for adding the serial number to a database of authorized coupon serial numbers in response to receiving the indication that the instance of the coupon is printed.

[000214] In another exemplary embodiment of the apparatus above, the coupon information includes a master coupon information. The apparatus also includes means for identifying at least two coupons in response to receiving the master coupon information. The at least two coupons are associated with the master coupon and the at least one coupon includes the at least two coupons.

[000215] In a further exemplary embodiment of the apparatus above, the apparatus also includes means for adding first coupon details for a first coupon to a coupon database; means for receiving second coupon details for the first coupon; and means for updating the coupon database with the second coupon details in response to receiving the second coupon details for the first coupon. Receiving the data elements occurs after updating the coupon database. The at least one coupon includes the first coupon and the coupon message further includes at least a portion of the second coupon details.

[000216] In another exemplary embodiment of the apparatus above, the apparatus includes means for receiving redemption information for the transaction indicating that the at least one coupon has been redeemed; means for storing the redemption information in a redemption database in response to receiving the redemption information; and means for generating a redemption data report based on the redemption information database regarding at least one transaction. The redemption data report includes, for each transaction of at least one transaction, information identifying an item purchased redeeming at least one coupon during the transaction.

[000217] In a further exemplary embodiment of the apparatus above, the coupon is a Women Infants and Children program voucher.

[000218] In another exemplary embodiment of the apparatus above, the point-of-sale device includes a computer performing an on-line purchase.

[000219] In a further exemplary embodiment of the apparatus above, validating the at least one coupon is further based on a zone assigned to the point-of-sale device.

[000220] In another exemplary embodiment of the apparatus above, the apparatus includes means for receiving redemption information for the transaction indicating that the at least one coupon has been redeemed; means for analyzing the redemption information in order to detect an alert event; and means for generating a notification that the alert event occurred in response to detecting an alert event. The notification generating means may include means for sending a message to the first location. An alert event may include: when redemption of a coupon which was indicated as invalid is performed; when the data elements include an account number for customer in a given customer class; when redemption of a coupon at a price that is not authorized is performed; when a threshold number of redemptions by a specific clerk of coupons at prices that are not authorized is reach; when redemption of a coupon at a price sufficiently different from a price that is authorized is performed; when an average amount of time between transactions by a specific clerk exceeds a threshold time; and/or when a threshold number of manual inputs of coupon information indicates a potential point-of-sale device failure.

[000221] It is believed that embodiments of the invention and the attendant advantages will be understood by the forgoing description. It is also believed that it will be apparent that various changes may be made in the form, construction and arrangement of the components

thereof without departing from the scope and spirit of the invention or without sacrificing all of its material advantages. The form herein before described being merely an explanatory embodiment thereof. It is the intention of the following claims to encompass and include such changes. Moreover, while GS1 barcode 8110 application identifiers are referenced herein, the embodiments described herein also can apply to other barcode identifiers.

WHAT IS CLAIMED IS:

1. A method comprising:

receiving, at a server, data elements from a point-of-sale device for validation and redemption during a transaction, the data elements including product code information of an item to be purchased and coupon information, where the coupon information is received at the point-of-sale device located at a first location, where the server is at a second location that is remote from the first location;

validating at least one coupon based at least in part on the product code information and the coupon information; and

in response to validating the at least one coupon, sending a coupon message that indicates whether the at least one coupon has been validated for redemption in the transaction.

2. The method of claim 1, where the coupon information comprises a serial number that uniquely identifies an instance of coupon, where the at least one coupon comprises the instance of the coupon.

3. The method of claim 2, where validating the at least one coupon comprises verifying that the serial number is loaded in a database of authorized coupon serial numbers.

4. The method of claim 1, where validating the at least one coupon comprises verifying, for each of the at least one coupon, whether the coupon is not loaded in a database of unacceptable coupons.

5. The method of claim 1, further comprising:

receiving an indication that an instance of a coupon is printed, where the digital coupon comprises a serial number that uniquely identifies the instance of the coupon; and

in response to receiving the indication that the instance of the coupon is printed, adding the serial number to a database of authorized coupon serial numbers.

6. The method of claim 1, where the coupon information comprises a master coupon information,

where the method further comprises, in response to receiving the master coupon information, identifying at least two coupons, where the at least two coupons are associated with the master coupon, and

where the at least one coupon comprises the at least two coupons.

7. The method of claim 1, further comprising:

adding first coupon details for a first coupon to a coupon database;

receiving second coupon details for the first coupon; and

in response to receiving the second coupon details for the first coupon, updating the coupon database with the second coupon details,

where receiving the data elements occurs after updating the coupon database,

where the at least one coupon comprises the first coupon and

where the coupon message further comprises at least a portion of the second coupon details.

8. The method of claim 1, further comprising:

receiving redemption information for the transaction indicating that the at least one coupon has been redeemed;

in response to receiving the redemption information, storing the redemption information in a redemption database; and

generating a redemption data report based on the redemption information database regarding at least one transaction, where the redemption data report comprises, for each transaction of at least one transaction, information identifying an item purchased redeeming at least one coupon during the transaction.

9. The method of claim 1, where the coupon is a Women Infants and Children program voucher.

10. The method of claim 1, where the point-of-sale device comprises a computer performing an on-line purchase.

11. The method of claim 1, where validating the at least one coupon is further based on a zone assigned to the point-of-sale device.

12. The method of claim 1, further comprising:

receiving redemption information for the transaction indicating that the at least one coupon has been redeemed;

analyzing the redemption information in order to detect an alert event; and

in response to detecting an alert event, generating a notification that the alert event occurred.

13. The method of claim 12, where generating the notification comprises sending a message to the first location.

14. The method of claim 12, where an alert event is one of:

when redemption of a coupon which was indicated as invalid is performed;

when the data elements include an account number for customer in a given customer class;

when redemption of a coupon at a price that is not authorized is performed;

when a threshold number of redemptions by a specific clerk of coupons at prices that are not authorized is reached;

when redemption of a coupon at a price sufficiently different from a price that is authorized is performed;

when an average amount of time between transactions by a specific clerk exceeds a threshold time; and

when a threshold number of manual inputs of coupon information indicates a potential point-of-sale device failure.

15. An apparatus, comprising a processor; and a memory including computer program code, the memory and the computer program code configured to, with the processor, cause the apparatus to perform at least the following:

receiving, at a server, data elements from a point-of-sale device for validation and redemption during a transaction, the data elements including product code information of an item to be purchased and coupon information, where the coupon information is received at the point-of-sale device located at a first location, where the server is at a second location that is remote from the first location;

validating at least one coupon based at least in part on the product code information and the coupon information; and

in response to validating the at least one coupon, sending a coupon message that indicates whether the at least one coupon has been validated for redemption in the transaction.

16. The apparatus of claim 15, where the at least one memory and the computer program code are further configured to cause the apparatus:

to receive an indication that an instance of a coupon is printed, where the digital coupon comprises a serial number that uniquely identifies the instance of the coupon; and

in response to receiving the indication that the instance of the coupon is printed, to add the serial number to a database of authorized coupon serial numbers.

17. The apparatus of claim 15, where the at least one memory and the computer program code are further configured to cause the apparatus:

to receive redemption information for the transaction indicating that the at least one coupon has been redeemed;

to analyze the redemption information in order to detect an alert event; and

in response to detecting an alert event, to generate a notification that the alert event occurred.

18. A computer readable medium tangibly encoded with a computer program executable by a processor to perform actions comprising:

receiving, at a server, data elements from a point-of-sale device for validation and redemption during a transaction, the data elements including product code information of an item to be purchased and coupon information, where the coupon information is received at the point-of-sale device located at a first location, where the server is at a second location that is remote from the first location;

validating at least one coupon based at least in part on the product code information and the coupon information; and

in response to validating the at least one coupon, sending a coupon message that indicates whether the at least one coupon has been validated for redemption in the transaction.

19. The computer readable medium of claim 18, where the actions further comprise:

receiving an indication that an instance of a coupon is printed, where the digital coupon comprises a serial number that uniquely identifies the instance of the coupon; and

in response to receiving the indication that the instance of the coupon is printed, adding the serial number to a database of authorized coupon serial numbers.

20. The computer readable medium of claim 18, where the actions further comprise:

receiving redemption information for the transaction indicating that the at least one coupon has been redeemed;

analyzing the redemption information in order to detect an alert event; and

in response to detecting an alert event, generating a notification that the alert event occurred.

ABSTRACT

A system for validating, redeeming, and financially settling coupons is described. The system includes a real time network through which a Point-of-Sale (POS) device communicates with an Intelligent Clearing Network (ICN) server. The ICN server is configured to run a real time application while in communication with the POS device, wherein the POS device transmits coupon data elements read at the POS device and other consumer transaction information including universal product codes purchased, and transaction details to the ICN server via the network. The ICN server validates the coupon data elements and provides the POS device information in order to redeem coupons. Apparatus and computer readable media are also described.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	068A.0005.U1(US)
		Application Number	
Title of Invention	Intelligent Clearing Network		
The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76. This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.			

Secrecy Order 37 CFR 5.2

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)
--

Inventor Information:

Inventor 1					Remove
Legal Name					
Prefix	Given Name	Middle Name	Family Name	Suffix	
	Richard	B.	Thibedeau		
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service					
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Address 2					
City	Plainville	State/Province	CT		
Postal Code	06062	Country	US		
Inventor 2					Remove
Legal Name					
Prefix	Given Name	Middle Name	Family Name	Suffix	
	Brian		Schulte		
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City	West Haven	State/Province	CT		
Postal Code	06516	Country	US		
Inventor 3					Remove
Legal Name					
Prefix	Given Name	Middle Name	Family Name	Suffix	
	Michael		Skelton		
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service					

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	068A.0005.U1(US)	
		Application Number		
Title of Invention	Intelligent Clearing Network			

City	Milford	State/Province	CT	Country of Residence	US
------	---------	----------------	----	----------------------	----

Mailing Address of Inventor:

Address 1	150 Clark Hill Road				
Address 2					
City	Milford	State/Province	CT		
Postal Code	06460	Country i	US		

Inventor 4

Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Gary		Oakley	

Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service

City	New Canaan	State/Province	CT	Country of Residence	US
------	------------	----------------	----	----------------------	----

Mailing Address of Inventor:

Address 1	31 Lakeview Avenue				
Address 2					
City	New Canaan	State/Province	CT		
Postal Code	06840	Country i	US		

Inventor 5

Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Jon		Robertson	

Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service

City	East Dennis	State/Province	MA	Country of Residence	US
------	-------------	----------------	----	----------------------	----

Mailing Address of Inventor:

Address 1	P.O. Box 1506				
Address 2					
City	East Dennis	State/Province	MA		
Postal Code	02641	Country i	US		

All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the Add button.

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Correspondence Information:Enter either Customer Number or complete the Correspondence Information section below.
For further information see 37 CFR 1.33(a).☐ An Address is being provided for the correspondence information of this application.

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	068A.0005.U1(US)	
		Application Number		
Title of Invention	Intelligent Clearing Network			
Customer Number	29683			
Email Address	patent@hspatent.com		Add Email	Remove Email

Application Information:

Title of the Invention	Intelligent Clearing Network			
Attorney Docket Number	068A.0005.U1(US)	Small Entity Status Claimed		☒
Application Type	Nonprovisional			
Subject Matter	Utility			
Suggested Class (if any)		Sub Class (if any)		
Suggested Technology Center (if any)				
Total Number of Drawing Sheets (if any)	34	Suggested Figure for Publication (if any)		

Publication Information:

☐	Request Early Publication (Fee required at time of Request 37 CFR 1.219)
☐	Request Not to Publish. I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application has not and will not be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32). Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.			
Please Select One:	☒ Customer Number	☐ US Patent Practitioner	☐ Limited Recognition (37 CFR 11.9)
Customer Number	29683		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(c) or indicate National Stage entry from a PCT application. Providing this information in the application data sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.			
Prior Application Status	Pending	Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
	Continuation in part of	13/773704	2013-02-22
Prior Application Status	Pending	Remove	

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	068A.0005.U1(US)
		Application Number	
Title of Invention	Intelligent Clearing Network		

Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
13/773704	Continuation of	12/587193	2009-10-02
Prior Application Status	Pending	Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
12/587193	Continuation in part of	12/283206	2008-09-09
Prior Application Status	Pending	Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
12/283206	Continuation in part of	11/439725	2006-05-23
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the Add button.			

Foreign Priority Information:

This section allows for the applicant to claim benefit of foreign priority and to identify any prior foreign application for which priority is not claimed. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55(a).			
			Remove
Application Number	Country ¹	Filing Date (YYYY-MM-DD)	Priority Claimed
			☒ Yes ☐ No
Additional Foreign Priority Data may be generated within this form by selecting the Add button.			

Authorization to Permit Access:

☒ Authorization to Permit Access to the Instant Application by the Participating Offices
If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the instant patent application is filed access to the instant patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the instant patent application is filed to have access to the instant patent application. In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the instant patent application with respect to: 1) the instant patent application-as-filed; 2) any foreign application to which the instant patent application claims priority under 35 U.S.C. 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the instant patent application; and 3) any U.S. application-as-filed from which benefit is sought in the instant patent application. In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing this Authorization.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	068A.0005.U1(US)
		Application Number	
Title of Invention	Intelligent Clearing Network		

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Applicant 1

If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.

- ☒ Assignee
 ☐ Legal Representative under 35 U.S.C. 117
☐ Person to whom the inventor is obligated to assign.
 ☐ Person who shows sufficient proprietary interest

If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:

Name of the Deceased or Legally Incapacitated Inventor :

If the Assignee is an Organization check here. ☒

Organization Name Intelligent Clearing Network, Inc.

Mailing Address Information:

Address 1 31 Lakeview Avenue

Address 2

City New Canaan

State/Province

CT

Country US

Postal Code

06840

Phone Number

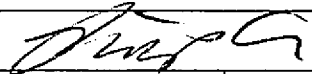
Fax Number

Email Address

Additional Applicant Data may be generated within this form by selecting the Add button.

Signature:

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications

Signature			Date (YYYY-MM-DD)	2013-06-06
First Name	Ricardo	Last Name	Ochoa	Registration Number 61545

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	068A.0005.U1(US)
		Application Number	
Title of Invention	Intelligent Clearing Network		

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Document code: WFEE

United States Patent and Trademark Office
Sales Receipt for Accounting Date: 06/27/2013

CCETIN	SALE	#00000020	Mailroom Dt:	06/06/2013	501924	13911175
		01	FC : 4011	70.00	DA	
		02	FC : 2111	300.00	DA	
		03	FC : 2311	360.00	DA	
		04	FC : 2051	70.00	DA	

Document code: WFEE

United States Patent and Trademark Office
Sales Receipt for Accounting Date: 06/27/2013

CCETIN	ADJ #00000006	Mailroom Dt: 06/06/2013		
	Seq No: 9285	Sales Acctg Dt: 06/06/2013	501924	13911175
	01 FC : 1011	280.00 CR		
	02 FC : 1111	600.00 CR		
	03 FC : 1311	720.00 CR		



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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
13/911,175	06/06/2013	3622	800	068A.0005.U1(US)	20	3

CONFIRMATION NO. 1021

29683
HARRINGTON & SMITH
4 RESEARCH DRIVE, Suite 202
SHELTON, CT 06484-6212

FILING RECEIPT



OC000000062257482

Date Mailed: 07/05/2013

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Inventor(s)

Richard B. Thibedeau, Plainville, CT;
Brian Schulte, West Haven, CT;
Michael Skelton, Milford, CT;
Gary Oakley, New Canaan, CT;
Jon Robertson, East Dennis, MA;

Applicant(s)

INTELLIGENT CLEARING NETWORK, INC., New Canaan, CT

Power of Attorney: None

Domestic Priority data as claimed by applicant

This application is a CIP of 13/773,704 02/22/2013
which is a CON of 12/587,193 10/02/2009 PAT 8386309
which is a CIP of 12/283,206 09/09/2008
which is a CIP of 11/439,725 05/23/2006

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see <http://www.uspto.gov> for more information.) - None.

Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

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page 1 of 3

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 13/911,175**

Projected Publication Date: 10/17/2013

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

INTELLIGENT CLEARING NETWORK

Preliminary Class

705

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/911,175	06/06/2013	Richard B. Thibedeau	068A.0005.U1(US)

CONFIRMATION NO. 1021

29683
HARRINGTON & SMITH
4 RESEARCH DRIVE, Suite 202
SHELTON, CT 06484-6212

NOTICE



Date Mailed: 07/05/2013

INFORMATIONAL NOTICE TO APPLICANT

Applicant is notified that the above-identified application contains the deficiencies noted below. No period for reply is set forth in this notice for correction of these deficiencies. However, if a deficiency relates to the inventor's oath or declaration, the applicant must file an oath or declaration in compliance with 37 CFR 1.63, or a substitute statement in compliance with 37 CFR 1.64, executed by or with respect to each actual inventor no later than the expiration of the time period set in the "Notice of Allowability" to avoid abandonment. See 37 CFR 1.53(f).

The item(s) indicated below are also required and should be submitted with any reply to this notice to avoid further processing delays.

- A properly executed inventor's oath or declaration has not been received for the following inventor(s):

Richard B. Thibedeau
Brian Schulte
Michael Skelton
Gary Oakley
Jon Robertson

Applicant may submit the inventor's oath or declaration at any time before the Notice of Allowance and Fee(s) Due, PTOL-85, is mailed.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875						Application or Docket Number 13/911,175			
APPLICATION AS FILED - PART I									
(Column 1)		(Column 2)		SMALL ENTITY		OR OTHER THAN SMALL ENTITY			
FOR	NUMBER FILED	NUMBER EXTRA	RATE(\$)	FEE(\$)		RATE(\$)	FEE(\$)		
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	70		N/A			
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A	300		N/A			
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	360		N/A			
TOTAL CLAIMS (37 CFR 1.16(j))	20	minus 20 = *	x 40 =	0.00	OR				
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3	minus 3 = *	x 210 =	0.00					
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			0.00					
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				0.00					
			TOTAL	730		TOTAL			
* If the difference in column 1 is less than zero, enter "0" in column 2.									
APPLICATION AS AMENDED - PART II									
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY		OR OTHER THAN SMALL ENTITY	
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)	
	Total (37 CFR 1.16(i))	*	Minus **	=	x =	OR	x =		
	Independent (37 CFR 1.16(h))	*	Minus ***	=	x =	OR	x =		
	Application Size Fee (37 CFR 1.16(s))					OR			
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					OR			
			TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE			
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY		OR OTHER THAN SMALL ENTITY	
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)	
	Total (37 CFR 1.16(i))	*	Minus **	=	x =	OR	x =		
	Independent (37 CFR 1.16(h))	*	Minus ***	=	x =	OR	x =		
	Application Size Fee (37 CFR 1.16(s))					OR			
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					OR			
			TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE			
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.									



