

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

QUOTIENT TECHNOLOGY, LLC,
Petitioner,

v.

INTELLIGENT CLEARING NETWORK INC.,
Patent Owner.

Case No. IPR2024-01324

U.S. Patent No. 9,098,855

Petition for *Inter Partes* Review of U.S. Patent No. 9,098,855

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PETITIONER’S EXHIBIT LIST

Exhibit No.	Description
1001	U.S. Patent No. 9,098,855
1002	File History for U.S. Patent No. 9,098,855
1003	Declaration of Todd Mowry
1004	U.S. Patent No. 6,993,498 (“Deaton”)
1005	U.S. Patent App. Publ. No. US 2006/0074784 (“Brown”)
1006	U.S. Patent No. 7,013,286 (“Aggrawal”)
1007	U.S. Patent No. 6,932,270 (“Fajkowski”)
1008	U.S. Patent App. Publ. No. US 2007/0162337 A1 (“Hawkins”)
1009	U.S. Patent App. Publ. No. US 2005/0216340 A1 (“Schneider”)
1010	Complaint, <i>Inmar Brand Solutions, Inc. v. Quotient Technology Inc.</i> , 23-cv-00994, D. Del. (filed September 7, 2023)
1011	Scheduling Order, <i>Inmar Brand Solutions, Inc. v. Quotient Technology Inc.</i> , 23-cv-00994, D. Del. (filed June 4, 2024)
1012	District Court Trial Statistics (12-Month Period Ending March 31, 2024)
1013	U.S. Patent Application Publication No. 2003/0024981 (“Narasimhan”)
1014	The UPC at https://www.ibm.com/history/upc
1015	U.S. Patent No. 3,959,624 (“Kaslow”)
1016	U.S. Patent No. 8,511,553 (“McIntyre”)
1017	E.F. Codd, “A relational model of data for large shared data banks” Communications of the ACM, Vol. 13, Issue 6, June 1970 377-387
1018	David Gifford et al, “The CIRRUUS banking network” Communications of the ACM, Vol. 28, Issue 8, Aug. 1985 798–807
1019	Electronic ‘Coupons’: Savings but No Scissors (Apr. 21, 1990) at https://www.nytimes.com/1990/04/21/style/consumer-s-world-electronic-coupons-savings-but-no-scissors.html
1020	Patent Application Publication 2004/0030598 (“Boal”)
1021	U.S. Patent No. 7,231,357 (“Shanman”)

TABLE OF EXHIBITS

(continued)

Exhibit No.	Description
1022	Axel Winkelmann, <i>Integrated Couponing: A Process-Based Framework for In-Sore Coupon Promotion Handling in Retail</i> , Logos Verlag, (2006)
1023	Philip A. Bernstein, Newcomer, Eric. <i>Principles of Transaction Processing for the Systems Professional</i> , United Kingdom: Elsevier Science, (1997)
1024	U.S. Patent Application Publication No. 2005/114211 (“Amjadi”)
1025	A. S. Tanenbaum, A. S., & Van Steen, M., <i>Distributed systems: Principles and paradigms</i> , Prentice Hall (2002).

TABLE OF ABBREVIATIONS

Abbreviation	Term
'855 patent	U.S. Patent No. 9,098,855
AIA	America Invents Act
Challenged Claims	Claims 1–57 of U.S. Patent No. 9,098,855
Ex.	Exhibit
Fig.	Figure
IPR	<i>inter partes</i> review
Patent Owner	Intelligent Clearing Network, Inc.
Petitioner	Quotient Technology, LLC
POSITA	Person[s] of ordinary skill in the art

MANDATORY NOTICES

A. Real Parties-in-Interest [37 C.F.R. § 42.8(b)(1)]

The real parties-in-interest are Petitioner Quotient Technology, LLC (“Quotient” or “Petitioner”) and its parent entity, CB Neptune Holdings, LLC. In an abundance of caution, Petitioner lists the entity that was sued for patent infringement that was named Quotient Technology Inc. and other members in the corporate family to Quotient and CB Neptune Holdings, LLC including CB Neptune Midco Holdings, LLC, CB Neptune Intermediate Holdings, LLC and Neptune Partnership, LLC. Other real parties-in-interest include Patent Owner Intelligent Clearing Network, Inc. and Exclusive Licensee Inmar Brand Solutions, Inc.

B. Related Matters [37 C.F.R. § 42.8(b)(2)]

The ’855 patent that is the subject of this IPR Petition is also the subject of a patent litigation suit brought by Exclusive Licensee Inmar Brand Solutions, Inc. *Inmar Brand Solutions, Inc. v. Quotient Technologies Inc.*, C.A. No. 23-994 (JFM) (D. Del.). Quotient also filed a petition for IPR on U.S. Patent Nos. 9,070,133 and 10,846,729, which are related to the ’855 patent and are also subject of the patent litigation brought by the Exclusive Licensee.

C. Lead and Back-Up Counsel [37 C.F.R. § 42.8(b)(3)]

Pursuant to 37 C.F.R. §§ 42.8(b)(3), 42.8(b)(4), and 42.10(a), Petitioner provides the following designation of counsel:

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A Power of Attorney accompanies this Petition in accordance with 37 C.F.R.
§ 42.10(b).

D. Service Information [37 C.F.R. § 42.8(b)(4)]

Service via hand delivery or postal mail may be made at the address of the lead and back-up counsel above. Petitioner hereby consent to electronic service, and service by electronic mail may be made at the following email address:

GDCInmar-Quotient@gibsondunn.com

I. INTRODUCTION

Pursuant to 35 U.S.C. § 311, Petitioner hereby petitions for *inter partes* review of U.S. Patent No. 9,098,855 (Ex. 1001) and seek cancellation of claims 1–57 as unpatentable under 35 U.S.C. § 103.