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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/911,175	06/06/2013	Richard B. Thibedeau	068A.0005.U1(US)

CONFIRMATION NO. 1021

PUBLICATION NOTICE



OC00000064440726

29683
HARRINGTON & SMITH
4 RESEARCH DRIVE, Suite 202
SHELTON, CT 06484-6212

Title:INTELLIGENT CLEARING NETWORK

Publication No.US-2013-0275197-A1

Publication Date:10/17/2013

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently <http://www.uspto.gov/patft/>.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Office of Public Records. The Office of Public Records can be reached by telephone at (703) 308-9726 or (800) 972-6382, by facsimile at (703) 305-8759, by mail addressed to the United States Patent and Trademark Office, Office of Public Records, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently <http://pair.uspto.gov/>. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

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POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(c).

I hereby appoint:



Practitioners associated with Customer Number:

27805

OR

Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number

Name	Registration Number

As attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignments documents attached to this form in accordance with 37 CFR 3.73(c).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(c) to:



The address associated with Customer Number:

27805

OR

☐	Firm or Individual Name			
☐	Address			
	City	State	Zip	
	Country			
	Telephone	Email		

Assignee Name and Address: Intelligent Clearing Network, Inc.
31 Lakeview Avenue
New Canaan, Connecticut 06840**A copy of this form, together with a statement under 37 CFR 3.73(c) (Form PTO/AIA/96 or equivalent) is required to be Filed in each application in which this form is used. The statement under 37 CFR 3.73(c) may be completed by one of The practitioners appointed in this form, and must identify the application in which this Power of Attorney is to be filed.****SIGNATURE of Assignee of Record**

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee

Signature	<i>Gary W. Oakley</i>	Date	10/12/13
Name	Gary W. Oakley	Telephone	
Title	Chairman and CEO - Intelligent Clearing Network, Inc.		

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: Intelligent Clearing Network, Inc.

Application No./Patent No.: 13/911,175

Filed/Issue Date: June 6, 2013

Titled: INTELLIGENT CLEARING NETWORK

Intelligent Clearing Network, Inc., a Corporation

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose one of options 1, 2, 3 or 4 below):

1. ☒ The assignee of the entire right, title, and interest.

2. ☐ An assignee of less than the entire right, title, and interest (check applicable box):

☐ The extent (by percentage) of its ownership interest is _____%. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.

☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. ☐ The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. ☐ The recipient, via a court proceeding or the like (e.g., bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose one of options A or B below):

A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 023711, Frame 0781, or for which a copy thereof is attached.

B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

2. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

[Page 1 of 2]

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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STATEMENT UNDER 37 CFR 3.73(c)

3. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
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4. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

5. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

6. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

☐ As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

Signature

Gary W. Oakley

Printed or Typed Name

Date

10/12/13
Chairman and CEO

Title or Registration Number

[Page 2 of 2]

Electronic Acknowledgement Receipt

EFS ID:	17386335
Application Number:	13911175
International Application Number:	
Confirmation Number:	1021
Title of Invention:	INTELLIGENT CLEARING NETWORK
First Named Inventor/Applicant Name:	Richard B. Thibedeau
Customer Number:	29683
Filer:	Megan Dowd Dortenzo/Juan Arias
Filer Authorized By:	Megan Dowd Dortenzo
Attorney Docket Number:	068A.0005.U1(US)
Receipt Date:	13-NOV-2013
Filing Date:	06-JUN-2013
Time Stamp:	10:01:54
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		US13911175.pdf	200593 ff1a69881d34867152ed5583d01f72adc6328b13	yes	3

	Multipart Description/PDF files in .zip description		
	Document Description	Start	End
	Power of Attorney	1	1
	Assignee showing of ownership per 37 CFR 3.73.	2	3
Warnings:			
Information:			
Total Files Size (in bytes):		200593	
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.			



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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/911,175	06/06/2013	Richard B. Thibedeau	068A.0005.U1(US)

27805
THOMPSON HINE L.L.P.
10050 Innovation Drive
Suite 400
DAYTON, OH 45342-4934

CONFIRMATION NO. 1021
POA ACCEPTANCE LETTER



Date Mailed: 11/21/2013

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 11/13/2013.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

/qtran/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/911,175	06/06/2013	Richard B. Thibedeau	068A.0005.U1(US)	1021

27805 7590 06/15/2016
THOMPSON HINE L.L.P.
10050 Innovation Drive
Suite 400
DAYTON, OH 45342-4934

EXAMINER

VAN BRAMER, JOHN W

ART UNIT	PAPER NUMBER
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3622

NOTIFICATION DATE	DELIVERY MODE
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06/15/2016

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):

ipdocket@thompsonhine.com

Office Action Summary	Application No. 13/911,175	Applicant(s) THIBEDEAU ET AL.	
	Examiner JOHN VAN BRAMER	Art Unit 3622	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 June 6, 2013.
☐ 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) 1-20 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) 1-20 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 06/06/2013 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) | 3) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) ☒ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)
Paper No(s)/Mail Date <u>060613</u> | 4) ☐ Other: _____ |

DETAILED ACTION

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

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more. Claim(s) 1-20 is/are directed to an abstract idea. The claim(s) does/do not include additional elements that are sufficient to amount to significantly more than the judicial exception. The applicant has invented a system for validating coupons at a point of sale. The examiner has identified that the claims are directed towards a method, an apparatus, and a product which is/are a statutory class of invention. Next, the examiner analyzed the claims to determine whether they are directed to a judicial exception. The examiner determined that the claims are directed to an abstract idea. The identified abstract idea at the heart of the claims is validating coupons at a point of sale device. The limitations that set forth the abstract idea are:

1. Receiving data elements for validation and redemption during a transaction, the data elements including product code information of an item to be purchased and coupon information, where the coupon information is received

which is considered “comparing new and stored information and using rules to identify options” (e.g. SmartGene) which is “An Idea "Of Itself"” and as such is an abstract idea.

2. Validating at least one coupon based at least in part on the product code information and the coupon information which is considered “comparing new and stored information and using rules to identify options” (e.g. SmartGene) which is “An Idea "Of Itself"” and as such is an abstract idea.

3. In response to validating the at least one coupon, sending a coupon message that indicates whether the at least one coupon has been validated for redemption in the transaction which is considered “using categories to organize, store and transmit information” (e.g. Cyberfone) which is “An Idea "Of Itself"” and as such is an abstract idea.

As such, these steps are similar to the concepts identified as abstract ideas by the courts. The claim elements in addition to the abstract idea are “a processor”; “a memory including computer program code”; “the memory and computer program code configured to, with the processor”; “at a server”; “from a point-of-sale device” and “at the point-of-sale device located at a first location, where the server is at a second location that is remote from the first location”. The processor, memory, code, server, and point-of-sale device are recited at a high level of generality, and comprise general purpose computers performing the generic computer functions of receiving data elements, validating at least one coupon, and sending a coupon message. Generic computers performing generic computer functions, alone, do not

amount to significantly more than the abstract idea. Considered individually, the steps of receiving data elements, validating at least one coupon, and sending a coupon message further describe the abstract idea but do not make it less abstract. Next, the examiner considered whether the ordered combination of steps in the claim recited an abstraction (an idea having no particular concrete or tangible form). Aside from the recitation of a general purpose computer, the steps of receiving data elements, validating at least one coupon, and sending a coupon message all describe an abstract idea, devoid of a concrete or tangible application. The claims merely recite the performance of an abstract idea using a computer and/or a computer network. The examiner next determined whether the claims do significantly more than simply describe the abstract method and whether the limitations of the claims contain an "inventive concept" to "transform" the claimed abstract idea into patent-eligible subject matter and concluded that the limitations do not transform the abstract idea that they recite into patent-eligible subject matter because the claims simply instruct the practitioner to implement the abstract idea with "routine, conventional activities" using general purpose computing devices which is insufficient to transform the patent-ineligible abstract idea into patent-eligible subject matter. Considered as a whole, the recited steps merely organize the abstract idea into a stepwise description of a process used to perform the abstract idea and amount to no more than validating coupons at a point of sale device. The claim merely instructs the practitioner to implement the concept of validating coupons at a point of sale device with routine, conventional activity

Art Unit: 3622

specified at a high level of generality in a particular technological environment.

When view either individual or as an order combination, the claim as a whole does not add significantly more to the abstract idea of validating coupons at a point of sale device. As such, the claim is not patent eligible. The claims are similar to the Ultramercial, and Planet Bingo cases in which the claims merely describe management, organization, and/or performance of an abstract idea using a general purpose computer in communication with a network. The dependent claims have been analyzed in the same fashion and do not cure the deficiencies of the independent claims from which they depend. As such, the dependent claims are rejected by virtue of dependency.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112(a):

(a) IN GENERAL.—The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

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

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 9 is rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The claim(s)

Art Unit: 3622

contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for pre-AIA the inventor(s), at the time the application was filed, had possession of the claimed invention. The only recitation of a Women, Infant, and Children program vouchers is found in the claims as originally filed. There is neither enough information in the claims and/or the specification to prove that the applicant had possession of this feature nor to reasonably convey to one skilled in the relevant art what this feature is. Given that the terms "Woman", "Infant" and "Children" are capitalized it would seem to indicate that it refers to a specific proprietary voucher program that is not explained in the specification. Even if it were not a specific program, the specification and claims do not provide any specific indication directed towards the program the woman, infant, and children voucher refer to. As such, the subject matter was not described in the specification and/or original claims in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for pre-AIA the inventor(s), at the time the application was filed, had possession of the claimed invention

Claim Rejections - 35 USC § 102

6. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

7. The following is a quotation of the appropriate paragraphs of pre-AIA 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-20 are rejected under pre-AIA 35 U.S.C. 102(e) as being anticipated by Fajkowski (PGPUB: US 2005/0230473).

Claims 1, 15 and 18: Fajkowski discloses a method, an apparatus, and a computer readable medium tangibly encoded with a computer program executable by a processor to perform actions comprising:

- a. A processor. (Paragraphs [0009]; [0010]; [0014] through [0016]; [0063]; and [0080]-[0085])
- b. A memory including computer program code, the memory and computer program code configured to, with the processor, (Paragraphs [0009]; [0010]; [0014] through [0016]; [0063]; and [0080]-[0085]) cause the apparatus to perform at least the following:
 1. Receiving, at a server, data elements from a point-of-sale device for validation and redemption during a transaction, the data elements including product code information of an item to be purchased and coupon information,

- where the coupon information is received at the point-of-sale device located at a first location, where the server is at a second location that is remote from the first location. (Fig. 1; Fig 10; Paragraphs [0009] through [0012]; [0042]; [0048] through [0050] [0065] through [0069]; [0085]; [0087] through [0090] and [0095])
2. Validating at least one coupon based at least in part on the product code information and the coupon information. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])
 3. In response to validating the at least one coupon, sending a coupon message that indicates whether the at least one coupon has been validated for redemption in the transaction. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050]; [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claim 2: Fajkowski discloses the method of claim 1, where the coupon information comprises a serial number that uniquely identifies an instance of coupon, where the at least one coupon comprises the instance of the coupon. (Figures 6, 7a, 7b, 8, and 9; Paragraphs [0010]; [0062] through [0071]; and [0106])

Claim 3. Fajkowski discloses the method of claim 2, where validating the at least one coupon comprises verifying that the serial number is loaded in a database of

authorized coupon serial numbers. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claim 4: Fajkowski discloses the method of claim 1, where validating the at least one coupon comprises verifying, for each of the at least one coupon, whether the coupon is not loaded in a database of unacceptable coupons. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claims 5, 16 and 19: Fajkowski discloses the method of claim 1, the apparatus of claim 15, and the computer readable medium of claim 18, further comprising: receiving an indication that an instance of a coupon is printed, where the digital coupon comprises a serial number that uniquely identifies the instance of the coupon; and in response to receiving the indication that the instance of the coupon is printed, adding the serial number to a database of authorized coupon serial numbers. (Paragraphs [0014] through [0016]; [0049] through [0052]; [0065] through [0067]; [0070] through [0073])

Claim 6: Fajkowski discloses the method of claim 1, where the coupon information comprises a master coupon information, where the method further comprises, in response to receiving the master coupon information, identifying at least two

coupons, where the at least two coupons are associated with the master coupon, and where the at least one coupon comprises the at least two coupons. (Paragraphs [0088] through [0091])

Claim 7: Fajkowski discloses the method of claim 1, further comprising:

- a. Adding first coupon details for a first coupon to a coupon database. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])
- b. Receiving second coupon details for the first coupon. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])
- c. In response to receiving the second coupon details for the first coupon, updating the coupon database with the second coupon details, where receiving the data elements occurs after updating the coupon database, where the at least one coupon comprises the first coupon and where the coupon message further comprises at least a portion of the second coupon details. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claim 8: Fajkowski discloses the method of claim 1, further comprising:

- a. Receiving redemption information for the transaction indicating that the at least one coupon has been redeemed. (Fig. 1; Fig 10; Paragraphs [0009] through

[0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

- b. In response to receiving the redemption information, storing the redemption information in a redemption database. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])
- c. Generating a redemption data report based on the redemption information database regarding at least one transaction, where the redemption data report comprises, for each transaction of at least one transaction, information identifying an item purchased redeeming at least one coupon during the transaction. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claim 10: Fajkowski discloses the method of claim 1, where the point-of-sale device comprises a computer performing an on-line purchase. (Fig. 1; Fig 10; Paragraphs [0009] through [0015]; [0017]; [0042] through [0045]; [0047] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claim 11: Fajkowski discloses the method of claim 1, where validating the at least one coupon is further based on a zone assigned to the point-of-sale device. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claims 12, 17, and 20: Fajkowski discloses the method of claim 1, the apparatus of claim 15, and the computer readable medium of claim 18 further comprising:

- a. Receiving redemption information for the transaction indicating that the at least one coupon has been redeemed. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])
- b. Analyzing the redemption information in order to detect an alert event. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])
- c. In response to detecting an alert event, generating a notification that the alert event occurred. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claim 13: Fajkowski discloses the method of claim 12, where generating the notification comprises sending a message to the first location. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claim 14: Fajkowski discloses the method of claim 12, where an alert event is one of: when redemption of a coupon which was indicated as invalid is performed; when

the data elements include an account number for customer in a given customer class; when redemption of a coupon at a price that is not authorized is performed; when a threshold number of redemptions by a specific clerk of coupons at prices that are not authorized is reach; when redemption of a coupon at a price sufficiently different from a price that is authorized is performed; when an average amount of time between transactions by a specific clerk exceeds a threshold time; and when a threshold number of manual inputs of coupon information indicates a potential point-of sale device failure. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claim Rejections - 35 USC § 103

9. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

10. 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.

11. Claim 9 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Fajkowski (PGPUB: US 2005/0230473).

Claim 9: Fajkowski discloses the method of claim 1, where the coupon is voucher (Paragraphs [0009] through [0012]; [0042]; [0048] through [0050] [0065] through [0069]; [0076] through [0078]; [0085]; [0087] through [0090] and [0095]). While Fajkowski does not specifically state that the voucher is a Women Infants and Children program voucher, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included Women, Infant, and Children program vouchers in the invention of Fajkowski. The rationale for doing so is that there are a limited number of predictable types of coupons and a Women, Infant, and Children program vouchers is one such predictable type of coupon.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN VAN BRAMER whose telephone number is (571)272-8198. The examiner can normally be reached on 6am - 4pm Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Stamber can be reached on (571) 272-6724. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3622

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.

/JOHN VAN BRAMER/
John Van Bramer
Primary Examiner, Art Unit 3622

Notice of References Cited	Application/Control No. 13/911,175	Applicant(s)/Patent Under Reexamination THIBEDEAU ET AL.	
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	M	US-				

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	N					
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	S					
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NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
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Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

INFORMATION DISCLOSURE CITATION FORM FOR PATENT APPLICATION (FORM PTO-1449) (Substitute)		Docket No.: 068A.0005.U1(US)		Serial No.:	
		Applicant(s): Thibedeau et al.			
		Filing Date: herewith		Group:	
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Initial if reference was considered, whether or not citation is in conformance with MPEP. Mark through citation if not considered. Include a copy of this citation form with your next correspondence to the Applicant(s).					

INFORMATION DISCLOSURE CITATION FORM FOR PATENT APPLICATION (FORM PTO-1449) (Substitute)		Docket No.: 068A.0005.U1(US) Serial No.:			
		Applicant(s): Thibedeau et al.			
		Filing Date: herewith Group:			
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Examiner's Signature: /John Van Bramer/			Date Considered: 06/12/2016		
Initial if reference was considered, whether or not citation is in conformance with MPEP. Mark through citation if not considered. Include a copy of this citation form with your next correspondence to the Applicant(s).					

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/Gabriel T. Applegate/
Gabriel T. Applegate, Reg. No. 74,207

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventors: Richard B. Thibedeau et al.
Serial No.: 13/911,175
Filed: June 6, 2013
Group Art Unit: 3622
Examiner: John W. Van Bramer
Confirmation No.: 1021
Title INTELLIGENT CLEARING NETWORK
Atty Docket No.: 091480.00002USCP3

Filed Via EFS-Web

AMENDMENT

To Commissioner of Patents:

In reply to the Office Action dated June 15, 2016, please amend the above identified application as follows:

Amendments to the Claims are reflected in the listing of claims that begins on page 2 of this paper.

Remarks begin on page 8.

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method comprising:

receiving, at a coupon processing server, data elements from a networked point-of-sale device for validation and redemption during a transaction, the data elements including product code information of an item to be purchased and coupon information, where the coupon information is received at the point-of-sale device located at a first location[[,]] and where the coupon processing server is at a second location that is remote from the first location;

validating, by the coupon processing server, at least one coupon based at least in part on the product code information and the coupon information; and

in response to validating the at least one coupon, sending, by the coupon processing server, a coupon message that indicates whether the at least one coupon has been validated for redemption in the transaction.

2. (Currently Amended) The method of claim 1, where the coupon information comprises a serial number that uniquely identifies an instance of the coupon, where the at least one coupon comprises the at least one instance of the coupon.

3. (Original) The method of claim 2, where validating the at least one coupon comprises verifying that the serial number is loaded in a database of authorized coupon serial numbers.

4. (Original) The method of claim 1, where validating the at least one coupon comprises verifying, for each of the at least one coupon, whether the coupon is not loaded in a database of unacceptable coupons.

5. (Currently Amended) The method of claim 1, further comprising:

receiving, by the coupon processing server, an indication that an instance of a coupon is printed, where the digital coupon comprises a serial number that uniquely identifies the instance of the coupon; and

in response to receiving the indication that the instance of the coupon is printed, adding the serial number to a database of authorized coupon serial numbers.