The Challenged Claims were only allowed after a string of rejections to parent applications when the examiner determined that the art considered did not have a coupon processing server used for coupon validation that is remote from the retail store. But that feature was present in the prior art - namely the Deaton reference that was not in front of the Examiner. Deaton in combination with other prior art patents renders all claims obvious. Therefore, the petition for IPR should be instituted.

II. REQUIREMENTS OF *INTER PARTES* REVIEW

A. Standing

Pursuant to 37 C.F.R. § 42.104(a), Petitioner certifies that the '855 patent is available for IPR and that Petitioner is not barred or estopped from requesting an IPR on the grounds identified herein.

B. Identification of Challenge and Relief Requested

Pursuant to 37 C.F.R. § 42.104(b), Petitioner requests that the Board institute IPR of claims 1–57 of the '855 patent under pre-AIA 35 U.S.C. § 103.

The '855 patent issued from an application filed September 9, 2008, and claims priority to an application filed May 23, 2006. For purposes of this Petition

only, Petitioner does not dispute that the Challenged Claims are entitled to an effective filing date of May 23, 2006.

The precise relief requested by Petitioner is that claims 1–57 be canceled based on the grounds below:

Ground	Claims	Basis for Rejection ¹
1	1-23, 29-36, 41, and 45-57	Anticipation over Deaton
2	1-23, 29-36, 41, and 45-57	Obviousness over Deaton
3	23-27, 38-40, and 42-43	Obviousness over Deaton in view of Brown
4	28 and 44	Obviousness over Deaton and Brown in view of Aggrawal
5	8	Obviousness over Deaton in view of Fajkowski
6	37	Obviousness over Deaton in view of Hawkins
7	37	Obviousness over Deaton in view of Schneider

The above challenges are made in view of the following prior art references:

1. U.S. Patent No. 6,993,498 (“Deaton”) (Ex-1004)

U.S. Patent No. 6,993,498 (“Deaton”), titled “Point-of-sale server and method,” issued on January 31, 2006 from an application filed on July 26, 1999.

¹ All obviousness grounds include the knowledge of POSITA.

Deaton qualifies as prior art to the '855 patent under pre-AIA 35 U.S.C. § 102(a), (e).

Deaton was not cited or discussed during prosecution of the '855 patent.

2. U.S. Patent App. Publ. No. US 2006/0074784 (“Brown”) (Ex-1005)

U.S. Patent Application Publication No. US 2006/0074784 (“Brown”), titled “Stored value account for use with virtual coupons,” was published on April 6, 2006 from an application filed on September 27, 2004. Ex-1005. Brown therefore qualifies as prior art under pre-AIA 35 U.S.C. § 102(a) and 102(e) because it was filed and published before the priority date of the '855 patent. Brown was not cited or discussed during prosecution of the '855 patent.

3. U.S. Patent No. 7,013,286 (“Aggrawal”) (Ex-1006)

U.S. Patent No. 7,013,286 (“Aggrawal”) titled “Generation, distribution, storage, redemption, validation and clearing of electronic coupons,” issued on March 14, 2006 from an application filed on Dec. 30, 1999. Aggrawal qualifies as prior art to the '855 patent under pre-AIA 35 U.S.C. § 102(a), (e). Aggrawal was not cited or discussed during prosecution of the '855 patent.

4. U.S. Patent No. 6,932,270 (“Fajkowski”) (Ex-1007)

U.S. Patent No. 6,932,270 (“Fajkowski”) titled “Method and apparatus for coupon management and redemption,” issued on August 23, 2005, from an application filed on October 27, 1997. Fajkowski qualifies as prior art to the '855

patent under pre-AIA 35 U.S.C. § 102(a), (e). Fajkowksi was cited and discussed during prosecution of the '855 patent; but it was not cited or discussed in combination with Deaton as used in this petition.

**5. U.S. Patent App. Publ. No. US 2007/0162337 A1
("Hawkins") (Ex-1008)**

U.S. Patent App. Publ. No. US 2007/0162337 A1 ("Hawkins") titled "Method and system for distributing and redeeming targeted offers to customers," was published on July 12, 2007 from an application filed on December 5, 2005. Ex-1008. Hawkins therefore qualifies as prior art under pre-AIA 35 U.S.C. § 102(a) and 102(e) because it was filed and published before the priority date of the '855 patent. Hawkins was not cited or discussed during prosecution of the '855 patent.

**6. U.S. Patent App. Publ. No. US 2005/0216340 A1
("Schneider") (Ex-1009)**

U.S. Patent App. Publ. No. US 2005/0216340 A1 ("Schneider") titled "Biometric loyalty transaction system and method," was published on September 29, 2005 from an application filed on March 3, 2004. Ex-1009. Hawkins therefore qualifies as prior art under pre-AIA 35 U.S.C. § 102(a) and 102(e) because it was filed and published before the priority date of the '855 patent. Schneider was not cited or discussed during prosecution of the '855 patent.

C. How the Challenged Claims Are To Be Construed Under 37 C.F.R. § 42.104(b)(3)

A claim subject to IPR shall be construed using the same standard as in a civil action. 37 C.F.R. § 42.100(b). The Board need only construe terms “to the extent necessary to resolve the controversy.” *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017). Petitioner submits that no construction of any claims term is necessary for the Board to resolve. Petitioner maintains that the Challenged Claims would have been anticipated and/or obvious under any reasonable construction. As discussed in the detailed grounds below, the claims are unpatentable regardless of whether the preamble is limiting.

D. How the Challenged Claims Are Unpatentable Under 37 C.F.R. § 42.104(b)(4)

An explanation of how the Challenged Claims are unpatentable under the statutory grounds identified above, including the identification of where each element of the claim is found in the prior art patents or printed publications, is provided below.

E. Supporting Evidence Under 37 C.F.R. §42.104(b)(5)

The exhibit numbers of the supporting evidence relied upon and the relevance of the evidence to the challenged claims, including an identification of specific portions of the evidence that support the challenge, are provided below. A list of exhibits is also included in this petition pursuant to 37 C.F.R. § 42.63(e). The

technical information and grounds for rejection explained in the Petition are further supported by the Declaration of Dr. Daniel M. Nosenchuck (Ex. 1003).

F. Payment of Fees

Pursuant to 37 C.F.R. §§ 42.103 and 42.15(a), the required fee is being submitted herewith. The Office is authorized to charge any fee deficiency, or credit overpayment, to Deposit Account 50-1408, including additional fees due in connection with this Petition.

III. TECHNICAL BACKGROUND

A. State of the Art

Before the filing of the '855 patent, systems for an automated coupon redemption were known in the art. Ex-1013; Ex-1003, ¶46. For instance, retail store devices could scan a product barcode and automatically search the network for coupons available for that product. Ex-1013, ¶7. The coupons would then be available for immediate redemption at the retail store, and the redemption information would be transmitted in real-time to the coupon issuer and/or product manufacturer. Ex-1013, ¶¶15, 28; Ex-1003, ¶46.

With the introduction of terminals with scanners that could read and interpret barcodes, automatic coupon validation became easy and routine. *See* Ex-1014; Ex-1022, 89. Coupons could have a Uniform Product Code (“UPC”) that corresponded to a product scanned at a Point of Sale (“POS”) terminal, and the terminal that could

automatically determine the appropriate discount. *See* Ex-1015. Cashiers no longer had to determine if a coupon was valid—computers communicating in real-time over networks could. Ex-1016, 3:23–29; Ex-1022, 92-93. Specifically, after a consumer bought a qualified product from the retailer, a unique transaction code was sent to a remote server via a network, which was then able to validate the coupon; Ex-1003, ¶¶49-50.

B. Summary of the Alleged Invention of the '855 Patent

The '855 patent describes a “system for redeeming coupons, promotions, or incentives.” Ex-1001, Abstract; Ex-1003, ¶¶26-27. Figure 1 is an example of the system:

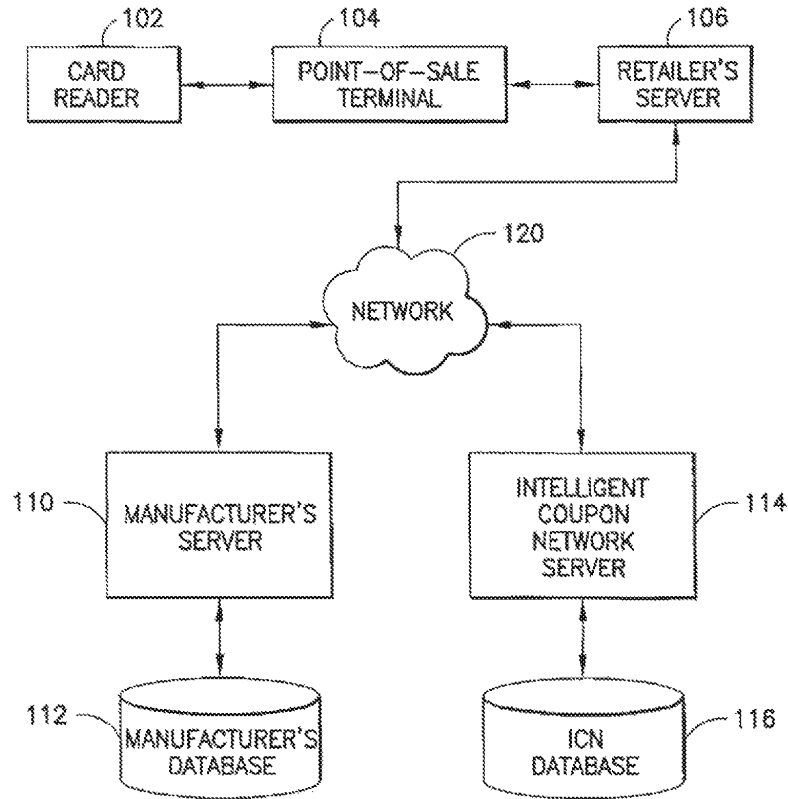


FIG.1

The system, referred to as an “Intelligent Clearing Network” (ICN), can electronically validate and redeem coupons through “a centralized database, such as ICN database 116, which is coupled to the ICN server 114.” Ex-1001, 4:17-27. Card reader 102 can read a customer’s coupon card and then send that information via the point-of-sale terminal 104 to the retail store server 106 and then to the ICN server 114. Ex-1001, 4:43-46. The ICN server can then notify the manufacture of a completed transaction by sending information to manufacturer’s server 110. Ex-1001, 5:1-4; Ex-1003, ¶28.

Against this structural backdrop of having points-of-sale, ICN server, and manufacturers, the '855 patent describes various embodiments involving coupons. For example, Figure 10 shows an embodiment where “coupons are delivered based on the presence of specific [Uniform Product Codes (UPCs)] or products in the consumer’s transaction 1004.” Ex-1001, 17:38-40; Ex-1003, ¶29.

At point-of-sale terminal 1006, the customer can present “products with UPCs 1004 to be purchased.” Ex-1001, 17:47-50. The UPCs are then communicated from the point-of-sale through the retailer’s network to ICN server 1012. Ex-1001, 17:51-65. The ICN server, via ICN promotion redemption service 1013, can compare the UPCs to be purchased “to all active promotions defined by the manufacturer or its representative on the ICN database 1014.” Ex-1001, 17:65-18:2. For any promotions applicable to the UPCs to be purchased, the ICN promotion redemption service 1013 may send a message back to the point-of-sale with “the manufacturer coupon code.” Ex-1001, 18:2-7. The point-of-sale may “attempt to redeem the manufacturer coupon against the target UPC.” Ex-1001, 18:15-17. The point-of-sale may also generate a message that contains “information regarding the success of the coupon redemption process” and transmit that message to the ICN server. Ex-1001, 18:18-22; Ex-1003, ¶30.