6. (Currently Amended) The method of claim 1, where the coupon information comprises a master coupon information, where the method further comprises, in response to receiving the master coupon information, identifying at least two coupons, and where the at least two coupons are associated with the master coupon ~~and where the at least one coupon comprises the at least two coupons.~~

7. (Original) The method of claim 1, further comprising:
adding first coupon details for a first coupon to a coupon database;
receiving second coupon details for the first coupon; and
in response to receiving the second coupon details for the first coupon, updating the coupon database with the second coupon details,
where receiving the data elements occurs after updating the coupon database,
where the at least one coupon comprises the first coupon and
where the coupon message further comprises at least a portion of the second coupon details.

8. (Original) The method of claim 1, further comprising:
receiving redemption information for the transaction indicating that the at least one coupon has been redeemed;
in response to receiving the redemption information, storing the redemption information in a redemption database; and
generating a redemption data report based on the redemption information database regarding at least one transaction, where the redemption data report comprises, for each transaction of at least one transaction, information identifying an item purchased redeeming at least one coupon during the transaction.

9. (Original) The method of claim 1, where the coupon is a Women Infants and Children program voucher.

10. (Original) The method of claim 1, where the point-of-sale device comprises a computer performing an on-line purchase.

11. (Original) The method of claim 1, where validating the at least one coupon is further based on a zone assigned to the point-of-sale device.

12. (Original) The method of claim 1, further comprising:

receiving redemption information for the transaction indicating that the at least one coupon has been redeemed;

analyzing the redemption information in order to detect an alert event; and

in response to detecting an alert event, generating a notification that the alert event occurred.

13. (Original) The method of claim 12, where generating the notification comprises sending a message to the first location.

14. (Original) The method of claim 12, where an alert event is one of:

when redemption of a coupon which was indicated as invalid is performed;

when the data elements include an account number for customer in a given customer class;

when redemption of a coupon at a price that is not authorized is performed;

when a threshold number of redemptions by a specific clerk of coupons at prices that are not authorized is reached;

when redemption of a coupon at a price sufficiently different from a price that is authorized is performed;

when an average amount of time between transactions by a specific clerk exceeds a threshold time; and

when a threshold number of manual inputs of coupon information indicates a potential point-of-sale device failure.

15. (Currently Amended) An apparatus, comprising:

a processor; [[and]]

a memory coupled to the processor, the memory including computer program code,~~the memory and the computer program code~~ configured to, ~~with the processor,~~ cause the apparatus to ~~perform at least the following:~~

~~receiving~~ receive, at a coupon processing server, data elements from a networked point-of-sale device for validation and redemption during a transaction, the data elements including product code information of an item to be purchased and coupon information, where the coupon information is received at the point-of-sale device located at a first location[[,]] and where the coupon processing server is at a second location that is remote from the first location;

~~validating~~ validate, by the coupon processing server, at least one coupon based at least in part on the product code information and the coupon information; and

in response to validating the at least one coupon, ~~sending~~ send, by the coupon processing server, a coupon message that indicates whether the at least one coupon has been validated for redemption in the transaction.

16. (Currently Amended) The apparatus of claim 15, where the ~~at least one memory and the computer program code~~ [[are]] is further configured to cause the apparatus to:

[[to]] receive an indication that an instance of a coupon is printed, where the digital coupon comprises a serial number that uniquely identifies the instance of the coupon; and

in response to receiving the indication that the instance of the coupon is printed, to add the serial number to a database of authorized coupon serial numbers.

17. (Currently Amended) The apparatus of claim 15, where the ~~at least one memory and the computer program code~~ [[are]] is further configured to ~~cause the apparatus:~~

[[to]] receive redemption information for the transaction indicating that the at least one coupon has been redeemed;

to analyze the redemption information in order to detect an alert event; and

in response to detecting an alert event, to generate a notification that the alert event occurred.

18. (Currently Amended) A ~~computer readable medium tangibly encoded with a computer program executable by a processor to perform actions~~ product comprising:

a non-transitory computer readable storage medium; and
program code stored on the non-transitory computer readable storage medium and
configured upon execution by at least one processor to:

~~receiving~~ receive, at a coupon processing server, data elements from a networked point-of-sale device for validation and redemption during a transaction, the data elements including product code information of an item to be purchased and coupon information, where the coupon information is received at the point-of-sale device located at a first location[,], and where the coupon processing server is at a second location that is remote from the first location;

~~validating~~ validate, by the coupon processing server, at least one coupon based at least in part on the product code information and the coupon information stored in a coupon database; and

in response to validating the at least one coupon, ~~sending~~ send, by the coupon processing server, a coupon message that indicates whether the at least one coupon has been validated for redemption in the transaction.

19. (Currently Amended) The computer ~~readable-medium~~ program product of claim 18, where the ~~actions~~ program code is further ~~comprise~~ configured upon execution to:

~~receiving~~ receive an indication that an instance of a coupon is printed, where the digital coupon comprises a serial number that uniquely identifies the instance of the coupon; and

in response to receiving the indication that the instance of the coupon is printed, adding the serial number to a database of authorized coupon serial numbers.

20. (Currently Amended) The computer ~~readable-medium~~ program product of claim 18, where the ~~actions~~ program code is further ~~comprise~~ configured upon execution to:

~~receiving~~ receive redemption information for the transaction indicating that the at least one coupon has been redeemed;

~~analyzing~~ analyze the redemption information in order to detect an alert event; and

in response to detecting an alert event, ~~generating~~ generate a notification that the alert event occurred.

REMARKS

This Amendment is in reply to the Office Action dated June 15, 2016. Claims 1-20 are pending. Claims 1-3, 5-7, and 15-20 are amended. In view of the following remarks and in view of the preceding amendments and the following remarks, Applicant respectfully submits that this Application is in complete condition for allowance and requests reconsideration of the Application in this regard.

Rejection under 35 U.S.C. § 101

Claims 1-20 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. In breaking the claims apart into their steps and analyzing each step separately, Examiner contends that the claims are directed to the following abstract ideas of "comparing new and stored information and using rules to identify options" and "using categories to organize, store and transmit information," stating that the recited steps "amount to no more than validating coupons at a point of sale device." See pages 2-5 of Office Action. Examiner also concludes that the claims "do not amount to significantly more than the underlying abstract idea." *Id.* Applicant respectfully traverses the rejection.

As the Court wrote in *Alice*, "At some level, all inventions . . . embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas" (internal citations and quotations removed). Thus, an invention is not rendered ineligible for patent simply because it involves an abstract concept. See *Diamond v. Diehr*, 450 U. S. 175, 187 (1981). "[A]pplication[s]" of such concepts "'to a new and useful end,'" we have said, remain eligible for patent protection. *Gottschalk v. Benson*, 409 U. S. 63, 67 (1972)." Furthermore, "[a]n inventive concept can be found in the non-conventional and non-generic arrangement of the additional element," including additional elements consisting of "generic computer, network, and Internet components." See November 2, 2016, Memo to Patent Examining Corps. Regarding "Recent Subject Matter Eligibility" discussing *Bascom Global Internet Services, Inc. v. AT&T Mobility LLC*, (Fed. Cir. June 27, 2016) and *McRO, Inc. v. Bandai Namco Games America Inc.*, No. 2015-1080 (Fed. Cir. Sept. 13, 2016). "[C]ourts 'must be careful to avoid oversimplifying the claims' by looking at them generally and failing to account for the specific requirements of the claims Whether at step one or step two of the *Alice* test, in determining the patentability of a method, a court must look to the claims as an ordered combination, without ignoring the requirements of the individual steps. The specific, claimed features of [the] rules allow for the improvement realized by the invention." *McRO* slip op. at 21. (first quoting *In re TLI Commc'ns*

LLC Patent Litig., 823 F.3d 607, 611 (Fed. Cir. 2016); and then citing *Diamond v. Diehr*, 450 U.S. 175 (1981). at 189 n.12).

First, Applicant's claims are not directed to an abstract idea because the claimed embodiment is directed to an invention that amounts to specific improvements to point-of-sale (POS) system computing technology. POS systems are presently used to scan customer-presented paper coupons and, as explained by Applicant's specification, the present process of "validating, clearing, and financial settlement associated with paper coupons can be a slow, labor intensive process potentially prone to fraud and misuse." *See* Applicant's Specification, paragraph [0004]. To improve the functionality of present POS systems, Applicant's claims set forth an improved technological process of searching for, redeeming, and validating coupons across a network, including transfer of information from a POS device connected across a network to a remote server performing coupon validation and redemption services. *See* Applicant's Specification, paragraphs [0031]-[0033], [0039], and [0046]. By enabling POS systems to dynamically process, redeem, and validate coupons by incorporating real-time promotion and redemption data, Applicant's claimed invention "represents a 'software-based invention that improve[s] the performance of the computer system itself.'" *Bascom*. at page 18.

Second, the claims are directed to a particular solution to a problem, as opposed to merely claiming the idea of a solution or outcome. Indeed, the claims are clearly directed to methods, systems, and computer program products for redeeming and validating coupons by utilizing real-time promotion and redemption data at the server (which is an improvement over existing redemption and validation systems; namely, manually counting and validating paper coupons) and do not merely "amount to no more than validating coupons at a point of sale device." *See* page 4 of Office Action. Instead, independent claims 1, 15, and 18 include at least a network, a POS device, and a remote server arranged to perform coupon/promotion services, wherein the server include means for processing, validating, and redeeming a coupon or promotion, as well as accessing coupon data. Moreover, the server also includes the means to indicate validation and redemption status back to the POS device.

It is clear that Applicant's claims do not merely compare new and stored information and use rules to identify options or simply use categories to organize, store, and transmit information (as stated by the Examiner), but instead recite complex computing components (a POS device, network, server, etc.) and functions of a sophisticated coupon clearing system. Indeed, a coupon clearing system is not "a method of organizing human activity" as suggested by the Examiner,

but rather "a particular solution to a problem or a particular way to achieve a desired outcome defined by the claimed invention." *See* November 2, 2016, Memo to Patent Examining Corps. Regarding "Recent Subject Matter Eligibility."

Even if the claims at issue may be considered to be directed to a patent-ineligible abstract idea (which is not admitted), the claims do not preempt all applications of the abstract idea and include additional elements that transform the nature of the claims into a patent-eligible application of the abstract idea. In particular, the claims apply the judicial exception with, or by use of, a particular machine and add specific limitations other than what is well-understood, routine and conventional in the field, or add unconventional steps that confine the claim to a particular useful application. *See* 2014 Interim Guidance on patent Subject Matter Eligibility, Dec. 16, 2014, at 21-24. In analyzing claims under Step 2B, examiners are to "consider the additional elements in combination, as well as individually, when determining whether a claim as a whole amounts to significantly more, as this may be found in the nonconventional and non-generic arrangement of known, conventional elements." *See* November 2, 2016, Memo to Patent Examining Corps. Regarding "Recent Subject Matter Eligibility." Briefly summarized, the claims are directed to specific complex systems and methods that include a remote server that receives coupon redemption requests from a POS device connected to a network, dynamically processes the request based on stored coupon data, and sends a dynamically generated redemption and validation status back to the POS device (as discussed above). Therefore, the claims are not directed to a patent ineligible combination of generic computer components, but rather to a particular set of computer components listed in the claims arranged for carrying out the listed complex computing functions. Moreover, Applicant's claims "do not attempt to preempt every application of the idea" of a POS system, further evidencing that Applicant's claims include specific limitations other than what is well-understood, routine and conventional in the field. *See DDR Holdings* at 21-24.

The instant claims are most similar to those in *Bascom*, which include the following elements found to be patent eligible by the Federal Circuit: 1) "a local client computer generating network access requests for said individual controlled access network accounts;" 2) "at least one filtering scheme;" 3) "a plurality of sets of logical filtering elements;" and 4) "a remote ISP server coupled to said client computer and said Internet computer network, said ISP server associating each said network account to at least one filtering scheme and at least one set of filtering elements, said ISP server further receiving said network access requests from said client

computer and executing said associated filtering scheme utilizing said associated set of logical filtering elements." *See Bascom*.

Likewise, Applicant's claim 1 includes the following elements: 1) "a server" (similar to a remote ISP computer in *Bascom*); 2) "a networked point-of-sale device" (similar to a local client computer in *Bascom*); 3) the server being configured to receive "data elements from a networked point-of-sale device for validation and redemption during a transaction, the data elements including product code information of an item to be purchased and coupon information" (similar to the ISP server receiving network access requests); and 4) the response server is configured to "validat[e] at least one coupon based at least in part on the product code information and the coupon information; and in response to validating the at least one coupon, send[] a coupon message that indicates whether the at least one coupon has been validated for redemption in the transaction." (similar to the filtering concepts in *Bascom*). As such, because the claims in the instant case are similar to those in *Bascom*, Applicant asserts that like the claims in *Bascom*, the instant claims are patent eligible.

For at least the above reasons, Applicant's claims include significantly more than the alleged abstract idea because they present a non-conventional and non-generic arrangement of what may be otherwise known, conventional pieces. Accordingly, Applicant respectfully requests that the rejection of claims 1-20 under 35 U.S.C. § 101 be withdrawn.

Rejection under 35 U.S.C. § 112

Claim 9 stands rejected under 35 U.S.C. 112(a) as failing to comply with the written description requirement. Specifically, Examiner contends that Applicant's disclosure does not sufficiently describe how Applicant's claimed method can be applied when the coupon is a "Women, Infant, and Children program voucher." *See* pages 5-6 of Office Action. Applicant respectfully traverses the rejection.

The written description requirement is satisfied when a disclosure describes a claimed invention in a manner that permits one skilled in the art to reasonably conclude that the inventor possessed the claimed invention. *See* MPEP §2163. Possession may be shown in any number of ways and an Applicant need not describe every claim feature exactly because there is no in haec verba requirement. *Id.* Rather, all that is required to satisfy the written description requirement is "reasonable clarity." *See* MPEP § 2163.02. An adequate description may be made through express, implicit, or even inherent disclosures in the application, including words, structures,

figures, diagrams, and/or formulae. *Id.* Finally, “there is an inverse correlation between the level of skill and knowledge in the art and the specificity of disclosure necessary to satisfy the written description requirement. Information which is well known in the art need not be described in detail in the specification.” *See* MPEP § 2163(II)(A)(2)).

As the Office Action notes, claim 9 recites where the coupon is a “Women Infants and Children program voucher.” *See* pages 5-6 of Office Action. Applicant respectfully asserts the claimed use of Women Infants and Children (WIC) program vouchers would be well within the understanding of one of ordinary skill in the art, particularly given that any retailer of food would routinely process standard POS payments in the form of WIC vouchers. Contrary to Examiner’s assertion that the “specific proprietary voucher program is not explained in the specification” (see page 6 of Office Action), a review of the present application reveals that Applicant explains the WIC program is a “federally subsidized nutrition program,” describes WIC vouchers, provides examples of WIC vouchers, and describes how an embodiment of the invention may be used when the coupon is a WIC voucher. *See* paragraphs [0161]-[0162] of Applicant’s specification. Therefore, one of ordinary skill in the art would reasonably conclude that Applicant’s disclosure adequately described the claimed invention at the time of filing. For at least these reasons, the Examiner has unreasonably interpreted the terms “Women, Infant, and Children” too broadly and in a manner that is inconsistent with the way the term is used in Applicant’s specification.

In view of the foregoing, Applicant respectfully submits that ordinarily skilled artisans would reasonably conclude that Applicant possessed the claimed method as applied when the coupon is a “Women, Infant, and Children program voucher.” Applicant further submits that the claimed use of WIC vouchers need not be described in further detail in the specification because the standard redemption of WIC vouchers is well known in the art.

Accordingly, Applicant respectfully requests favorable reconsideration and withdrawal of the rejection under 35 U.S.C. § 112 because the present application adequately describes the claimed invention.

Rejections under 35 U.S.C. § 102

Claims 1-8 and 10-20

Claims 1-8 and 10-20 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Pub. No. 2005/0230473 to Fajkowski (hereinafter “Fajkowski”). Applicant respectfully traverses the rejection.

Claim 1 recites, “receiving, at a coupon processing server, data elements from a networked point-of-sale device for validation and redemption during a transaction [...] where the coupon information is received at the point-of-sale device located at a first location and where the coupon processing server is at a second location that is remote from the first location.” The Examiner-cited system of Fajkowski optionally includes a “local server computer” that “may be networked to all the periphery devices in the store.” *See* paragraph [0011]. However, Fajkowski does not teach a “networked point-of-sale device” “located at a first location” and a “coupon processing server” located “at a second location that is remote from the first location,” as claimed by Applicant. *See* Applicant’s claim 1.

Fajkowski fails to teach each and every non-inherent limitation of Applicant’s independent claim 1 and therefore the claim is not anticipated by Fajkowski. *See* MPEP Section 2131. Independent claims 15 and 18 recite similar language to that discussed supra with reference to claim 1 and are likewise in condition for allowance. Thus, because claims 2-8 and 10-14 depend from independent claim 1, claims 16-17 depend from independent claim 15, and claims 19-20 depend from independent claim 18, these claims are not anticipated by Fajkowski for at least the same reasons discussed above. Furthermore, each of these dependent claims recites a unique combination of elements not disclosed or rendered obvious by Fajkowski. Accordingly, the Applicant respectfully requests that Examiner’s anticipation rejection be withdrawn.

Applicant also respectfully asserts that Fajkowski does not anticipate Applicant’s claims 1-8 and 10-20 for at least another reason. As disclosed, Fajkowski uses smart card technology to capture, store, deliver and retrieve coupon data and cash register transaction data. The system of Fajkowski describes the installation of hardware (e.g., the periphery devices) between the cash register and the consumer which would be cost prohibitive to install. *See* paragraphs [0010]-[0011]. These periphery devices transfer coupon data stored in the coupon card to the periphery device and cash register transaction data from the cash register to the periphery device. This is in

sharp contrast to the system described in the instant application where no additional in-store, in-the-lane hardware is required to transfer stored coupon data or cash register transaction data.

Rejections under 35 U.S.C. § 103

Claim 9

Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Fajkowski. Claim 9 is a dependent claim of independent claim 1, therefore claim 9 is not rendered obvious by Fajkowski because a prima facie case of obviousness is absent under the framework of the Graham factual inquiries; as discussed supra, there is a difference between the subject matter of independent claim 1 and the disclosure of Fajkowski. Accordingly, the Applicant respectfully requests that Examiner's obviousness rejection be withdrawn.

Conclusion

Applicant has made a bona fide effort to respond to each and every requirement set forth in the Office Action and to further prosecution of the present application. This application is submitted to be in complete condition for allowance and, accordingly, a timely notice of allowance to this effect is earnestly solicited. In the event that any issues remain outstanding, Examiner is invited to contact the undersigned to expedite issuance of this application.