C. Summary of the Prosecution History of the '855 Patent

The application that resulted in the '855 patent was Appl. No. 12/283,206, filed on September 9, 2008. On June 7, 2011, the Examiner rejected, among other rejections, the pending claims as anticipated by Fajkowski (U.S. Patent App. Publ. No. 2005/0230473). Ex-1002, 157-178. On September 13, 2011, the Applicant distinguished Fajkowski in arguing that it does not disclose a server that is remote from the claimed POS terminals via the POS controllers for validation of coupons. Ex-1002, 199-200. On November 17, 2011, the Examiner rejected, among other rejections, the pending claims as anticipated over Paul (U.S. Patent No. 7,240,843). Ex-1002, 206-230. On August 22, 2014, the Applicant distinguished Paul by amending the claims to include the limitation that the coupon processing server for coupon validation is located remotely from the retail store. Ex-1002, 316.

On June 24, 2015, the Examiner issued a notice of allowance and the patent issued on August 4, 2015. Ex-1002, 366, 391. Thus, it is clear from the file history that the Examiner allowed the claims only because the coupon processing server used for coupon validation is recited as being remote from the retail store. *See* Ex-1003, ¶¶33-38

D. Person of Ordinary Skill in the Art

A POSITA would have had an undergraduate degree in electrical engineering, computer science, computer engineering, or similar technical field; and one to two

years of experience in the analysis, design, development, and implementation of distributed applications that involve client machines communicating with remote server machines over a network to perform queries and update transactions on data stored in database management systems, with additional education substituting for less experience and vice versa. Ex-1003, ¶¶22-24.

IV. GROUNDS OF UNPATENTABILITY

A. Grounds 1 and 2: Claims 1-23, 29-36, 41, and 45-57 Are Anticipated and/or Rendered Obvious Over Deaton

1. Summary of Deaton (Ex-1004)

Deaton describes a “point-of-sale server and method” that includes sending UPC(s) “over the Internet to a remote computer connected to the Internet.” Ex-1004, Title, Abstract. Figure 1 shows a “system for providing point-of-sale information to a manufacturer.” Ex-1004, 2:42-43; Ex-1003, ¶54.

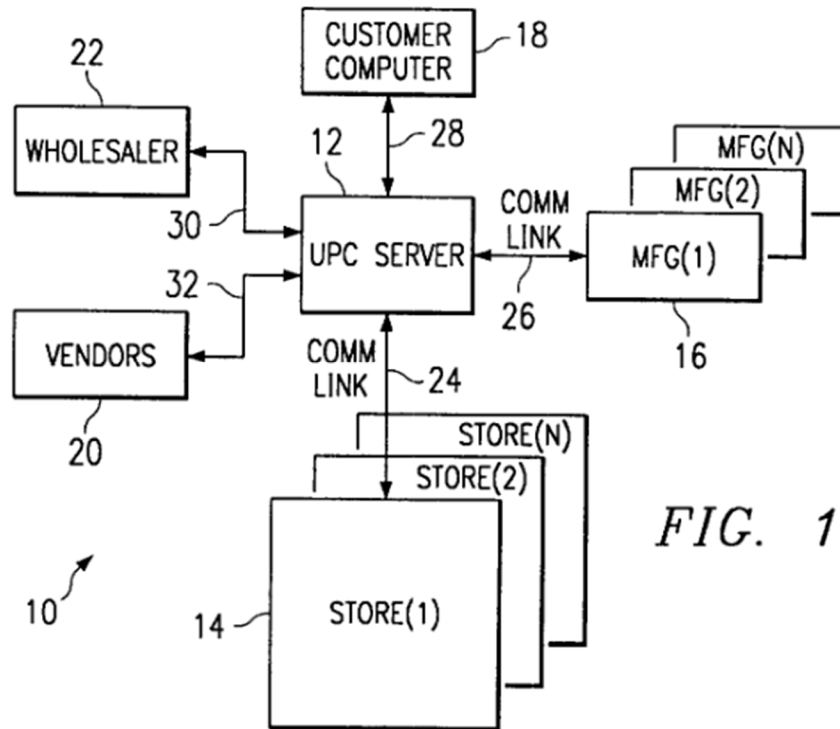


FIG. 1

In system 10, “UPC server 12 [is] connected to one or more stores 14 by a communication link 24.” Ex-1004, 3:32-35; Ex-1003, ¶54. Manufacturers 16 are also connected to UPC server by communication link 26. Ex-1004, 3:35-37; Ex-1003, ¶54. Deaton discloses that point-of-sale information, such as UPC codes or customer IDs, “obtained at store 14 [are] communicated on a substantially real-time basis to UPC server 12.” Ex-1004, 3:47-49; Ex-1003, ¶54.

Figs. 2B and 2C show the details of store 14. Ex-1004, 2:44-47; Ex-1003, ¶55.

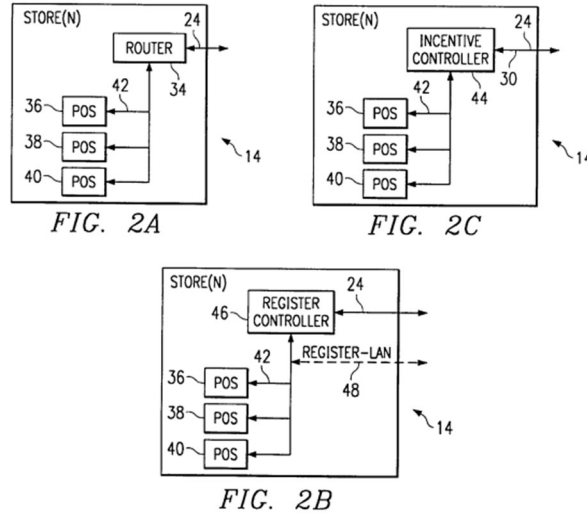


Fig. 2B shows a store with a “register controller” that “operates to provide information to points-of- sale 36, 38, and 40 related to product prices and descriptions and, in addition, transmits point-of-sale information to manufacturers 16 over communication link 24” Ex-1004, 4:35-44. In addition, the register controller 46 receives information from “manufacturers 16 for delivery to the customer at the points-of- sale 36, 38, 40.” Ex-1004, 4:34-46; Ex-1003, ¶56.

Fig. 2C shows a store with an “incentive controller” that “receives point-of-sale information directly from points-of- sale 36, 38, and 40 on a substantially real-time basis over, for example, communication link 42.” Ex-1004, 4:53-60. The incentive controller 44 then “transmits the point-of-sale information on a substantially real-time basis over communication link 24 to UPC server 12.” Ex-1004, 4:60-63. The incentive controller 44 may also “provide incentives, such as redeemable coupons or a written notification of a future product discount or

advertising message, to customers at points of sale 36, 38, 40.” Ex-1004, 4:66-5:3; Ex-1003, ¶57.

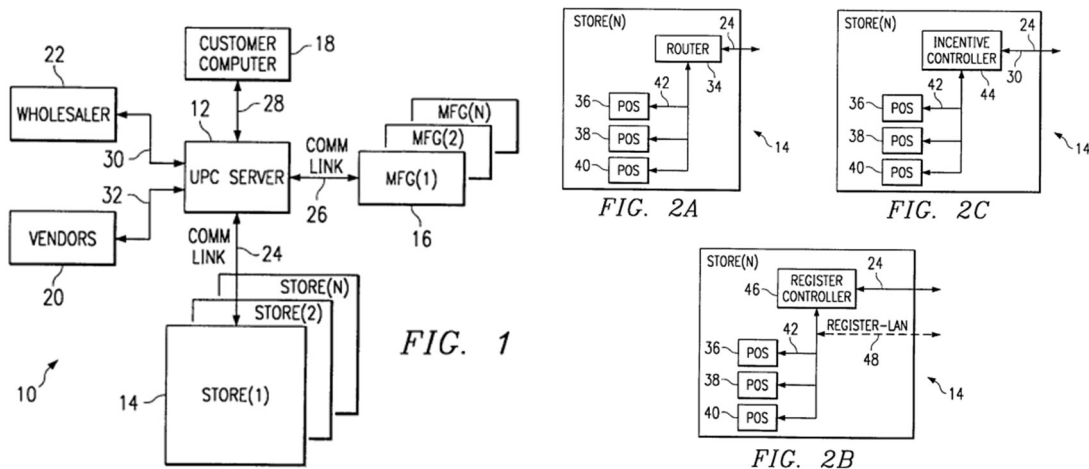
Deaton further explains that “[i]n response to receiving information from the point-of-sale, manufacturer 16 may communicate, through UPC server 12, incentives to be communicated to a customer of store 14.” Ex-1004, 4:43-5:46. In addition, Deaton explains “[i]t should be understood that although a particular configuration of store 14 is illustrated in FIG. 2D, other configurations may be utilized.” Ex-1004, 6:5-11; Ex-1003, ¶58.

2. Detailed Analysis of Ground 1

a) Claim 1

- (1) Elements [1pre] to [1d]: A system, comprising:
an Intelligent Clearing Network (ICN) network;
at least two point-of-sale (POS) terminals; at
least two POS controllers, where each POS
controller is configured to communicate with a
plurality of the at least two POS terminals; and
an ICN server configured to communicate with
the at least two POS controllers,**

Deaton teaches a “system” comprising an ICN network with at least two point-of-sale (“POS”) terminals, at least two POS controllers configured to communicate with the POS terminals, and an ICN server configured to communicate with the two POS controllers. Ex-1004, 3:32-46; 4:53-65; Figs. 1, 2 (reproduced below); Ex-1003, ¶75.



As seen in the figures above, Deaton discloses a system comprising a network (the combination of links 24, 26, 28, 30 and 32) that serves as an ICN network. The system further comprises with an “ICN server” (labeled as “UPC server 12” above) with “at least two POS controllers” (labeled as “incentive controller 44” and “register controller 46” above, individually and collectively serving as POS controllers with multiple such components indicated in Figure 1) connected to “at least two POS terminals” (labeled as “POS [36, 38, and 40]” above and indicated to be multiple in Figures 1 and 2A, B and C). Ex-1004, Figs. 1-2; 3:32-35 (“FIG. 1 is a block diagram of a system 10 for providing point-of-sale information to a manufacturer 16. System 10 includes a UPC server 12 connected to one or more stores 14 by a communication link 24.”); 4:35 52 (“FIG. 2B is a block diagram of a store 14 showing alternative details of a portion of system 10 for providing point-of-sale information to manufacturer 16. ...In this embodiment, register controller 46

operates to provide information to points-of- sale 36, 38, and 40 related to product prices and descriptions and, in addition, transmits point-of-sale information to manufacturers 16 over communication link 24.”); 4:53-65 (“FIG. 2C is a block diagram of store ... In this embodiment of store 14, router 34 is replaced with an incentive controller 44. Incentive controller 44 receives point-of-sale information directly from points-of- sale 36, 38, and 40 on a substantially real-time basis over, for example, communication link 42.”); Ex-1003, ¶76.

- (2) **Element [1e]: wherein a POS terminal of the at least two POS terminals is located at a retail store and is configured to scan, at a point-of-sale (POS) terminal, first coupon or incentive related information including universal product code information of an item to be purchased, and to transmit the first coupon or incentive related information at the POS terminal to a POS controller of the at least two POS controllers;**

Deaton teaches that a POS terminal is located at a retail store and is configured to scan a first coupon or incentive related information (the “first information”), including UPC information about the product. Ex-1004, 6:16-17 (“FIG. 3 is a block diagram of particular examples of points-of- sale 36, 38, and 40...”); 6:21-30 (“Point-of-sale 36 includes an electronic cash register 50. Electronic cash register 50 receives a signal indicative of the bar code of an item scanned by a scanner 52. A scanned item may include a product for purchase, a coupon being redeemed, or other

suitable item bearing a scannable code. Based upon the signal indicative of the UPC bar code, a price is associated with the scanned item as well as a description of the scanned item.”); Ex-1003, ¶77.