Applicant does not believe any fees are due in connection with filing this paper, other than a fee for a three-month time extension. If, however, any additional fees are necessary as a result of this paper, the Commissioner is hereby authorized to charge any under-payment or credit any over-payment to Deposit Account No. 20-0809.

Respectfully submitted,

THOMPSON HINE LLP

/Gabriel T. Applegate/

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Electronic Patent Application Fee Transmittal

Application Number:	13911175			
Filing Date:	06-Jun-2013			
Title of Invention:	INTELLIGENT CLEARING NETWORK			
First Named Inventor/Applicant Name:	Richard B. Thibedeau			
Filer:	Gabriel Thomas Applegate			
Attorney Docket Number:	091480-00002USCP3			
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension - 3 months with \$0 paid	2253	1	700	700
Miscellaneous:				
Total in USD (\$)				700

Electronic Acknowledgement Receipt

EFS ID:	27811486
Application Number:	13911175
International Application Number:	
Confirmation Number:	1021
Title of Invention:	INTELLIGENT CLEARING NETWORK
First Named Inventor/Applicant Name:	Richard B. Thibedeau
Customer Number:	27805
Filer:	Gabriel Thomas Applegate
Filer Authorized By:	
Attorney Docket Number:	091480-00002USCP3
Receipt Date:	15-DEC-2016
Filing Date:	06-JUN-2013
Time Stamp:	17:42:59
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$ 700
RAM confirmation Number	121616INTEFSW17454700
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		091480_00002USCP3_Response_2016-06-15.pdf	132312	yes	14
			616ddc1cbfff604eed6b1d88eec46db35c0c2d6d		
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Amendment/Req. Reconsideration-After Non-Final Reject		1	1	
	Claims		2	7	
	Applicant Arguments/Remarks Made in an Amendment		8	14	
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30875	no	2
			dd54656c1f47846943f871b397fa3fa8f327187b		
Warnings:					
Information:					
Total Files Size (in bytes):			163187		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 13/911,175	Filing Date 06/06/2013	☐ To be Mailed
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ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO**APPLICATION AS FILED – PART I**

(Column 1)

(Column 2)

FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X \$ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X \$ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

(Column 1)

(Column 2)

(Column 3)

AMENDMENT	12/15/2016	CLAIMS REMAINING AFTER AMENDMENT	MINUS	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	X \$40 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0	X \$210 =	0
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	0

(Column 1)

(Column 2)

(Column 3)

AMENDMENT	CLAIMS REMAINING AFTER AMENDMENT	MINUS	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	*	Minus	**	X \$ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	X \$ =	
	☐ Application Size Fee (37 CFR 1.16(s))					
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					
					TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

SLIE
DEBORAH PORTER

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/911,175	06/06/2013	Richard B. Thibedeau	091480-00002USCP3	1021

27805 7590 02/28/2017
THOMPSON HINE L.L.P.
10050 Innovation Drive
Suite 400
DAYTON, OH 45342-4934

EXAMINER

VAN BRAMER, JOHN W

ART UNIT	PAPER NUMBER
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3622

NOTIFICATION DATE	DELIVERY MODE
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02/28/2017

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):

ipdocket@thompsonhine.com

Office Action Summary	Application No. 13/911,175	Applicant(s) THIBEDEAU ET AL.	
	Examiner JOHN VAN BRAMER	Art Unit 3622	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 December 15, 2016.
☐ 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) 1-20 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) 1-20 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) | 3) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)
Paper No(s)/Mail Date _____ | 4) ☐ Other: _____ |

DETAILED ACTION

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

Response to Amendment

2. The amendment filed on December 15, 2016 cancelled no claims. Claims 1, 2, 5, 6, and 15-20 were amended and no new claims were added. Thus, the currently pending claims addressed below are claims 1-20.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more. Claim(s) 1-20 is/are directed to an abstract idea. The claim(s) does/do not include additional elements that are sufficient to amount to significantly more than the judicial exception. The applicant has invented a system for validating coupons at a point of sale. The examiner has identified that the claims are directed towards a method, an apparatus, and a product which is/are a statutory class of invention. Next, the examiner analyzed the claims to determine whether they are directed to a judicial exception. The examiner determined that the claims are directed

to an abstract idea. The identified abstract idea at the heart of the claims is validating coupons at a point of sale device. The limitations that set forth the abstract idea are:

1. Receiving data elements for validation and redemption during a transaction, the data elements including product code information of an item to be purchased and coupon information, where the coupon information is received which is considered “comparing new and stored information and using rules to identify options” (e.g. SmartGene) which is “An Idea "Of Itself"” and as such is an abstract idea.
2. Validating at least one coupon based at least in part on the product code information and the coupon information which is considered “comparing new and stored information and using rules to identify options” (e.g. SmartGene) which is “An Idea "Of Itself"” and as such is an abstract idea.
3. In response to validating the at least one coupon, sending a coupon message that indicates whether the at least one coupon has been validated for redemption in the transaction which is considered “using categories to organize, store and transmit information” (e.g. Cyberfone) which is “An Idea "Of Itself"” and as such is an abstract idea.

As such, these steps are similar to the concepts identified as abstract ideas by the courts. The claim elements in addition to the abstract idea are “a processor”; “a memory; “computer program code”; “a coupon processing server”; “a point-of-sale device” and “at the point-of-sale device located at a first location, where the server is at a second location that is remote from the first location”. The processor, memory,

code, server, and point-of-sale device are recited at a high level of generality, and comprise general purpose computers performing the generic computer functions of receiving data elements, validating at least one coupon, and sending a coupon message. Generic computers performing generic computer functions, alone, do not amount to significantly more than the abstract idea. Considered individually, the steps of receiving data elements, validating at least one coupon, and sending a coupon message further describe the abstract idea but do not make it less abstract. Next, the examiner considered whether the ordered combination of steps in the claim recited an abstraction (an idea having no particular concrete or tangible form). Aside from the recitation of a general purpose computer, the steps of receiving data elements, validating at least one coupon, and sending a coupon message all describe an abstract idea, devoid of a concrete or tangible application. The claims merely recite the performance of an abstract idea using a computer and/or a computer network. The examiner next determined whether the claims do significantly more than simply describe the abstract method and whether the limitations of the claims contain an "inventive concept" to "transform" the claimed abstract idea into patent-eligible subject matter and concluded that the limitations do not transform the abstract idea that they recite into patent-eligible subject matter because the claims simply instruct the practitioner to implement the abstract idea with "routine, conventional activities" using general purpose computing devices which is insufficient to transform the patent-ineligible abstract idea into patent-eligible subject matter. Considered as a whole, the recited steps merely organize

the abstract idea into a stepwise description of a process used to perform the abstract idea and amount to no more than validating coupons at a point of sale device. The claim merely instructs the practitioner to implement the concept of validating coupons at a point of sale device with routine, conventional activity specified at a high level of generality in a particular technological environment. When view either individual or as an order combination, the claim as a whole does not add significantly more to the abstract idea of validating coupons at a point of sale device. As such, the claim is not patent eligible. The claims are similar to the Ultramercial, and Planet Bingo cases in which the claims merely describe management, organization, and/or performance of an abstract idea using a general purpose computer in communication with a network. The dependent claims have been analyzed in the same fashion and do not cure the deficiencies of the independent claims from which they depend. As such, the dependent claims are rejected by virtue of dependency.

Claim Rejections - 35 USC § 112

5. The applicant's arguments filed on December 15, 2016, have overcome the rejection of Claim 9 under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The applicant has clarified that they are referring to the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) which is a federal assistance program of the Food and

Nutrition Services of the United States Department of Agriculture. The examiner agrees that one of ordinary skill in the art would realize that a retailer would routinely processes such coupon vouchers in a POS system.

Claim Rejections - 35 USC § 102

6. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

7. The following is a quotation of the appropriate paragraphs of pre-AIA 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-20 are rejected under pre-AIA 35 U.S.C. 102(e) as being anticipated by Fajkowski (PGPUB: US 2005/0230473).

Claims 1, 15 and 18: Fajkowski discloses a method, an apparatus, and a computer readable medium tangibly encoded with a computer program executable by a processor to perform actions comprising:

- a. A processor. (Paragraphs [0009]; [0010]; [0014] through [0016]; [0063]; and [0080]-[0085])
- b. A memory including computer program code, the memory and computer program code configured to, with the processor, (Paragraphs [0009]; [0010]; [0014] through [0016]; [0063]; and [0080]-[0085]) cause the apparatus to perform at least the following:
 1. Receiving, at a coupon processing server, data elements from a networked point-of-sale device for validation and redemption during a transaction, the data elements including product code information of an item to be purchased and coupon information, where the coupon information is received at the point-of-sale device located at a first location, and where the coupon processing server is at a second location that is remote from the first location.
(Fig. 1; Fig 10; Paragraphs [0009] through [0012]; [0042]; [0048] through [0050] [0065] through [0069]; [0085]; [0087] through [0090] and [0095])
 2. Validating, by the coupon processing server, at least one coupon based at least in part on the product code information and the coupon information. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

3. In response to validating the at least one coupon, sending, by the coupon processing server, a coupon message that indicates whether the at least one coupon has been validated for redemption in the transaction. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050]; [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claim 2: Fajkowski discloses the method of claim 1, where the coupon information comprises a serial number that uniquely identifies an instance of the coupon, where the at least one coupon comprises the at least one instance of the coupon. (Figures 6, 7a, 7b, 8, and 9; Paragraphs [0010]; [0062] through [0071]; and [0106])

Claim 3. Fajkowski discloses the method of claim 2, where validating the at least one coupon comprises verifying that the serial number is loaded in a database of authorized coupon serial numbers. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claim 4: Fajkowski discloses the method of claim 1, where validating the at least one coupon comprises verifying, for each of the at least one coupon, whether the coupon is not loaded in a database of unacceptable coupons. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claims 5, 16 and 19: Fajkowski discloses the method of claim 1, the apparatus of claim 15, and the computer readable medium of claim 18, further comprising: receiving, by the coupon processing server, an indication that an instance of a coupon is printed, where the digital coupon comprises a serial number that uniquely identifies the instance of the coupon; and in response to receiving the indication that the instance of the coupon is printed, adding the serial number to a database of authorized coupon serial numbers. (Paragraphs [0014] through [0016]; [0049] through [0052]; [0065] through [0067]; [0070] through [0073])

Claim 6: Fajkowski discloses the method of claim 1, where the coupon information comprises a master coupon information, where the method further comprises, in response to receiving the master coupon information, identifying at least two coupons, where the at least two coupons are associated with the master coupon. (Paragraphs [0088] through [0091])

Claim 7: Fajkowski discloses the method of claim 1, further comprising:

- a. Adding first coupon details for a first coupon to a coupon database. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

- b. Receiving second coupon details for the first coupon. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])
- c. In response to receiving the second coupon details for the first coupon, updating the coupon database with the second coupon details, where receiving the data elements occurs after updating the coupon database, where the at least one coupon comprises the first coupon and where the coupon message further comprises at least a portion of the second coupon details. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claim 8: Fajkowski discloses the method of claim 1, further comprising:

- a. Receiving redemption information for the transaction indicating that the at least one coupon has been redeemed. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])
- b. In response to receiving the redemption information, storing the redemption information in a redemption database. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])
- c. Generating a redemption data report based on the redemption information database regarding at least one transaction, where the redemption data report

comprises, for each transaction of at least one transaction, information identifying an item purchased redeeming at least one coupon during the transaction. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claim 10: Fajkowski discloses the method of claim 1, where the point-of-sale device comprises a computer performing an on-line purchase. (Fig. 1; Fig 10; Paragraphs [0009] through [0015]; [0017]; [0042] through [0045]; [0047] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claim 11: Fajkowski discloses the method of claim 1, where validating the at least one coupon is further based on a zone assigned to the point-of-sale device. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claims 12, 17, and 20: Fajkowski discloses the method of claim 1, the apparatus of claim 15, and the computer readable medium of claim 18 further comprising:

- a. Receiving redemption information for the transaction indicating that the at least one coupon has been redeemed. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

- b. Analyzing the redemption information in order to detect an alert event. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])
- c. In response to detecting an alert event, generating a notification that the alert event occurred. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claim 13: Fajkowski discloses the method of claim 12, where generating the notification comprises sending a message to the first location. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claim 14: Fajkowski discloses the method of claim 12, where an alert event is one of: when redemption of a coupon which was indicated as invalid is performed; when the data elements include an account number for customer in a given customer class; when redemption of a coupon at a price that is not authorized is performed; when a threshold number of redemptions by a specific clerk of coupons at prices that are not authorized is reach; when redemption of a coupon at a price sufficiently different from a price that is authorized is performed; when an average amount of time between transactions by a specific clerk exceeds a threshold time; and when a threshold number of manual inputs of coupon information indicates a potential point-

of sale device failure. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017];
[0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083];
[0087] through [0090])

Claim Rejections - 35 USC § 103

9. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

10. 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.

11. Claim 9 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Fajkowski (PGPUB: US 2005/0230473).

Claim 9: Fajkowski discloses the method of claim 1, where the coupon is voucher (Paragraphs [0009] through [0012]; [0042]; [0048] through [0050] [0065] through [0069]; [0076] through [0078]; [0085]; [0087] through [0090] and [0095]). While Fajkowski does not specifically state that the voucher is a Women Infants and

Children program voucher, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included Women, Infant, and Children program vouchers in the invention of Fajkowski. The rationale for doing so is that there are a limited number of predictable types of coupons and a Women, Infant, and Children program voucher is one such predictable type of coupon.

Response to Arguments

12. Applicant's arguments filed December 15, 2016, have been fully considered but they are not persuasive.

a. The applicant argues that the claims are not directed towards an abstract idea because the claimed embodiment is directed to an invention that amounts to an improvement to POS system computing technology because the claimed invention represents a software-based invention that improves the performance of the computer system itself. The examiner disagrees. The applicant's claims are merely directed towards general purpose computers that are networked in a standard fashion and perform general purpose computing steps. As such, they are a conventional and generic arrangement of computing components and do not in any way improve the computer system itself. The applicant further asserts that performing coupon processing at a remote location somehow provides an improvement to the slow, labor intensive process of validating, clearing, and financial settlement. The examiner is not convinced that coupon processing remotely at a second location would be any faster or less labor intensive than

coupon processing at a first location and the applicant's specification does not explain how performing such an act remotely would be faster or less labor intensive.

b. The applicant appears to make a convoluted argument directed towards the system components and the abstract idea identified as disclosing the receiving and validating steps. The examiner notes that the system components have not been identified as an abstract idea but instead have been identified as being recited at a high level of generality, and comprise general purpose computers performing the generic computer functions. These general purpose computers are performing the abstract idea of receiving data elements, validating at least one coupon, and sending a coupon message.

c. The applicant argues that the claims do not preempt all applications of the abstract idea. The examiner notes that preemption is not a stand-alone test for eligibility. Questions of preemption are inherent in and resolved by the two-part framework from *Alice Corp. and Mayo*, as explained by the Federal Circuit in *OIP* and *Sequenom*. Moreover, while a preemptive claim may be ineligible, the absence of complete preemption does not demonstrate that a claim is eligible.

d. The applicant argues that the claims are similar to *Bascom*. The examiner can find no similarity between the instant claims and the claims in *Bascom*. The instant claims perform no filtering customized for the individual. The claims merely recite receiving and sending which as per the July 2015 Update: Subject Matter Eligibility, The courts have recognized the following computer functions to

be well-understood, routine, and conventional: performing repetitive calculations; receiving, processing, and storing data; electronically scanning or extracting data from a physical document; electronic record keeping; automating metal tasks; and receiving or transmitting data over a network. The only additional step is the validating step which is considered "comparing new and stored information and using rules to identify options" (e.g. SmartGene) which is "An Idea "Of Itself"" and as such is an abstract idea or alternatively considered "obtaining and comparing intangible data" (e.g. Cybersource) which is "An Idea "Of Itself"" and as such is an abstract idea.

e. In regards to the prior art rejection, the applicants argue that Fajkowski does not teach a networked point-of-sale device located at a first location and a coupon processing server located at a second location that is remote from the first location. The examiner disagrees. Fajkowski clearly discloses that the coupon processing server can be remote from the first location in at least paragraphs [0012] and [0085] where it is disclosed that the clearinghouse (coupon processing server) is at a second location that is remote from the first location. As such, the limitations of the claims as currently written have been met.

f. The applicant argues that Fajkowski discloses a periphery device that is not found in the instant invention. The examiner can find no indication in the claims or the applicant's specification that preclude the inclusion of a periphery device or that preclude a periphery device from being part of a networked point-

of-sale device. As such, the limitations of the claims as currently written have been met.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). 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 date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN VAN BRAMER whose telephone number is (571)272-8198. The examiner can normally be reached on 6am - 4pm Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Stamber can be reached on (571) 272-6724. 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.

/JOHN VAN BRAMER/
John Van Bramer
Primary Examiner, Art Unit 3622

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventors: Richard B. Thibedeau et al.
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RESPONSE

In reply to the Office Action dated February 28, 2017, please consider the Remarks that begin on page 2 of this paper.

REMARKS

This paper replies to the final Office Action dated June 15, 2016. Claims 1-20 are pending. In view of the following remarks, Applicant respectfully submits that this Application is in complete condition for allowance and requests reconsideration of the Application in this regard.

Rejections under 35 U.S.C. § 101

Claims 1-20 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. In particular, Examiner asserts that the claims are directed to the abstract ideas of “comparing new and stored information and using rules to identify options” and “using categories to organize, store and transmit information”, without significantly more. *See* Office Action, pp. 2-5. Applicant respectfully traverses the rejection.

As the Court wrote in *Alice*: “At some level, “all inventions... embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas” (internal citations omitted). Thus, an invention is not rendered ineligible for patent simply because it involves an abstract concept. *See Diamond v. Diehr*, 450 U. S. 175, 187 (1981). “[A]pplication[s]” of such concepts “to a new and useful end,” we have said, remain eligible for patent protection. *Gottschalk v. Benson*, 409 U. S. 63, 67 (1972).” Furthermore, “[a]n inventive concept can be found in the non-conventional and non-generic arrangement of the additional element,” including additional elements consisting of “generic computer, network, and Internet components.” *See* November 2, 2016, Memo to Patent Examining Corps. Regarding “Recent Subject Matter Eligibility” discussing *Bascom Global Internet Services, Inc. v. AT&T Mobility LLC*, (Fed. Cir. June 27, 2016) and *McRO, Inc. v. Bandai Namco Games America Inc.*, No. 2015-1080 (Fed. Cir. Sept. 13, 2016). “[C]ourts ‘must be careful to avoid oversimplifying the claims’ by looking at them generally and failing to account for the specific requirements of the claims.... Whether at step one or step two of the Alice test, in determining the patentability of a method, a court must look to the claims as an ordered combination, without ignoring the requirements of the individual steps. The specific, claimed features of [the] rules allow for the improvement realized by the invention.” *McRO* slip op. at 21. (first quoting *In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016); and then citing *Diamond v. Diehr*, 450 U.S. 175 (1981). at 189 n.12).

A. The claims are not directed to an abstract idea under Step 2A of the two-part test to determine eligible subject matter.

The Federal Circuit has explained that when considering whether a claim is “directed to” an abstract idea, it is improper to “simply ask whether the claims *involve* a patent-ineligible concept, because essentially every routinely patent-eligible claim... *involves* a law of nature and/or natural phenomenon.” See *Enfish, LLC v. Microsoft Corp.*, No. 2015-1244, slip op. at 10 (Fed. Cir. May 12, 2016) (citing *Mayo Collaborative Servs. v. Prometheus Laboratories, Inc.*, 132 S. Ct. 1289, 1293 (2012)). “Rather, the ‘directed to’ inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether ‘their character as a whole is directed to excluded subject matter.’” *Id.* (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)). The USPTO’s 2016 Memorandum on Subject Matter Eligibility (2016 Memorandum) further expands on the abstract idea inquiry. In particular, the 2016 Memorandum states that when making a § 101 rejection based on the claims being directed to an abstract idea, “Examiners should... ensure that the rejection is reasonably tied to the facts of [a] case and avoid relying upon language taken out of context,” and “not go beyond those concepts that are similar to what the courts have identified as abstract ideas.” See 2016 Memorandum, pg. 3. However, Examiner makes the overly-simplistic assertion that Applicant’s claims include the following limitations that “set forth the abstract idea[s]” of “comparing new and stored information and using rules to identify options (e.g. SmartGene)” and “using categories to organize, store and transmit information” (e.g. Cyberfone):

(1) “Receiving data elements for validation and redemption during a transaction, the data elements including product code information of an item to be purchased and coupon information, where the coupon information is received”;

(2) “Validating at least one coupon based at least in part on the product code information and the coupon information”; and

(3) “In response to validating the at least one coupon, sending a coupon message that indicates whether the at least one coupon has been validated for redemption in the transaction”. See Office Action. at p. 3.

Furthermore, Examiner states the claims are “similar” to the “*Ultramercial*, and *Planet Bingo* cases in which the claims merely describe management, organization, and/or performance of an abstract idea using a general purpose computer in communication with a network”, without any further discussion regarding the facts of the cases as they pertain to Applicant’s claims and specification. *Id.* at p. 5. Also, none of the cases listed by Examiner involve the concept of, as stated by Examiner, “validating coupons at a point of sale device”. *Id.* at p. 2.

A review of the USPTO’s chart illustrates that Applicant’s claimed method and system for receipt and validation, by a coupon processing server, of product code information and coupon information from a differently-located, networked point-of-sale device, including messaging by the coupon processing server regarding validation status, as set forth in the entirety of Applicant’s claim 1, is not a concept reasonably tied to the facts of a Federal Circuit or a Supreme Court case in which claims were found to be directed to an abstract idea. Moreover, with no statement as to how the facts of the cited cases uniquely match the facts at issue, Examiner contends that the claims are similar to the concepts found ineligible in *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709 (Fed. Cir. 2014) and *Planet Bingo, LLC v. VKGS LLC*, 576 Fed. Appx. 1005 (Fed. Cir. 2014). Thus, Examiner fails to show that the rejection of the claims is reasonably tied to the facts of a Federal Circuit or a Supreme Court case in which claims were found to be directed to an abstract idea.

The background section of Applicant’s specification explains that coupon validation historically included distribution of coupons to consumers through mail by the local postal system, in newspapers, and manual distribution at retail stores. at paragraph [0003]. The retail stores would accept the coupons when a consumer would make a purchase of a manufacturer’s product and the retail store would then forward the physical coupons for coupon processing. *Id.* at paragraph [0004]. Typically, this manual process of validating coupons took weeks or months and the was plagued with inaccuracies and inefficiencies, including fraudulent coupons, coupons redeemed without a purchase, manual handling, long validation cycle times, and identification of expired coupons and fraudulent coupons long after the consumer received the coupon’s benefit. *Id.* at paragraphs [0032]-[0038].

Moreover, prior art coupon validation systems or methods could only be applied at a single store location. For example, the prior art coupon systems where all the components are located at the retail store require the digital coupons (*e.g.*, the coupon definitions) to be pre-

loaded in every single store location and to be validated locally at the retail store location. *See* U.S. Patent No. 7,240,843 for a prior art example. In this arrangement, the local system does not prevent fraud from occurring because coupon activity at each local retail store location is not monitored by a central server, *e.g.*, an in-store system does not include central monitoring from a remote server that can monitor coupon transactions (volume/traffic) to prevent store personnel and/or others from fraudulently redeeming coupons for personnel gain, to meet or exceed sales goals, and the like. *See* Specification, paragraph [0039].

The present invention solves a technical problem by alleviating these problems and improving the functionality of computer systems when redeeming and validating coupons. Claims 1-20 set forth improved systems and methods that include, at a minimum, a coupon processing server and a remotely-located networked point-of-sale device. The remote server provides significant improvements over the prior art. For example, a remote coupon processing server may monitor in real time the redeemed coupon volume/traffic to prevent fraud by retail store personnel. *Id.* Further, the remote server eliminates the requirement of defining digital coupons in every store location, instead, the digital coupons can be defined, edited, and/or corrected in real time in a centralized database at the remote processing server so that each retail store has instant access, *e.g.*, corrected coupon coding errors can be instantly accessed by each retail store that is connected to the remote coupon processing server. *See* Specification, paragraph [0038].

Unlike the pending claims, the claim at issue in *Ultramercial*, was directed to a method for distributing copyrighted media over the Internet to consumers in exchange for them viewing an advertisement. Examiner states that the pending claims similarly describe “management” and “organization”, but Examiner’s conclusion on this point is incorrect and is unsupported by the facts. Notably, the claims of the present application are not directed to advertising, marketing and sales activities. Rather, the claims are directed to a particular method of using a specific machine (i.e., a coupon processing server is used to store and analyze redeemed coupon information to determine validity of coupon redemption). Because the present claims are not directed to a method of distributing data or other content to consumers over the Internet, the Examiner’s reliance on *Ultramercial* is therefore incorrect and does not support the 101 rejection.

Examiner also asserts a similarity of the present claims to the claims at issue in the *Planet Bingo* decision, which were directed to a method of running a bingo game over a computer network and only recited “the generic functions of storing, retrieving and verifying a chosen set of bingo numbers against a winning set of bingo numbers.” See *Planet Bingo* finding the claimed limitations “‘a computer with a central processing unit,’ ‘a memory,’ ‘an input and output terminal,’ ‘a printer,’ in some cases ‘a video screen,’ and ‘a program...enabling’ the steps of managing a game of bingo” to be nothing more than “generic computer implementation of the covered abstract idea” and the fact that the invention included “complex computer code with three distinct subparts” was insufficient to add an inventive concept, because the “accounting program,” “ticket program” and “verification program” identified in plaintiff’s motion briefs did not appear in the patent claims. *Id.* at 147-150. The USPTO’s 2016 Memorandum on Recent Subject Matter Eligibility Decisions dated November 2, 2016 instructs examiners to “avoid relying upon or citing non-precedential decisions [e.g., *Planet Bingo*] unless the facts of the application under examination uniquely match the facts at issue in the non-precedential decision”. See November 2016 Memorandum. at pg. 4. Thus, the claims in the present case should not be compared to *Planet Bingo*, as *Planet Bingo*’s claims do not uniquely match the claims at issue; i.e. the present claims are not directed to a method of running a game over a computer network, but rather set forth a method and system for redeeming and validating coupons across a network, including non-generic functions such as determining, by a remote coupon processing server, whether a coupon redemption was valid based on received redeemed coupon related information, from a retail server in a retail business, and storing, by the coupon processing server, the redeemed coupon related information in a redeemed coupon database. See Applicant’s claim 38. For at least these reasons, the present claims are not similar to the “performance of an abstract idea using a general purpose computer in communication with a network” as at issue in *Planet Bingo*. See Office Action, at pg. 9.

Because the subject matter recited by the present claims is not similar to the concepts identified as abstract ideas by cited cases, nor any other concept identified by the courts as abstract, the claims are not directed to ineligible subject matter under step 2A of the test provided by the 2014 Interim Eligibility Guidance. For at least this reason, Applicant requests that the rejection be withdrawn.

B. The claims amount to significantly more than the alleged abstract idea(s) under Step 2B of the two-part test to determine eligible subject matter.

Even if the claims at issue may be considered to be directed to a patent-ineligible abstract idea (which is not admitted), the claims include additional elements that transform the nature of the claims into a patent-eligible application of the abstract idea. In particular, the claims apply the judicial exception with, or by use of, a particular machine and add specific limitations other than what is well-understood, routine and conventional in the field, or add unconventional steps that confine the claim to a particular useful application. *See* 2014 Interim Guidance on patent Subject Matter Eligibility, Dec. 16, 2014, at 21-24. In analyzing claims under Step 2B, examiners are to "consider the additional elements in combination, as well as individually, when determining whether a claim as a whole amounts to significantly more, as this may be found in the nonconventional and non-generic arrangement of known, conventional elements." *See* November 2, 2016, Memo to Patent Examining Corps. Regarding "Recent Subject Matter Eligibility."

Contrary to Examiner's assertion that the claims are directed to "generic computers performing generic computer functions", at minimum, the claims are directed to a particular machine that includes at least a coupon processing server, a retail server, and a point-of-sale device. Further, the coupon processing server is configured to validate and redeem coupon information received from a remotely located point-of-sale device. Moreover, using a coupon processing server to validate and redeem data elements, including product code information of an item to be purchased and coupon information, and in response to validating the information, sending a validation message, offers a meaningful limitation beyond generally linking 'the use of the [method] to a particular technological environment.'" *See Alice* at 2360. Therefore, the claims are not directed to a patent ineligible combination of generic computer components, but rather to a particular set of computer components listed in the claims arranged for carrying out the listed complex computing functions. For at least this reason, the claims amount to significantly more than the alleged abstract idea and Applicant requests that the rejection be withdrawn.

Furthermore, the instant claims are similar to the claims found to be patent eligible by the Federal Circuit in *BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*, (Fed. Cir. June 27, 2016). One such claim from *BASCOM* includes an ISP server that receives a request to access a website, associates the request with a particular user, and identifies the requested website. A filtering tool then applies the filtering mechanism associated with the particular user to the requested website to determine whether the user associated with that request is allowed access to the website. *Id.* In finding the claim recited patent eligible subject matter because the specific arrangement of features in the claim improved a technological process, the Federal Circuit stated, “an inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces.” *Id.* at 15.

Similar to the claims in *BASCOM*, the present claims include a non-conventional and non-generic arrangement of known, conventional pieces that improves a technological process. In particular, the present claims provide a “real time, convenient way for validating and processing paper coupons quickly, eliminating potential fraud, and providing an auditable and comprehensive financial settlement process,” eliminating “the need for manually counting and validating each paper coupon redeemed.” *See* Specification, paragraph [0005]. In order to provide this technological improvement, Applicant’s claims include a coupon processing server that receives data elements including product code information of an item to be purchased and coupon information (analogous to *BASCOM*’s request to access a website at the ISP server), determines whether to validate and/or redeem the coupon (analogous to *BASCOM*’s association of the request to a particular user and identification of the requested website), and in response to validating the coupon, sends a coupon message that indicates whether the at least one coupon has been validated (analogous to *BASCOM*’s filtering tool that determines whether the user associated with that request is allowed access to the website). Just as *BASCOM*’s claimed architecture uses known, conventional pieces to provide an unconventional technical solution to a specific technical problem, Applicant’s claimed architecture provides an unconventional technical solution to the problem of coupon validation by incorporating the ICN server and eliminating the conventional practice of retailers contacting each manufacturer individually in order to redeem a given manufacturer’s coupons. *See* paragraph [0004] of Applicant’s specification. As such, because the claims in the instant case are similar to those in *Bascom*, Applicant asserts that like the claims in *Bascom*, the instant claims are patent eligible.

For at least the above reasons, Applicant's claims include significantly more than the alleged abstract idea because they present a non-conventional and non-generic arrangement of what may be otherwise known, conventional pieces. Accordingly, Applicant respectfully requests that the rejection of claims 37-58 under 35 U.S.C. § 101 be withdrawn.

Rejections under 35 U.S.C. § 102

Claims 1-20

Claims 1-20 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Pub. No. 2005/0230473 to Fajkowski (hereinafter "Fajkowski"). Applicant respectfully traverses the rejection.

Claim 1 recites, "receiving, at a coupon processing server, data elements from a networked point-of-sale device for validation and redemption during a transaction [...] where the coupon information is received at the point-of-sale device located at a first location and where the coupon processing server is at a second location that is remote from the first location."

On page 16 of the Office Action, Examiner equates the "clearinghouse" of Fajkowski to Applicant's claimed "coupon processing server", stating, "Fajkowski clearly discloses that the coupon processing server can be remote from the first location in at least paragraphs [0012] and [0085] where it is disclosed that the clearinghouse (coupon processing server) is at a second location that is remote from the first location." Applicant notes paragraph [0012] of Fajkowski specifically states the disclosed "clearinghouse...will receive information on *redeemed coupons* from the servers of all the retailers participating in the system" (emphasis added) and paragraph [0085] discloses that periphery devices may communicate with the clearinghouse directly or in conjunction with a local server; neither reference makes any disclosure that the "clearinghouse" validates coupons for redemption. Thus, because the "clearinghouse" of Fajkowski receives information regarding coupons that have already been redeemed at the stores, Fajkowski does not disclose "receiving, at a coupon processing server, data elements from a networked point-of-sale device for validation and redemption during a transaction, the data elements including product code information of an item to be purchased and coupon information, where the coupon information is received at the point-of-sale device located at a first location and where the coupon processing server is at a second location that is remote from the first location". *See* Applicant's claim 1.

Fajkowski fails to teach each and every non-inherent limitation of Applicant's independent claim 1 and therefore the claim is not anticipated by Fajkowski. *See* MPEP Section 2131. Independent claims 15 and 18 recite similar language to that discussed supra with reference to claim 1 and are likewise in condition for allowance. Thus, because claims 2-8 and 10-14 depend from independent claim 1, claims 16-17 depend from independent claim 15, and claims 19-20 depend from independent claim 18, these claims are not anticipated by Fajkowski for at least the same reasons discussed above. Furthermore, each of these dependent claims recites a unique combination of elements not disclosed or rendered obvious by Fajkowski. Accordingly, the Applicant respectfully requests that Examiner's anticipation rejection be withdrawn.

Rejections under 35 U.S.C. § 103

Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Fajkowski. Claim 9 is a dependent claim of independent claim 1, therefore claim 9 is not rendered obvious by Fajkowski because a prima facie case of obviousness is absent under the framework of the Graham factual inquiries; as discussed supra, there is a difference between the subject matter of independent claim 1 and the disclosure of Fajkowski. Accordingly, the Applicant respectfully requests that Examiner's obviousness rejection be withdrawn.

Conclusion

Applicant has made a bona fide effort to respond to each and every requirement set forth in the Office Action and to further prosecution of the present application. This application is submitted to be in complete condition for allowance and, accordingly, a timely notice of allowance to this effect is earnestly solicited. In the event that any issues remain outstanding, Examiner is invited to contact the undersigned to expedite issuance of this application.

Applicant does not believe any fees are due in connection with filing this paper. If, however, any additional fees are necessary as a result of this paper, the Commissioner is hereby authorized to charge any under-payment or credit any over-payment to Deposit Account No. 20-0809.

Respectfully submitted,

THOMPSON HINE LLP

/Gabriel T. Applegate/

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Phone: 513-352-6552

Electronic Acknowledgement Receipt

EFS ID:	29326361
Application Number:	13911175
International Application Number:	
Confirmation Number:	1021
Title of Invention:	INTELLIGENT CLEARING NETWORK
First Named Inventor/Applicant Name:	Richard B. Thibedeau
Customer Number:	27805
Filer:	Gabriel Thomas Applegate/Angela Malik
Filer Authorized By:	Gabriel Thomas Applegate
Attorney Docket Number:	091480-00002USCP3
Receipt Date:	26-MAY-2017
Filing Date:	06-JUN-2013
Time Stamp:	15:01:58
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Response After Final Action	094180_13911175_Response_2017-02-28.pdf	130102 b619775a2689f53a6e0ad3efcd8bc1c01ceb1569	no	11

Warnings:

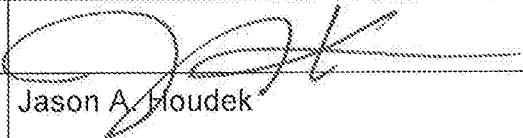
Information:	
Total Files Size (in bytes):	130102
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.	

TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5, unless the application number and filing date are identified in the Power of Attorney by Applicant form. If neither form PTO/AIA/82A nor form PTO/AIA/82B identifies the application to which the Power of Attorney is directed, the Power of Attorney will not be recognized in the application.

Application Number	13/911,175
Filing Date	June 6, 2013
First Named Inventor	Richard B. Thibedeau
Title	Intelligent Clearing Network
Art Unit	3622
Examiner Name	John W. Van Bramer
Attorney Docket Number	33101-PN006 (formerly 091480-00002USCP3)

SIGNATURE of Applicant or Patent Practitioner

Signature		Date (Optional)	June 14, 2017
Name	Jason A. Houdek	Registration Number	54620
Title (if Applicant is a juristic entity)			
Applicant Name (if Applicant is a juristic entity)			

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.



*Total of 2 forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number	Filing Date

(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)

- ☒ I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above:
- OR**
- ☐ I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:

- ☒ The address associated with the above-mentioned Customer Number

OR

- ☐ The address associated with Customer Number:

OR

- ☐ Firm or Individual Name

Address

City

State

Zip

Country

Telephone

Email

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

INTELLIGENT CLEARING NETWORK, INC.

- ☐ Inventor or Joint Inventor (title not required below)
- ☐ Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)
- ☒ Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)
- ☐ Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

Signature

Date (Optional)

Name

Gary W. Oakley

Title

Chief Executive Officer

NOTE: Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

☐ Total of forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Electronic Acknowledgement Receipt

EFS ID:	29492376
Application Number:	13911175
International Application Number:	
Confirmation Number:	1021
Title of Invention:	INTELLIGENT CLEARING NETWORK
First Named Inventor/Applicant Name:	Richard B. Thibedeau
Customer Number:	27805
Filer:	Douglas Alan Collier/Caroline Wilson
Filer Authorized By:	Douglas Alan Collier
Attorney Docket Number:	091480-00002USCP3
Receipt Date:	14-JUN-2017
Filing Date:	06-JUN-2013
Time Stamp:	11:57:55
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Power of Attorney	CWILSON_20170614_POA.pdf	718621	no	2
			64b7aeddac85c162142a4afb9f23db42ac4a38e		

Warnings:

Information:	
Total Files Size (in bytes):	718621
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.	