Deaton further teaches that the POS terminals transmit the first information to a POS controller. Ex-1004, 4:57-60 (“Incentive controller 44 receives point-of-sale information directly from points-of- sale 36, 38, and 40 on a substantially real-time basis over, for example, communication link 42”); 4:39-44 (“register controller 46 operates to provide information to points-of- sale 36, 38, and 40 related to product prices and descriptions and, in addition, transmits point-of-sale information to manufacturers 16 over communication link 24.”); Ex-1003, ¶78.

(3) Element [1f]: the POS controller is configured to transmit the first coupon and/or incentive related information to the ICN server via the network, where the ICN server is at a location that is remote from the retail store; and

Deaton teaches that the POS controller is configured to transmit the first information to the server via the network, where the server is at a location that is remote from the retail store. Ex-1004, Fig. 1; 1:50-56 (“According to one embodiment of the invention, a method for use in marketing includes detecting, at the point-of-sale, a plurality of Uniform Product Codes associated with respective items purchased by a customer and transmitting, on a substantially real-time basis, the plurality of Uniform Product Codes over the Internet to a remote computer

connected to the Internet.”); 4:39-44 (“register controller 46 operates to provide information to points-of-sale 36, 38, and 40 related to product prices and descriptions and, in addition, transmits point-of-sale information to manufacturers 16 over communication link 24.”); 4:60-63 (“Incentive controller 44 receives point-of-sale information directly from points-of- sale 36, 38, and 40 on a substantially real-time basis over, for example, communication link 42”); 5:39-43 (“Incentive controller 44 is connected to kiosk 47 by communication link 51. According to the teachings of the invention, point-of-sale information is communicated through communication link 24 to UPC server 12. Such information is then communicated to a manufacturer 16.”); 14:4-9 (“a remote computer connected to the Internet, the computer comprising a processor, a storage medium connected to the processor, and a computer program stored on the storage medium, the remote computer located remote from the store in which the electronic cash register is located”); Ex-1003, ¶79.

As Deaton explains and shows in Fig. 1, the controllers transmit information to the manufacturers via the UPC server (i.e., the ICN server) via the network. Ex-1004, Fig. 1; Ex-1003, ¶80.

- (4) **Element [1g]: the ICN server is configured to validate the first coupon or incentive related information for redemption based at least in part on the universal product codes of items to be purchased and, in response to validating the first coupon or incentive related information, to transmit to the POS terminal, via the POS controller, second coupon or incentive related information**

Deaton teaches that the server can be configured to validate the first information based at least in part on the UPC codes of the items. Ex-1004, 5:4-7 (“Incentive controller 44 may also be used in validating product purchases in conjunction with products offered at a discount or for products for which coupons are redeemed.”); 10:63-65 (“FIG. 9 is a block diagram illustrating the use of UPC server in facilitating coupon redemption validation and electronic crediting.”); 11:4-12 (“the manufacturer may verify the proper redemption of a manufacturer coupon and provide an appropriate credit to store 14. Such redemption verification includes verifying that the product associated with the coupon is actually purchased. Verification may also include verifying the price at which the product was purchased. In addition, for incentives associated with a particular customer, the identity of the person receiving a discount may be verified”); 11:12-16 (“Alternatively, UPC server 12 may include circuitry and/or software 70 for also performing this validation and for providing manufacturer 16 of a summary of the

number and amount of coupons redeemed for the particular manufacturer”); Ex-1003, ¶81.

The server in Deaton may store electronic discounts, and when the customer is identified as purchasing a product associated with the discount (i.e., validating . . . the first coupon or incentive related information by performing a comparison of the first coupon or incentive related information based at least in part on the universal product code information), the discount may be sent to the store for application. For example, Deaton discloses that “discounts may be electronically stored on UPC server 12 . . . for subsequent access by the customer. The electronic discounts may also communicate to store 14 for application when the customer is identified purchasing the product associated with the discount.” Ex-1004, 12:65-13:3; Ex-1003, ¶82.

Deaton also discloses that in response to validating the first information, the server, via the manufacturer, transmits to the POS terminal via the POS controller second coupon or incentive related information (the “second information”). Ex-1004, 4:44-49 (“register controller 46 receives information from manufacturers 16 for delivery to the customer at the points-of- sale 36, 38, 40”); 4:66-5:4 (“incentive controller 44 may provide incentives, such as redeemable coupons or a written notification of a future product discount or advertising message, to customers at points of sale 36, 38, 40, recommend such incentives to manufacturer 16, or process

incentives generated by manufacturer 16”); 5:39-48 (“In response to receiving information from the point-of-sale, manufacturer 16 may communicate, through UPC server 12, incentives to be communicated to a customer of store”); *see also* Fig. 1; Ex-1003, ¶84.

To the extent that Patent Owner argues that a particular configuration in Deaton differs from the claimed system, Deaton further teaches that the UPC server may be implemented in many forms and that although a particular configuration of a store is illustrated, other configurations may be utilized. Ex-1004, 6:5-7 (“It should be understood that although a particular configuration of store 14 is illustrated in FIG. 2D, other configurations may be utilized, including combining register controller 46 and incentive controller 44 into a single integrated device, combining incentive controller 44 and kiosk 47 into a single integrated device, and eliminating redundant communication links.”); 7:7-8 (“FIG. 4A is a block diagram of one example of UPC server 12. UPC server 12 may be implemented in many forms.”); Ex-1003, ¶85.

A POSITA would have found it obvious based on this teaching to reconfigure the various components of the system in Deaton to meet the claimed system and would have had a reasonable expectation of success in doing so because the systems described are basic computer components like servers, networks and terminals. Ex-1003, ¶86.

Therefore, Deaton discloses, and/or renders obvious, claim 1. Ex-1003, ¶87.

b) Claim 2

The ICN server disclosed in Deaton (e.g., the “UPC server”) is a coupon or incentive processing server. Ex-1004, 11:12-16 (“UPC server 12 may include circuitry and/or software 70 for also performing this validation and for providing manufacturer 16 of a summary of the number and amount of coupons redeemed for the particular manufacturer”); *see also* Ex-1004, 3:32-46; 9:30-34; Ex-1003, ¶88.

The Deaton system also comprises a POS terminal communicatively coupled to the ICN network and ICN server through a retailer’s POS controller. Ex-1004, 3:32-46; 4:53-65; Figs. 1, 2. The POS controller and POS terminal in Deaton are also computer systems capable of connecting over the internet, and therefore, include ICS POS bridge software bridging the two systems. Ex-1004, 1:46-56; 3:32-46; Ex-1003, ¶89.

To the extent Deaton does not explicitly disclose ICN POS bridge software installed on the POS terminals and controllers, a POSITA would have found it obvious to modify Deaton to include such software. Ex-1003, ¶90. Indeed, Deaton teaches that the UPC server was comprised of software. Ex-1004, 7:13-18 (“UPC server software 70 may be executed by processor 60 while stored in memory 64. Alternatively, UPC server software may be executed from storage area 62. UPC server software 70 contains software coding sufficient to execute functions

performed by UPC server 12 described in greater detail below”). 10:25-29; 10:41-45; 10:57-62; 11:12-16. Based on this teaching, a POSITA would have understood that software would be installed on the POS controllers and POS terminals as well, and would have had a reasonable expectation of success since Deaton explains that software can be installed on its systems. Ex-1003, ¶90.

Therefore, Deaton discloses, and/or renders obvious, claim 2; Ex-1003, ¶91.

c) Claim 3

Deaton discloses a manufacturer server that is communicatively coupled to the ICN server – namely the manufacturer element 16 identified in the figures that is shown to be a server because it is shown as connected to the network and described as communicating over the network. Ex-1004, Fig. 1, 3:32-46 (“FIG. 1 is a block diagram of a system 10 for providing point-of-sale information to a manufacturer 16. System 10 includes a UPC server 12 connected to one or more stores 14 by a communication link 24.”); 4:53-65; Ex-1003, ¶92.

A POSITA would have understood that the information transmitted from the UPC server to a manufacturer would have been transmitted to the manufacturer’s server. Ex-1003, ¶93. Indeed, Deaton explains that the manufacturer is capable of performing the functions that use hardware and software elements. Ex-1004, 11:4-5 (“the manufacturer may verify the proper redemption of a manufacturer coupon”); 11:12-13 (“UPC server 12 may include circuitry and/or software 70 for also

performing this validation”); Ex-1003, ¶93. In addition, the ICN server in Deaton would have exchanged information in real-time with the manufacturer, which would have required the server to be communicatively coupled to the manufacturer’s server. Ex-1004, 8:6-9 (“After point-of-sale information is received by UPC server 12, point-of-sale information is transmitted on a substantially real-time basis over communication link 26 to manufacturer 16”); Ex-1003, ¶94.

To the extent Deaton does not explicitly disclose a manufacturer’s server communicatively coupled to the ICN server, such a configuration would have been obvious over Deaton. Ex-1003, ¶95. For example, the Deaton system explains that the ICN server is coupled to the manufacturer and transmits information in real-time to the manufacturer. Ex. 1004, Fig. 1; 8:6-9 (“After point-of-sale information is received by UPC server 12, point-of-sale information is transmitted on a substantially real-time basis over communication link 26 to manufacturer 16”). A POSITA would have found it obvious to communicatively couple the ICN server to the manufacturer’s server to provide such real-time exchange of information. Ex-1003, ¶95.

Therefore, Deaton discloses, and/or renders obvious, claim 3. Ex-1003, ¶96.

d) Claim 4

Deaton teaches that the first coupon related information includes at least the universal product code for the purchased product, store information, and customer

IDs. Ex-1004, 3:46-59 (“Such point-of-sale information may include UPC codes for purchased products, UPC codes for redeemed coupons, prices of purchased products, other suitable identifications of purchased products, and other suitable data obtained at the point-of-sale, including codes not currently used. Additional point-of-sale information may include a store identification such as an Internet address, the register or lane number, and additional data such as lines of print sent to the receipt tape, smart card contents, customer IDs, and receipt lines including item description, quantity, and price, and receipt total.”); 3:60-67 (“The entire contents of a customer's smart card may also be provided to UPC server 12. In addition, payment instrument data such as credit card number, check number, and debit card number may be transferred. Such numbers may be used as unique customer identification codes for identifying particular customers. The identification of particular customers allows determining what products a particular customer purchases, which may be used in marketing.”); Ex-1003, ¶¶97-98.

Therefore, Deaton discloses, and/or renders obvious, claim 4. Ex-1003, ¶99.

e) Claim 5

Deaton discloses that the first information includes a control number (e.g., a “unique identification number”) that the customer may print on the customer’s computer. Ex-1004, 13:8-11 (“The customer may then print the redeemable coupon on a printer associated with customer computer 18. Such a coupon may include a

unique identification number that is available at store 14 to prevent unlawful duplication of redeemable coupons”). A POSITA would have understood that the printed coupon was downloaded on the customer computer and therefore it was provided “through a downloaded coupon.” Ex-1003, ¶100.