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Address: COMMISSIONER FOR PATENTS
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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/911,175	06/06/2013	Richard B. Thibedeau	091480-00002USCP3

CONFIRMATION NO. 1021

POWER OF ATTORNEY NOTICE



OC000000092127297

27805
THOMPSON HINE L.L.P.
10050 Innovation Drive
Suite 400
DAYTON, OH 45342-4934

Date Mailed: 06/16/2017

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 06/14/2017.

- The Power of Attorney to you in this application has been revoked by the applicant. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at (571) 272-4000 or (571) 272-4200 or 1-888-786-0101.

/qtran/



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 NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/911,175	06/06/2013	Richard B. Thibedeau	33101-PN006

43218
Taft Stettinius & Hollister LLP
ONE INDIANA SQUARE, SUITE 3500
INDIANAPOLIS, IN 46204-2023

CONFIRMATION NO. 1021
POA ACCEPTANCE LETTER



Date Mailed: 06/16/2017

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 06/14/2017.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at (571) 272-4000 or (571) 272-4200 or 1-888-786-0101.

/qtran/



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.
13/911,175	06/06/2013	Richard B. Thibedeau	33101-PN006	1021

43218 7590 06/20/2017
Taft Stettinius & Hollister LLP
ONE INDIANA SQUARE, SUITE 3500
INDIANAPOLIS, IN 46204-2023

EXAMINER

VAN BRAMER, JOHN W

ART UNIT	PAPER NUMBER
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3622

NOTIFICATION DATE	DELIVERY MODE
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06/20/2017

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):

Taft-IP-Docket@taftlaw.com

Advisory Action Before the Filing of an Appeal Brief	Application No. 13/911,175	Applicant(s) THIBEDEAU ET AL.	
	Examiner JOHN VAN BRAMER	Art Unit 3622	AIA (First Inventor to File) Status No

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

THE REPLY FILED 26 May 2017 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

NO NOTICE OF APPEAL FILED

1. ☒ The reply was filed after a final rejection. No Notice of Appeal has been filed. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance;
 (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114 if this is a utility or plant application. Note that RCEs are not permitted in design applications. The reply must be filed within one of the following time periods:

a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action; or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

c) ☐ A prior Advisory Action was mailed more than 3 months after the mailing date of the final rejection in response to a first after-final reply filed within 2 months of the mailing date of the final rejection. The current period for reply expires _____ months from the mailing date of the prior Advisory Action or SIX MONTHS from the mailing date of the final rejection, whichever is earlier.

Examiner Note: If box 1 is checked, check either box (a), (b) or (c). ONLY CHECK BOX (b) WHEN THIS ADVISORY ACTION IS THE FIRST RESPONSE TO APPLICANT'S FIRST AFTER-FINAL REPLY WHICH WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. ONLY CHECK BOX (c) IN THE LIMITED SITUATION SET FORTH UNDER BOX (c). See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) or (c) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendments filed after a final rejection, but prior to the date of filing a brief, will not be entered because

a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);

b) ☐ They raise the issue of new matter (see NOTE below);

c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☐ For purposes of appeal, the proposed amendment(s): (a) ☐ will not be entered, or (b) ☐ will be entered, and an explanation of how the new or amended claims would be rejected is provided below or appended.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

9. ☐ The affidavit or other evidence filed after final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

10. ☐ The affidavit or other evidence filed after the date of filing the Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

11. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

12. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.

13. ☐ Note the attached Information *Disclosure Statement(s)*. (PTO/SB/08) Paper No(s). _____

14. ☐ Other: _____.

STATUS OF CLAIMS

15. The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: _____.

Claim(s) withdrawn from consideration: _____.

/JOHN VAN BRAMER/ Primary Examiner, Art Unit 3622	
--	--

Continuation of 12. does NOT place the application in condition for allowance because: No amendment to the claims was submitted. The applicant's arguments directed to the 35 USC 101 rejection are not convincing. As clearly indicated in the final rejection the claims are directed to an abstract idea under step 2a. The claims as currently written do not solve the technical problem argued by the applicant as they are directed towards processing coupons from a single location and not processing coupons from a plurality of locations. The claims do not amount to significantly more than an abstract idea. The claim elements in addition to the abstract idea are a processor, memory, computer program code, coupon processing server and point of sale device which are recited at a high level of generality and comprise general purpose computers performing generic computer functions. The claims are not performing customized filtering for each customer by a server remote from an ISP for the purpose of serving websites and as such are not similar to BASCOM. Instead the claims are broad enough to encompass the well known abstract idea of validating coupons on a device other than the POS device itself such as a centralized server in a store attached to each POS device or a central server for a chain of stores attached to a POS device. The process of distributed computing has been in use long before the applicant's invention. In regards to the applicant's argument directed to the 35 USC 102 rejection the examiner disagrees. Fajkowski clearly states in paragraph [0085] that the peripheral device can communicate directly with the remote clearinghouse or a local server. Paragraph [0087] clearly states that the clearinghouse is contacted to identify and validate a rebate applicable to the purchase. Since paragraph [0022] indicates that a coupon is synonymous with an incentive and a rebate is an incentive, Fajkowski is clearly disclosing that data elements from a networked POS are received at the clearinghouse for validation and redemption at least in regards to rebates (coupons). Thus, the limitations of the claims as currently written have been met.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	13911175
	Filing Date	2013-06-06
	First Named Inventor	Thibedeau, Richard B.
	Art Unit	3622
	Examiner Name	VAN BRAMER, JOHN W
	Attorney Docket Number	33101-PN006

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Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	7877288	B1	2017-01-25	Cunningham et al.	

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	1	20070276727		2007-11-29	Thibedeau	
	2	20050230473	A1	2005-10-20	Fajkowski	

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	13911175
Filing Date	2013-06-06
First Named Inventor	Thibedeau, Richard B.
Art Unit	3622
Examiner Name	VAN BRAMER, JOHN W
Attorney Docket Number	33101-PN006

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
	1		

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EXAMINER SIGNATURE

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	13911175
Filing Date	2013-06-06
First Named Inventor	Thibedeau, Richard B.
Art Unit	3622
Examiner Name	VAN BRAMER, JOHN W
Attorney Docket Number	33101-PN006

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☒ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature		Date (YYYY-MM-DD)	
Name/Print	Jason A. Houdek	Registration Number	54620

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Acknowledgement Receipt

EFS ID:	29588142
Application Number:	13911175
International Application Number:	
Confirmation Number:	1021
Title of Invention:	INTELLIGENT CLEARING NETWORK
First Named Inventor/Applicant Name:	Richard B. Thibedeau
Customer Number:	43218
Filer:	Douglas Alan Collier/Caroline Wilson
Filer Authorized By:	Douglas Alan Collier
Attorney Docket Number:	33101-PN006
Receipt Date:	23-JUN-2017
Filing Date:	06-JUN-2013
Time Stamp:	11:19:41
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	2017-06-23IDSForm33101-PN006.pdf	1050042	no	4
			25ed29335dea384ba4b6a0707c6e2e048826f06a		

Warnings:

Information:	
Total Files Size (in bytes):	1050042
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.	

REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL (Submitted Only via EFS-Web)

Application Number	13/911,175	Filing Date	2013-06-06	Docket Number (if applicable)	33101-PN006	Art Unit	3622
First Named Inventor	Richard B. Thibedeau			Examiner Name	John W. Van Bramer		

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.

Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, to any international application that does not comply with the requirements of 35 U.S.C. 371, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV.

SUBMISSION REQUIRED UNDER 37 CFR 1.114

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

☐ Other _____

☒ Enclosed

☒ Amendment/Reply

☐ Information Disclosure Statement (IDS)

☐ Affidavit(s)/ Declaration(s)

☐ Other _____

MISCELLANEOUS

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months _____
(Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other _____

FEES

The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.

☒ The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to
Deposit Account No. 501438

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

☒ Patent Practitioner Signature

☐ Applicant Signature

Signature of Registered U.S. Patent Practitioner			
Signature	/Jason A. Houdek/	Date (YYYY-MM-DD)	2017-07-27
Name	Jason A. Houdek	Registration Number	54620

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re U.S. Patent Application of:	)	Before the Examiner
Richard B. Thibedeau et al.	)	John W. Van Bramer
	)	
Application No.: 13/911,175	)	Group Art Unit: 3622
	)	
Filed: 06/06/2013	)	Attorney Docket. No. 33101-PN006
	)	
INTELLIGENT CLEARING	)	
NETWORK	)	

SUPPLEMENTAL RESPONSE TO FINAL OFFICE ACTION SUBMITTED WITH
REQUEST FOR CONTINUED EXAMINATION

Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Commissioner:

In further response to the final Office Action mailed February 28, 2017, please consider the following. A petition for a two-month extension of time, a request for continued examination and payment of all fees believed to be due is submitted herewith. The Commissioner is authorized to debit additional fees due or credit any overpayment to Deposit Account 501438, but not including the payment of issue fees.

The **Claims Listing** begins on page 2.

The **Remarks** begin on page 7.

Claims Listing

1. (Previously Presented) A method comprising:
 - receiving, at a coupon processing server, data elements from a network point-of-sale device for validation and redemption during a transaction, the data elements including product code information of an item to be purchased and coupon information, where the coupon information is received at the point-of-sale device located at a first location and where the coupon processing server is at a second location that is remote from the first location;
 - validating, by the coupon processing server, at least one coupon based at least in part on the product code information and the coupon information; and
 - in response to validating the at least one coupon, sending, by the coupon processing server, a coupon message that indicates whether the at least one coupon has been validated for redemption in the transaction.
2. (Previously Presented) The method of claim 1, where the coupon information comprises a serial number that uniquely identifies an instance of the coupon, where the at least one coupon comprises the at least one instance of the coupon.
3. (Original) The method of claim 2, where validating the at least one coupon comprises verifying that the serial number is loaded in a database of authorized coupon serial numbers.
4. (Original) The method of claim 1, where validating the at least one coupon comprises verifying, for each of the at least one coupon, whether the coupon is not loaded in a database of unacceptable coupons.
5. (Previously Presented) The method of claim 1, further comprising:
 - receiving, by the coupon processing server, an indication that an instance of a coupon is printed, where the digital coupon comprises a serial number that uniquely identifies the instance of the coupon; and
 - in response to receiving the indication that the instance of the coupon is printed, adding the serial number to a database of authorized coupon serial numbers.
6. (Previously Presented) The method of claim 1, where the coupon information comprises a master coupon information, where the method further comprises, in response to receiving the master coupon

information, identifying at least two coupons, and where the at least two coupons are associated with the master coupon.

7. (Original) The method of claim 1, further comprising:
adding first coupon details for a first coupon to a coupon database;
receiving second coupon details for the first coupon; and
in response to receiving the second coupon details for the first coupon, updating the coupon database with the second coupon details,
where receiving the data elements occurs after updating the coupon database,
where the at least one coupon comprises the first coupon and
where the coupon message further comprises at least a portion of the second coupon details.
8. (Original) The method of claim 1,
further comprising: receiving redemption information for the transaction indicating that the at least one coupon has been redeemed;
in response to receiving the redemption information, storing the redemption information in a redemption database; and
generating a redemption data report based on the redemption information database regarding at least one transaction, where the redemption data report comprises, for each transaction of at least one transaction, information identifying an item purchased redeeming at least one coupon during the transaction.
9. (Original) The method of claim 1, where the coupon is a Women Infants and Children program voucher.
10. (Original) The method of claim 1, where the point-of-sale device comprises a computer performing an on-line purchase.
11. (Original) The method of claim 1, where validating the at least one coupon is further based on a zone assigned to the point-of-sale device.
12. (Original) The method of claim 1, further comprising:
receiving redemption information for the transaction indicating that the at least one coupon has been redeemed;

analyzing the redemption information in order to detect an alert event; and
in response to detecting an alert event, generating a notification that the alert event occurred.

13. (Original) The method of claim 12, where generating the notification comprises sending a message to the first location.

14. (Original) The method of claim 12, where an alert event is one of:

when redemption of a coupon which was indicated as invalid is performed;

when the data elements include an account number for customer in a given customer class;

when redemption of a coupon at a price that is not authorized is performed;

when a threshold number of redemptions by a specific clerk of coupons at prices that are not authorized is reached;

when redemption of a coupon at a price sufficiently different from a price that is authorized is performed;

when an average amount of time between transactions by a specific clerk exceeds a threshold time; and

when a threshold number of manual inputs of coupon information indicates a potential point-of-sale device failure.

15. (Previously Presented) An apparatus, comprising:

a processor;

a memory coupled to the processor, the memory including computer program code, configured to cause the apparatus to

receive, at a coupon processing server, data elements from a networked point-of-sale device for validation and redemption during a transaction, the data elements including product code information of an item to be purchased and coupon information, where the coupon information is received at the point-of-sale device located at a first location and where the coupon processing server is at a second location that is remote from the first location;

validate, by the coupon processing server, at least one coupon based at least in part on the product code information and the coupon information; and

in response to validating the at least one coupon, send, by the coupon processing server, a coupon message that indicates whether the at least one coupon has been validated for redemption in the transaction.

16. (Previously Presented) The apparatus of claim 15, where the computer program code is further configured to:

receive an indication that an instance of a coupon is printed, where the digital coupon comprises a serial number that uniquely identifies the instance of the coupon; and

in response to receiving the indication that the instance of the coupon is printed, to add the serial number to a database of authorized coupon serial numbers.

17. (Previously Presented) The apparatus of claim 15, where the computer program code is further configured to:

receive redemption-information for the transaction indicating that the at least one coupon has been redeemed;

to analyze the redemption information in order to detect an alert event; and

in response to detecting an alert event, to generate a notification that the alert event occurred.

18. (Previously Presented) A product comprising:

a non-transitory computer readable storage medium; and

program code stored on the non-transitory computer readable storage medium and configured upon execution by at least one processor to:

receive, at a coupon processing server, data elements from a networked point-of-sale device for validation and redemption during a transaction, the data elements including product code information of an item to be purchased and coupon information, where the coupon information is received at the point-of-sale device located at a first location and where the coupon processing server is at a second location that is remote from the first location;

validate, by the coupon processing server, at least one coupon based at least in part on the product code information and the coupon information stored in a coupon database; and

in response to validating the at least one coupon, send, by the coupon processing server, a coupon message that indicates whether the at least one coupon has been validated for redemption in the transaction.

19. (Previously Presented) The computer program product of claim 18, where the program code further configured upon execution to:

receive an indication that an instance of a coupon is printed, where the digital coupon comprises a serial number that uniquely identifies the instance of the coupon; and

in response to receiving the indication that the instance of the coupon is printed, adding the serial number to a database of authorized coupon serial numbers.

20. (Previously Presented) The computer program product of claim 18, where the program code is further configured upon execution to:

receive redemption information for the transaction indicating that the at least one coupon has been redeemed;

analyze the redemption information in order to detect an alert event; and

in response to detecting an alert event, generate a notification that the alert event occurred.

Remarks

In the final Office Action dated February 28, 2017, claims 1-20 stand rejected under sections 101 and 102 and claim 9 further stands rejected under section 103. Reconsideration of the present application in light of the foregoing claims listing, the remarks presented in Applicant's response filed May 26, 2017 and the supplemental remarks presented here is respectfully requested.

I. Applicant's Claims Are Patent Eligible Under 35 U.S.C. § 101

A. The Claims Define An Unconventional System Configuration Providing Tangible Solutions to Problems and Are Not Directed to a Mere Abstract Idea

The Examiner contends that "the abstract idea at the heart of the claims is validating coupons at a point of sale device." (Office Action p. 3.) Applicant respectfully disagrees. As an initial matter this characterization oversimplifies Applicant's claims. A more accurate distillation is "remote computer validation and redemption authorization of paper coupons presented at a point of sale device." The difference is significant and because it allows consideration of the tangible real-world benefits of Applicant's claims which is required under a section 101 analysis.

Imagine that the Examiner is standing in line at the grocery store. The customer in front of the Examiner has a full cart and three energetic children who are boisterously emptying the cart onto the conveyer belt. The check-out process goes smoothly at first as the groceries are scanned with a familiar series of beeps and promptly bagged for the trip home. The customer preemptively swipes a credit card to urge the check out to conclusion. Then the customer presets a stack of paper coupons to be processed.

As the cashier starts to scan the coupons, the process slows. The children grow bored and begin to bicker. Finally, the cashier scans the last coupon in the stack. The scanner does not accept it. The cashier tries again. No success. The bickering escalates, hair is pulled and shrieking ensues. The cashier squints at the small but lengthy sequence of numbers and letters printed on the coupon and painstakingly keys them into the register. At one point the cashier realizes a typo and starts over. Revenge is taken in the form of pinching and another child joins the shrieking chorus. The Examiner's head begins to ache as the customer tries to calm the children.

Finally, the register sounds out a final beep and the whirl of the printing receipt confirms that the relief is soon to follow. To everybody involved, this was an all-too-real, tangible event. Moreover, the underlying event which mercifully brings it to conclusion is also real and tangible, not merely an abstract idea. The validation of coupons at a point of sale device has direct real world consequences. Without the validation event, the check-out cannot be completed, the appropriate discount cannot be granted to the customer and the retailer cannot receive reimbursement for accepting a valid coupon. Moreover, the particular point of sale validation techniques defined by Applicant's claims solves problems in the art.

As explained in Applicant's specification:

the process of validating, clearing and financial settlement associated with paper coupons can be a slow, labor intensive process potentially prone to fraud and misuse. An extraordinary number of paper coupons are printed, distributed and redeemed each year. Once a coupon is redeemed by the consumer, the paper coupon is monetized and it must flow through the current manual clearing and settlement process before the retailer is reimbursed for the value of the paper coupon and the cost of handling the paper coupon. This physical paper coupon clearing process can be slow and manual and sometimes requires a second independent count of each paper coupon before a retailer is reimbursed. Also, within the current paper clearing and settlement process there can be the issue of disputes and charge backs by the manufacture for the value of the redeemed paper coupon to the retailer for paper coupons which the retailer redeemed, but should not have because they were invalid in some way, whether it was because the paper coupon was a copied, or was redeemed after the expiration date on the paper coupon.

(Specification at [0004] (emphasis added)). To solve the problems associated with manual clearing and settlement, Applicant discloses "a real time, convenient way for validating and processing paper coupons quickly, eliminating potential fraud, and providing an auditable and comprehensive financial settlement process, which would eliminate the need for manually counting and validating each paper coupon redeemed." (*Id.* at [0005].) The validation and redemption techniques of Applicant's claims not only improve the operation of computerized point of sale check-out systems for customers, they likewise improve the entire back-end paper coupon clearing process by improving on the cumbersome and error-prone validation and redemption techniques of the prior art.

B. The Rejection Errs by Oversimplifying Applicant’s Claims and Giving Insufficient Weight to the Problems that they Solve

The Federal Circuit has admonished that “courts ‘must be careful to avoid oversimplifying the claims’ by looking at them generally and failing to account for the specific requirements of the claims.” *McRO v. Bandai*, No. 2015-1080, slip op. at 21 (Fed. Cir. September 13, 2016) (“[w]hether at step one or step two of the Alice test ... a court must look to the claims as an ordered combination, without ignoring the requirements of the individual steps. The specific, claimed features of these rules allow for the improvement realized by the invention.” *Id.* More recently the Federal Circuit explained:

“[A]ll inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” *Mayo*, 566 U.S. at 71. We must therefore ensure at step one that we articulate what the claims are directed to with enough specificity to ensure the step one inquiry is meaningful. *Alice*, 134 S. Ct. at 2354 (“[W]e tread carefully in construing this exclusionary principle lest it swallow all of patent law.”).

Thales Visionix, Inc. v. U.S., 2015-5150, slip op. at 7-8 (Fed. Cir. March 8, 2017) (emphasis added). “[I]t is not enough to merely identify a patent-ineligible concept underlying the claim; we must determine whether that patent-ineligible concept is what the claim is ‘directed to.’” *Id.* at 10.

The particular facts of *Thales* provide useful guidance for the present analysis. *Thales* addressed claims that recited information processing acts performed on signals from conventional sensors.

1. A system for tracking the motion of an object relative to a moving reference frame, comprising:
 - a first inertial sensor mounted on the tracked object;
 - a second inertial sensor mounted on the moving reference frame; and
 - an element adapted to receive signals from said first and second inertial sensors and configured to determine an orientation of the object relative to the moving reference frame based on the signals received from the first and second inertial sensors.
22. A method comprising determining an orientation of an object relative to a moving reference frame based on signals from two inertial sensors mounted respectively on the object and on the moving reference frame.

The trial court found that these claims were “(1) are directed to the abstract idea of using laws of nature governing motion to track two objects, and (2) provide no inventive concept beyond the abstract idea.” *Id.* at 5. The Federal Circuit disagreed and reversed.

These claims are not merely directed to the abstract idea of using “mathematical equations for determining the relative position of a moving object to a moving reference frame,” as the Claims Court found. *Thales*, 122 Fed. Cl. at 252. Rather, the claims are directed to systems and methods that use inertial sensors in a non-conventional manner to reduce errors in measuring the relative position and orientation of a moving object on a moving reference frame.

Id. at 10 (emphasis added). Even though the elements of the claims were conventional and the claims quite clearly involved an underlying abstract concept, they were patent eligible because they provided a non-conventional arrangement that solved a problem in the art. In other words, the claims were not “doom[ed] to abstraction” because they were directed to applying the underlying abstract idea to solve a problem. *Id.*

The present rejection suffers from the same error leading to reversal in *Thales*. Although the rejection has discussed the language of the claims, it has not appreciated or given necessary consideration to the fact that they are directed to unconventional arrangements of system elements and method acts that solve technical problems which arise when trying to use point of sale computing devices to clear paper coupons.

II. The Claims Are Not Anticipated Under 35 U.S.C. § 102 or Obvious Under § 103

Claims 1-20 were rejected under 35 U.S.C. § 102(a) as being anticipated by Fajkowski (US A1). “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); *MPEP* § 2131. “The identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989); *MPEP* § 2131. The elements must be arranged as required by the claim. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990); *MPEP* § 2131. The claims must not be treated as “mere catalogs of separate parts, in disregard of the part-to-part relationships set forth in the claims and that give the claims their meaning.” *Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick Company et al.*, 730 F.2d 1452, 1459, 221 USPQ 481, 486 (Fed. Cir. 1984).

As pointed out in Applicant's prior response, claim 1 recites, "receiving, at a coupon processing server, data elements from a networked point-of-sale device for validation and redemption during a transaction" and that "the coupon information is received at the point-of-sale device located at a first location and where the coupon processing server is at a second location that is remote from the first location." Fajkowski discloses a "local server computer that "may be networked to all the periphery devices in the store." *See* paragraph [0011]. However, Fajkowski does not teach a networked point-of-sale device located at a first location and a coupon processing server located at a second location that is remote from the first location, as claimed by Applicant. Fajkowski fails to teach each and every limitation of Applicant's claims and therefore fails to anticipate.

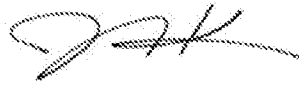
Additionally, Fajkowski fails to anticipate Applicant's claims because it uses smart card technology to capture, store, deliver and retrieve coupon data and cash register transaction data. The system of Fajkowski describes the installation of hardware (e.g., the periphery devices) between the cash register and the consumer which would be cost prohibitive to install. *See* paragraphs [0010]-[0011]. These periphery devices transfer coupon data stored in the coupon card to the periphery device and cash register transaction data from the cash register to the periphery device. This is in sharp contrast to the system described in the instant application where no additional in-store, in-the-lane hardware is required to transfer stored coupon data or cash register transaction data.

As to the rejection of claim 9 under section 103, the combination and modification proposed by the rejection fails to account for the aforementioned differences and claim 1 therefore patentably distinguishes over the art for at least the reasons set forth above.

Conclusion

As explained above, Applicant's claims are a unique arrangement of elements which leverage an underlying concept by particularly applying the concept to solve problems in the art.

Respectfully submitted,



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Electronic Patent Application Fee Transmittal

Application Number:	13911175			
Filing Date:	06-Jun-2013			
Title of Invention:	INTELLIGENT CLEARING NETWORK			
First Named Inventor/Applicant Name:	Richard B. Thibedeau			
Filer:	Jason A. Houdek/Lisa Schodrowski			
Attorney Docket Number:	33101-PN006			
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
RCE- 1st Request	2801	1	600	600
Total in USD (\$)				600

Electronic Acknowledgement Receipt

EFS ID:	29906870
Application Number:	13911175
International Application Number:	
Confirmation Number:	1021
Title of Invention:	INTELLIGENT CLEARING NETWORK
First Named Inventor/Applicant Name:	Richard B. Thibedeau
Customer Number:	43218
Filer:	Jason A. Houdek
Filer Authorized By:	
Attorney Docket Number:	33101-PN006
Receipt Date:	27-JUL-2017
Filing Date:	06-JUN-2013
Time Stamp:	13:34:29
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	\$600
RAM confirmation Number	072717INTEFSW00013141501438
Deposit Account	
Authorized User	

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1	Request for Continued Examination (RCE)	2017-07-27_RCE_33101-PN006.PDF	85615	no	2
			9443746cf268d7afcb4983e58692862b430e10f0		
Warnings:					
This is not a USPTO supplied RCE SB30 form.					
Information:					
2		2017-07-27_Supp_Resp_FOA_33101-PN006.PDF	192692	yes	12
			de84a37f62ca907ef081f3f64d85b7916fd22b90		
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Response After Final Action		1	1	
	Claims		2	6	
	Response After Final Action		7	12	
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	30549	no	2
			84438655895482993f8643dfe3830238971d7332		
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If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875					Application or Docket Number 13/911,175		Filing Date 06/06/2013		☐ To be Mailed		
ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO											
APPLICATION AS FILED – PART I											
(Column 1)			(Column 2)								
FOR		NUMBER FILED		NUMBER EXTRA		RATE (\$)		FEE (\$)			
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))		N/A		N/A		N/A					
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))		N/A		N/A		N/A					
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))		N/A		N/A		N/A					
TOTAL CLAIMS (37 CFR 1.16(i))		minus 20 =		*		X \$ =					
INDEPENDENT CLAIMS (37 CFR 1.16(h))		minus 3 =		*		X \$ =					
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))		If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).									
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))											
* If the difference in column 1 is less than zero, enter "0" in column 2.						TOTAL					
APPLICATION AS AMENDED – PART II											
(Column 1)			(Column 2)			(Column 3)					
AMENDMENT	07/27/2017		CLAIMS REMAINING AFTER AMENDMENT			HIGHEST NUMBER PREVIOUSLY PAID FOR		PRESENT EXTRA			
	Total (37 CFR 1.16(i))		* 20		Minus	** 20		= 0			
	Independent (37 CFR 1.16(h))		* 3		Minus	*** 3		= 0			
	☐ Application Size Fee (37 CFR 1.16(s))										
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))										
						TOTAL ADD'L FEE		0			
(Column 1)			(Column 2)			(Column 3)					
AMENDMENT			CLAIMS REMAINING AFTER AMENDMENT			HIGHEST NUMBER PREVIOUSLY PAID FOR		PRESENT EXTRA			
	Total (37 CFR 1.16(i))		*		Minus	**		=			
	Independent (37 CFR 1.16(h))		*		Minus	***		=			
	☐ Application Size Fee (37 CFR 1.16(s))										
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))										
						TOTAL ADD'L FEE					
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.											

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UNITED STATES PATENT AND TRADEMARK OFFICE

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Dec 15 2017

This paper requesting to schedule and/or conduct an interview is appropriate because:

This submission is requested to be accepted as an authorization for this interview to communicate via the internet. Recognizing that Internet communications are not secure, I hereby authorize the USPTO to communicate with the undersigned concerning scheduling of the interview via video conference, instant messaging, or electronic mail, and to conduct the interview in accordance with office practice including video conferencing.

Name(s) :

Jason A. Houdek

S-signature:

/Jason A Houdek/

Registration Number:

54620

U.S. Application Number:

13911175

Confirmation Number:

1021

E-mail Address:

jhoudek@taftlaw.com

Phone Number:

3177139458

Proposed Time of Interview:

12-27-2017 11:00 AM ET

Preferred Interview Type:

Telephonic

I am the applicant or applicant's representative for this application.



UNITED STATES
PATENT AND TRADEMARK OFFICE

PALM-SILVER

Doc code: IDS

PTO/SB/08a (03-15)

Doc description: Information Disclosure Statement (IDS) Filed

Approved for use through 07/31/2016. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	13911175
	Filing Date	2013-06-06
	First Named Inventor	Thibedeau, Richard B.
	Art Unit	3622
	Examiner Name	VAN BRAMER, JOHN W
	Attorney Docket Number	33101-PN006

U.S.PATENTS						Remove
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	7877288	B1	2017-01-25	Cunningham et al.	

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Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20070276727		2007-11-29	Thibedeau	
	2	20050230473	A1	2005-10-20	Fajkowski	

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	13911175
Filing Date	2013-06-06
First Named Inventor	Thibedeau, Richard B.
Art Unit	3622
Examiner Name	VAN BRAMER, JOHN W
Attorney Docket Number	33101-PN006

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
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EXAMINER SIGNATURE

Examiner Signature	/John Van Bramer/	Date Considered	02/05/2018
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)

Application Number	13911175
Filing Date	2013-06-06
First Named Inventor	Thibedeau, Richard B.
Art Unit	3622
Examiner Name	VAN BRAMER, JOHN W
Attorney Docket Number	33101-PN006

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☒ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature		Date (YYYY-MM-DD)	
Name/Print	Jason A. Houdek	Registration Number	54620

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

/John Van Bramer/

02/05/2018



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/911,175	06/06/2013	Richard B. Thibedeau	33101-PN006	1021
43218	7590	02/09/2018		
Taft Stettinius & Hollister LLP ONE INDIANA SQUARE, SUITE 3500 INDIANAPOLIS, INDIANA 46204-2023			EXAMINER VAN BRAMER, JOHN W	
			ART UNIT	PAPER NUMBER
			3621	
			NOTIFICATION DATE	DELIVERY MODE
			02/09/2018	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):

Taft-IP-Docket@taftlaw.com

DETAILED ACTION

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

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 27, 2017 has been entered.

Response to Amendment

3. The amendment filed on July 27, 2017 cancelled no claims. No claims were amended and no new claims were added. Thus, the currently pending claims addressed below are claims 1-20.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an

abstract idea) without significantly more. Claim(s) 1-20 is/are directed to an abstract idea. The claim(s) does/do not include additional elements that are sufficient to amount to significantly more than the judicial exception. The applicant has invented a system for receiving data relating to a coupon redemption, analyzing the data to validate the coupon, and displaying validation results based on the collection and analysis. The examiner has identified that the claims are directed towards a method, an apparatus, and a product which is/are a statutory class of invention. Next, the examiner analyzed the claims to determine whether they are directed to a judicial exception. The examiner determined that the claims are directed to an abstract idea. The identified abstract idea at the heart of the claims is receiving data relating to a coupon redemption, analyzing the data to validate the coupon, and displaying validation results based on the collection and analysis. The limitations that set forth the abstract idea are:

- Receiving data elements for validation and redemption during a transaction, the data elements including product code information of an item to be purchased and coupon information, where the coupon information is received which is considered "collecting information, analyzing it and displaying certain results of the collection and analysis (e.g. Electric Power Group) which is an abstract idea. Additionally, as per the July 2015 Update: Subject Matter Eligibility, the courts have recognized the following computer functions to be well-understood, routine, and conventional: performing repetitive calculations; **receiving**, processing, and storing **data**; electronically scanning or extracting data from a physical document; electronic record keeping; automating manual tasks; and **receiving** or transmitting **data over a network**.

- Validating at least one coupon based at least in part on the product code information and the coupon information which is considered "collecting information, analyzing it and displaying certain results of the collection and analysis (e.g. Electric Power Group), wherein the analysis includes "obtaining and comparing intangible data" (e.g. Cybersource) which is an abstract idea. Additionally, as per the July 2015 Update: Subject Matter Eligibility, the courts have recognized the following computer functions to be well-understood, routine, and conventional: **performing repetitive calculations**; receiving, **processing**, and storing **data**; electronically scanning or extracting data from a physical document; electronic record keeping; **automating metal tasks**; and receiving or transmitting data over a network.
- In response to validating the at least one coupon, sending a coupon message that indicates whether the at least one coupon has been validated for redemption in the transaction which is considered "collecting information, analyzing it and displaying certain results of the collection and analysis (e.g. Electric Power Group) which is an abstract idea. Additionally, as per the July 2015 Update: Subject Matter Eligibility, the courts have recognized the following computer functions to be well-understood, routine, and conventional: performing repetitive calculations; receiving, processing, and storing data; electronically scanning or extracting data from a physical document; electronic record keeping; automating metal tasks; and receiving or **transmitting data over a network**.

As such, these steps are similar to the concepts identified as abstract ideas by the courts. The claim elements in addition to the abstract idea are "a processor"; "a

memory; "computer program code"; "a coupon processing server"; "a point-of-sale device" and "at the point-of-sale device located at a first location, where the server is at a second location that is remote from the first location". The processor, memory, code, server, and point-of-sale device are recited at a high level of generality, and comprise general purpose computers performing the generic computer functions of receiving data elements, validating at least one coupon, and sending a coupon message. Generic computers performing generic computer functions, alone, do not amount to significantly more than the abstract idea. Considered individually, the steps of receiving data elements, validating at least one coupon, and sending a coupon message further describe the abstract idea but do not make it less abstract. Next, the examiner considered whether the ordered combination of steps in the claim recited an abstraction (an idea having no particular concrete or tangible form). Aside from the recitation of a general purpose computer, the steps of receiving data elements, validating at least one coupon, and sending a coupon message all describe an abstract idea, devoid of a concrete or tangible application. The claims merely recite the performance of an abstract idea using a computer and/or a computer network. The examiner next determined whether the claims do significantly more than simply describe the abstract method and whether the limitations of the claims contain an "inventive concept" to "transform" the claimed abstract idea into patent-eligible subject matter and concluded that the limitations do not transform the abstract idea that they recite into patent-eligible subject matter because the claims simply instruct the practitioner to implement the abstract idea with "routine, conventional activities" using general purpose computing devices which is insufficient to transform the patent-ineligible abstract idea into patent-

eligible subject matter. Considered as a whole, the recited steps merely organize the abstract idea into a stepwise description of a process used to perform the abstract idea and amount to no more than receiving data relating to a coupon redemption, analyzing the data to validate the coupon, and displaying validation results based on the collection and analysis. The claim merely instructs the practitioner to implement the concept of receiving data relating to a coupon redemption, analyzing the data to validate the coupon, and displaying validation results based on the collection and analysis with routine, conventional activity specified at a high level of generality in a particular technological environment. When view either individual or as an order combination, the claim as a whole does not add significantly more to the abstract idea of receiving data relating to a coupon redemption, analyzing the data to validate the coupon, and displaying validation results based on the collection and analysis. As such, the claim is not patent eligible. The claims are similar to the Electric Power Group and Cybersource cases in which the claims merely describe the collection and analysis of coupon information followed by the displaying the results of the collection and analysis using a general purpose computer in communication with a network. The limitations of the dependent claims have been considered in the same fashion and do not cure the deficiencies of the claims from which they depend and as such are rejected by virtue of dependency. Each of the dependent claims are directed towards subject matter that the court has determined to be an abstract idea such as comparing data that can be performed mentally (e.g. Ambry, Myraid CAFC), obtaining and comparing intangible data (e.g. Cybersource), organizing information through mathematical correlations (e.g. Digitech), using a mathematical formula, algorithm, calculation to obtain a result (e.g.

Benson, Flook, Bancorp) , delivering user selected media content to portable devices” (e.g. Affinity Labs v. Amazon.com), collecting information, analyzing it and displaying certain results of the collection and analysis (e.g. Electric Power Group), remotely accessing and retrieving user-specified information” (Int. Ventures v. Erie Indemnity), collecting, displaying, and manipulating data” (Int. Ventures v. Cap One Financial), or tailoring content based on information about the user (Int. Ventures v. Cap One Bank '382). Aside from these abstract ideas the dependent claims recited the performance of computer functions that are well-understood, routine, and conventional such as receiving, processing, and storing data; electronically scanning or extracting data; electronic record keeping, automating metal tasks and receiving or transmitting data over a network. As per the July 2015 Update: Subject Matter Eligibility, The courts have recognized the following computer functions to be well-understood, routine, and conventional: performing repetitive calculations; receiving, processing, and storing data; electronically scanning or extracting data from a physical document; electronic record keeping; automating metal tasks; and receiving or transmitting data over a network.

Claim Rejections - 35 USC § 102

6. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

7. The following is a quotation of the appropriate paragraphs of pre-AIA 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-20 are rejected under pre-AIA 35 U.S.C. 102(e) as being anticipated by Fajkowski (PGPUB: US 2005/0230473).

Claims 1, 15 and 18: Fajkowski discloses a method, an apparatus, and a computer readable medium tangibly encoded with a computer program executable by a processor to perform actions comprising:

- a. A processor. (Paragraphs [0009]; [0010]; [0014] through [0016]; [0063]; and [0080]-[0085])
- b. A memory including computer program code, the memory and computer program code configured to, with the processor, (Paragraphs [0009]; [0010]; [0014] through [0016]; [0063]; and [0080]-[0085]) cause the apparatus to perform at least the following:
 1. Receiving, at a coupon processing server, data elements from a networked point-of-sale device for validation and redemption during a transaction, the data elements including product code information of an item to be purchased and coupon information, where the coupon information is received at the

- point-of-sale device located at a first location, and where the coupon processing server is at a second location that is remote from the first location. (Fig. 1; Fig 10; Paragraphs [0009] through [0012]; [0042]; [0048] through [0050] [0065] through [0069]; [0085]; [0087] through [0090] and [0095])
2. Validating, by the coupon processing server, at least one coupon based at least in part on the product code information and the coupon information. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])
 3. In response to validating the at least one coupon, sending, by the coupon processing server, a coupon message that indicates whether the at least one coupon has been validated for redemption in the transaction. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050]; [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claim 2: Fajkowski discloses the method of claim 1, where the coupon information comprises a serial number that uniquely identifies an instance of the coupon, where the at least one coupon comprises the at least one instance of the coupon. (Figures 6, 7a, 7b, 8, and 9; Paragraphs [0010]; [0062] through [0071]; and [0106])

Claim 3. Fajkowski discloses the method of claim 2, where validating the at least one coupon comprises verifying that the serial number is loaded in a database of authorized coupon serial numbers. (Fig. 1; Fig 10; Paragraphs [0009] through

[0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069];
[0080]-[0083]; [0087] through [0090])

Claim 4: Fajkowski discloses the method of claim 1, where validating the at least one coupon comprises verifying, for each of the at least one coupon, whether the coupon is not loaded in a database of unacceptable coupons. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claims 5, 16 and 19: Fajkowski discloses the method of claim 1, the apparatus of claim 15, and the computer readable medium of claim 18, further comprising: receiving, by the coupon processing server, an indication that an instance of a coupon is printed, where the digital coupon comprises a serial number that uniquely identifies the instance of the coupon; and in response to receiving the indication that the instance of the coupon is printed, adding the serial number to a database of authorized coupon serial numbers. (Paragraphs [0014] through [0016]; [0049] through [0052]; [0065] through [0067]; [0070] through [0073])

Claim 6: Fajkowski discloses the method of claim 1, where the coupon information comprises a master coupon information, where the method further comprises, in response to receiving the master coupon information, identifying at least two coupons, where the at least two coupons are associated with the master coupon. (Paragraphs [0088] through [0091])

Claim 7: Fajkowski discloses the method of claim 1, further comprising:

- a. Adding first coupon details for a first coupon to a coupon database. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])
- b. Receiving second coupon details for the first coupon. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])
- c. In response to receiving the second coupon details for the first coupon, updating the coupon database with the second coupon details, where receiving the data elements occurs after updating the coupon database, where the at least one coupon comprises the first coupon and where the coupon message further comprises at least a portion of the second coupon details. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claim 8: Fajkowski discloses the method of claim 1, further comprising:

- a. Receiving redemption information for the transaction indicating that the at least one coupon has been redeemed. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])
- b. In response to receiving the redemption information, storing the redemption information in a redemption database. (Fig. 1; Fig 10; Paragraphs [0009] through

[0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

- c. Generating a redemption data report based on the redemption information database regarding at least one transaction, where the redemption data report comprises, for each transaction of at least one transaction, information identifying an item purchased redeeming at least one coupon during the transaction. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claim 10: Fajkowski discloses the method of claim 1, where the point-of-sale device comprises a computer performing an on-line purchase. (Fig. 1; Fig 10; Paragraphs [0009] through [0015]; [0017]; [0042] through [0045]; [0047] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claim 11: Fajkowski discloses the method of claim 1, where validating the at least one coupon is further based on a zone assigned to the point-of-sale device. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claims 12, 17, and 20: Fajkowski discloses the method of claim 1, the apparatus of claim 15, and the computer readable medium of claim 18 further comprising:

- a. Receiving redemption information for the transaction indicating that the at least one coupon has been redeemed. (Fig. 1; Fig 10; Paragraphs [0009] through

[0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

- b. Analyzing the redemption information in order to detect an alert event. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])
- c. In response to detecting an alert event, generating a notification that the alert event occurred. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claim 13: Fajkowski discloses the method of claim 12, where generating the notification comprises sending a message to the first location. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claim 14: Fajkowski discloses the method of claim 12, where an alert event is one of: when redemption of a coupon which was indicated as invalid is performed; when the data elements include an account number for customer in a given customer class; when redemption of a coupon at a price that is not authorized is performed; when a threshold number of redemptions by a specific clerk of coupons at prices that are not authorized is reach; when redemption of a coupon at a price sufficiently different from a price that is authorized is performed; when an average amount of time between transactions by a specific clerk exceeds a threshold time; and when a

threshold number of manual inputs of coupon information indicates a potential point-of sale device failure. (Fig. 1; Fig 10; Paragraphs [0009] through [0013]; [0017]; [0042] through [0045]; [0048] through [0050] [0065] through [0069]; [0080]-[0083]; [0087] through [0090])

Claim Rejections - 35 USC § 103

9. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

10. 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.

11. Claim 9 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Fajkowski (PGPUB: US 2005/0230473).

Claim 9: Fajkowski discloses the method of claim 1, where the coupon is voucher (Paragraphs [0009] through [0012]; [0042]; [0048] through [0050] [0065] through [0069]; [0076] through [0078]; [0085]; [0087] through [0090] and [0095]). While Fajkowski does not specifically state that the voucher is a Women Infants and

Children program voucher, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included Women, Infant, and Children program vouchers in the invention of Fajkowski. The rationale for doing so is that there are a limited number of predictable types of coupons and a Women, Infant, and Children program vouchers is one such predictable type of coupon.

Response to Arguments

12. Applicant's arguments filed July 27, 2017, have been fully considered but they are not persuasive.

a. The applicant argues that the claims are not directed to an abstract idea because they define an unconventional system configuration providing tangible solutions to problems. The examiner disagrees. The scope of the claims merely define a computer that receives data, validates it, and sends a response. As such there is no unconventional system configuration required by the scope of the claims as currently written. Even if the examiner were to consider, a configuration in which validation is done at a different location than scanning, such a configuration would not be unconventional as validating coupons at a local server remote from the POS is old and well-known and as such is not unconventional. The applicant further posits that the claims "a real time, convenient way for validating and processing paper coupons quickly, eliminating potential fraud, and providing an auditable and comprehensive financial statement process". The examiner has reviewed the claims and can find no recitation in the claims of providing an auditable and comprehensive financial

statement process". The claims merely indicate the sending of a coupon message that indicates whether the at least one coupon has been validated. Furthermore, it is counter intuitive to believe that remotely validating a coupon is a way of processing paper coupons more quickly or conveniently than validating them electronically at the POS. As such, the examiner is not convinced that the claims as currently written result in the claimed technical solution to a technical problem of claims "a real time, convenient way for validating and processing paper coupons quickly, eliminating potential fraud, and providing an auditable and comprehensive financial statement process".

b. The applicant argues that the examiner's rejection errs by oversimplifying applicant's claims and giving insufficient weight to the problems they solve because the claims of the instant invention are similar to the invention of Thales. The examiner disagrees. Whereas the claims of Thales positively recite both the inclusion of the first and second sensors and the locations at which they are placed in the scope of the claim, the claims of the instant invention merely include the server in the scope of the claims. Since, the decision is Thales is based on the specific arrangement of the claimed sensors and an element operating together to result in the claimed improvement, there is no similarity between the instant claims and the claims of Thales. In the instant claims the POS itself is outside the scope of the claims.

c. In regards to the prior art rejection, the applicants argue that Fajkowski does not teach a networked point-of-sale device located at a first location and a coupon processing server located at a second location that is remote from the

first location. The examiner disagrees. The applicant's specification describes coupons as being an incentive (Paragraph [0051] "coupons and/or incentives" or a voucher (Paragraph [0273] "In another exemplary embodiment of the method above, the coupon is a Women Infants and Children program voucher") and coupon and incentives are described as "Both coupons and incentives may provide a vehicle for delivering discounts that the ICN technology captures when the UPC bar code of a product being purchased is scanned at the POS terminal" in paragraph [0074]. As such it is clear that the coupons of the instant invention are the same as the "rebates" of Fajkowski as disclosed in paragraph [0087]. Fajkowski discloses the validation of rebates at the local server which is remote from the POS. Fajkowski clearly discloses that the local server is at a different location than the POS in at least paragraph [0011] where it is disclosed that "A still further component that could be utilized in the present invention is a local server computer. The server may be networked to all the periphery devices in the store". There is nothing in the claim that requires the different locations to be in different establishments. Instead the claims merely require that they be in different locations. Fajkowski discloses that they are in different locations in the same business establishment. As such, the limitations of the claims as currently written have been met.

d. The applicant's arguments directed to the periphery device are not convincing. The scope of the applicants claim is directed to the server that receives information from a POS. There is nothing in the claims that precludes

the POS itself to be a periphery device or to include a periphery device. As such, the limitations of the claims as currently written have been met.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). 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 date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN W VAN BRAMER whose telephone number is (571)272-8198. The examiner can normally be reached on Monday-Thursday 7:00 am - 5:30 pm EST.

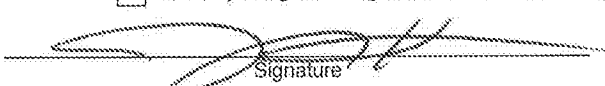
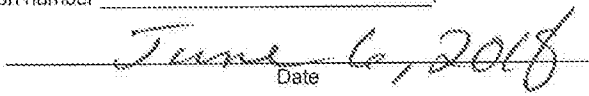
Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an

interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rutao Wu can be reached on 571-272-3136. 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.

/John Van Bramer/
Primary Examiner, Art Unit 3621

PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)		Docket Number (Optional) 33101-PN006																														
Application Number 13/911,175	Filed 06/06/2013																															
For INTELLIGENT CLEARING NETWORK																																
Art Unit 3621	Examiner VAN BRAMER, JOHN W																															
This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above-identified application. The requested extension and fee are as follows (check time period desired and enter the appropriate fee below): <table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th></th><th style="text-align: center;">Fee</th><th style="text-align: center;">Small Entity Fee</th><th style="text-align: center;">Micro Entity Fee</th><th></th></tr></thead><tbody><tr><td>☒ One month (37 CFR 1.17(a)(1))</td><td style="text-align: center;">\$200</td><td style="text-align: center;">\$100</td><td style="text-align: center;">\$50</td><td style="text-align: right;">\$ <u>100.00</u></td></tr><tr><td>☐ Two months (37 CFR 1.17(a)(2))</td><td style="text-align: center;">\$600</td><td style="text-align: center;">\$300</td><td style="text-align: center;">\$150</td><td style="text-align: right;">\$ _____</td></tr><tr><td>☐ Three months (37 CFR 1.17(a)(3))</td><td style="text-align: center;">\$1,400</td><td style="text-align: center;">\$700</td><td style="text-align: center;">\$350</td><td style="text-align: right;">\$ _____</td></tr><tr><td>☐ Four months (37 CFR 1.17(a)(4))</td><td style="text-align: center;">\$2,200</td><td style="text-align: center;">\$1,100</td><td style="text-align: center;">\$550</td><td style="text-align: right;">\$ _____</td></tr><tr><td>☐ Five months (37 CFR 1.17(a)(5))</td><td style="text-align: center;">\$3,000</td><td style="text-align: center;">\$1,500</td><td style="text-align: center;">\$750</td><td style="text-align: right;">\$ _____</td></tr></tbody></table> ☒ Applicant asserts small entity status. See 37 CFR 1.27. ☐ Applicant certifies micro entity status. See 37 CFR 1.29. Form PTO/SB/15A or B or equivalent must either be enclosed or have been submitted previously. ☐ A check in the amount of the fee is enclosed. ☐ Payment by credit card. Form PTO-2038 is attached. ☐ The Director has already been authorized to charge fees in this application to a Deposit Account. ☒ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number <u>50-1438</u> ☐ Payment made via EFS-Web. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038. I am the ☐ applicant/inventor. ☐ assignee of record of the entire interest. See 37 CFR 3.71. 37 CFR 3.73(b) statement is enclosed (Form PTO/SB/96). ☒ attorney or agent of record. Registration number <u>54,620</u> ☐ attorney or agent acting under 37 CFR 1.34. Registration number _____  _____ Jason A. Houdek Typed or printed name  _____ 317-713-9458 Telephone Number NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below. ☒ * Total of <u>1</u> forms are submitted.				Fee	Small Entity Fee	Micro Entity Fee		☒ One month (37 CFR 1.17(a)(1))	\$200	\$100	\$50	\$ <u>100.00</u>	☐ Two months (37 CFR 1.17(a)(2))	\$600	\$300	\$150	\$ _____	☐ Three months (37 CFR 1.17(a)(3))	\$1,400	\$700	\$350	\$ _____	☐ Four months (37 CFR 1.17(a)(4))	\$2,200	\$1,100	\$550	\$ _____	☐ Five months (37 CFR 1.17(a)(5))	\$3,000	\$1,500	\$750	\$ _____
	Fee	Small Entity Fee	Micro Entity Fee																													
☒ One month (37 CFR 1.17(a)(1))	\$200	\$100	\$50	\$ <u>100.00</u>																												
☐ Two months (37 CFR 1.17(a)(2))	\$600	\$300	\$150	\$ _____																												
☐ Three months (37 CFR 1.17(a)(3))	\$1,400	\$700	\$350	\$ _____																												
☐ Four months (37 CFR 1.17(a)(4))	\$2,200	\$1,100	\$550	\$ _____																												
☐ Five months (37 CFR 1.17(a)(5))	\$3,000	\$1,500	\$750	\$ _____																												

This collection of information is required by 37 CFR 1.136(a). The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 6 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Electronic Patent Application Fee Transmittal

Application Number:	13911175			
Filing Date:	06-Jun-2013			
Title of Invention:	INTELLIGENT CLEARING NETWORK			
First Named Inventor/Applicant Name:	Richard B. Thibedeau			
Filer:	Jason A. Houdek/Lisa Schodrowski			
Attorney Docket Number:	33101-PN006			
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension - 1 month with \$0 paid	2251	1	100	100
Miscellaneous:				
Total in USD (\$)				100

Electronic Acknowledgement Receipt

EFS ID:	32829669
Application Number:	13911175
International Application Number:	
Confirmation Number:	1021
Title of Invention:	INTELLIGENT CLEARING NETWORK
First Named Inventor/Applicant Name:	Richard B. Thibedeau
Customer Number:	43218
Filer:	Jason A. Houdek/Lisa Schodrowski
Filer Authorized By:	Jason A. Houdek
Attorney Docket Number:	33101-PN006
Receipt Date:	07-JUN-2018
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Time Stamp:	11:36:21
Application Type:	Utility under 35 USC 111(a)

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Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	\$ 100
RAM confirmation Number	060718INTEFSW00010843501438
Deposit Account	501438
Authorized User	Lisa Schodrowski

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:
37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Miscellaneous Incoming Letter	2018-06-07_Petition_For_Extension_of_Time_33101_PN006_2940293_1.PDF	312663	no	1
			1edf089bdf44cdcbc8c377aef4bafa6638e4b8844		
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30575	no	2
			2e70bac21404dae49e4638fe9474e0884725a75		
Warnings:					
Information:					
Total Files Size (in bytes):			343238		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/911,175	06/06/2013	Richard B. Thibedeau	33101-PN006	1021
43218	7590	09/21/2018		
Taft Stettinius & Hollister LLP ONE INDIANA SQUARE, SUITE 3500 INDIANAPOLIS, IN 46204-2023			EXAMINER VAN BRAMER, JOHN W	
			ART UNIT	PAPER NUMBER
			3621	
			NOTIFICATION DATE	DELIVERY MODE
			09/21/2018	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):

Taft-IP-Docket@taftlaw.com

<i>Notice of Abandonment</i>	Application No.	Applicant(s)
	13/911,175	Thibedeau et al.
	Examiner	Art Unit
	JOHN W VAN BRAMER	3621

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

This application is abandoned in view of:

1. ☒ Applicant's failure to timely file a proper reply to the Office letter mailed on 09 February 2018.
 - (a) ☐ A reply was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply (including a total extension of time of _____ month(s)) which expired on _____.
 - (b) ☐ A proposed reply was received on _____, but it does not constitute a proper reply under 37 CFR 1.113 to the final rejection. (A proper reply under 37 CFR 1.113 to a final rejection consists only of: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) if this is utility or plant application, a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. Note that RCEs are not permitted in design applications.)
 - (c) ☐ A reply was received on _____ but it does not constitute a proper reply, or a bona fide attempt at a proper reply, to the non-final rejection. See 37 CFR 1.85(a) and 1.111. (See explanation in box 7 below).
 - (d) ☒ No reply has been received.
2. ☐ Applicant's failure to timely pay the required issue fee and publication fee, if applicable, within the statutory period of three months from the mailing date of the Notice of Allowance (PTOL-85).
 - (a) ☐ The issue fee and publication fee, if applicable, was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the statutory period for payment of the issue fee (and publication fee) set in the Notice of Allowance (PTOL-85).
 - (b) ☐ The submitted fee of \$ _____ is insufficient. A balance of \$ _____ is due.
The issue fee required by 37CFR 1.18 is \$ _____. The publication fee, if required by 37 CFR 1.18(d), is \$ _____.
 - (c) ☐ The issue fee and publication fee, if applicable, has not been received.
3. ☐ Applicant's failure to timely file corrected drawings as required by, and within the three-month period set in, the Notice of Allowability (PTO-37).
 - (a) ☐ Proposed corrected drawings were received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply.
 - (b) ☐ No corrected drawings have been received.
4. ☐ The letter of express abandonment which is signed by the attorney or agent of record or other party authorized under 37 CFR 1.33 (b). See 37 CFR 1.138(b).
5. ☐ The letter of express abandonment which is signed by an attorney or agent (acting in a representative capacity under 37 CFR 1.34) upon the filing of a continuing application.
6. ☐ The decision by the Board of Patent Appeals and Interference rendered on _____ and because the period for seeking court review of the decision has expired and there are no allowed claims.
7. ☐ The reason(s) below:

/John Van Bramer/
Primary Examiner, Art Unit 3621

Petitions to revive under 37 CFR 1.137, or requests to withdraw the holding of abandonment under 37 CFR 1.181, should be promptly filed to minimize any negative effects on patent term.