Therefore, Deaton discloses, and/or renders obvious, claim 5. Ex-1003, ¶100.

f) Claim 6

Deaton teaches that the first information includes customer identification information (e.g., “customer IDs”). Ex-1004, 3:46-67 (“Additional point-of-sale information may include ... customer IDs ... In addition, payment instrument data such as credit card number, check number, and debit card number may be transferred. Such numbers may be used as unique customer identification codes for identifying particular customers.”). Therefore, Deaton discloses, and/or renders obvious, claim 6. Ex-1003, ¶101.

g) Claim 7

Deaton teaches that the second coupon or incentive related information includes UPC coupon codes. Ex-1004, 3:46-67 (“a manufacturer may offer a customer a coupon for a product in response to the customer’s purchase of particular products”); 10:65-66 (“coupons are marked with a Uniform Product Code”); *see also* 5:43-46. In addition, Deaton teaches that the system may be used with “other types of codes representative of products, including existing codes.” Ex-1004, 13:48-52.

A POSITA would have known that GS1 coupon code would have been contemplated as a “type[] of code representation of products.” Ex-1003, ¶102. Therefore, Deaton discloses, and/or renders obvious, claim 7. Ex-1003, ¶102.

h) Claim 8

Deaton teaches that the second information includes a coupon offer code from the manufacturer. Ex-1004, 3:46-67 (“a manufacturer may offer a customer a coupon for a product in response to the customer’s purchase of particular products”). Ex-1003, ¶103.

Deaton explains that additional such point-of-sale information “may include UPC codes for purchased products, UPC codes for redeemed coupons, prices of purchased products, other suitable identifications of purchased products, and other suitable data obtained at the point-of-sale, including codes not currently used.” Ex-1004, 2:16-17. A POSITA reading Deaton would understand that the second coupon information could include additional codes as identifiers, including an application identifier and a product number system character (e.g., “UPC codes for purchased products, UPC codes for redeemed coupons, prices of purchased products, other suitable identifications of purchased products”), and a household identifier (e.g., a “customer ID”), because Deaton was concerned with “respond[ing] to market conditions,” and such identifiers could be used to better assess the market. Ex-1004, 2:16-17; Ex-1003, ¶104. Also, it would have been obvious to transmit an expiration

date so that the store could know if the coupon had expired. Ex-1003, ¶104. In addition, determining the expiration of a coupon would be part of the process of validation, which as explained above, the Deaton system performed. Ex-1003, ¶104.

Therefore, Deaton discloses, and/or renders obvious, claim 8. Ex-1003, ¶105.

i) Claim 9

Deaton discloses that the ICN server is associated with a storage device and memory device, and as such, the server is coupled to a centralized database. Ex-1004, 7:7-11 (“UPC server 12 includes a processor 60 associated with a storage device 62 and a memory device 64.”). As explained above, the server provides second information when the server receives second information that it retrieves from its centralized database. *See supra* Claim 1; Ex-1003, ¶106.

To the extent that Deaton does not receive the second coupon or incentive information from the centralized database, a POSITA would have found it obvious to retrieve and store such information from the manufacturer in a centralized database. Ex-1003, ¶107. Deaton explains that the manufacturers in the system provide information on a real-time basis to particular customers. Ex-1004, 8:6-9 (“a manufacturer may provide customer incentives, such as redeemable coupons, on a real-time basis to particular customers identified to the manufacturer through substantially real-time purchasing data. Such an ability allows a manufacturer, for example, to market its products to purchasers of competing products..”). A POSITA

would have understood that there can be delays in communicating with different nodes of the network, and would have been motivated to store some of the information in a centralized database so that the ICN server can provide information to the customer in real-time. Ex-1003, ¶107. A POSITA would have also had a reasonable expectation of success in using a centralized database to retrieve second information because the system in Deaton already included such a database. Ex-1003, ¶107.

Therefore, Deaton discloses, and/or renders obvious, claim 9. Ex-1003, ¶108.

j) Claim 10

Deaton discloses tabulating raw data of at least one of coupon and incentive processing transactions for the manufacturer. For example, Deaton discloses that the UPC server is able to “provid[e] manufacturer 16 of a summary of the number and amount of coupons redeemed for the particular manufacturer.” Ex-1004, 11:12-18. A POSITA would understand that the “coupons redeemed for the particular manufacturer” is the raw data of coupon and incentive processing transactions, and that the summary Deaton provides tabulates such data for the manufacturer. Ex-1003, ¶109.

Similarly, Deaton discloses that the server receives information received from the POS controllers (i.e., “raw data of at least one of coupon and incentive processing transactions) and filters that data (i.e., “tabulat[es] the raw data”) for the

manufacturer. Ex-1004, 9:30-35 (“FIG. 6 is a block diagram illustrating additional details of one example of UPC server 12 showing UPC server 12, showing units for receiving information, filtering that information, and distributing the filtered information to appropriate manufacturers 16”); Ex-1003, ¶110.

Therefore, Deaton discloses, and/or renders obvious, claim 10. Ex-1003, ¶110.

k) Claim 11

As explained for Claim 10, Deaton discloses that the server tabulates raw data. *See supra* Claim 10; Ex-1003, ¶111. Deaton further discloses that the raw data is tabulated in the form of a report (e.g., “a summary of the number and amount of coupons redeemed for the particular manufacturer.”). Ex-1004, 11:12-18; Ex-1003, ¶112. Deaton discloses that after information is received by the server, the information is transmitted to the manufacturer on a real-time basis. Ex-1004, 8:6-9 (“After point-of-sale information is received by UPC server 12, point-of-sale information is transmitted on a substantially real-time basis over communication link 26 to manufacturer 16”); 4:1-3 (“The communicated information is then made available on a substantially real-time basis to manufacturers 16, vendors 20, wholesalers 22, and other appropriate clients.”); *see also* 1:47-54; 4:13-21; 4:57-63; 10:13-17; 10:53-57. Based on these disclosures, a POSITA would have understood that the system in Deaton was concerned with sending information to the

manufacturer in real-time and would have sent the reports that it produced to the manufacturer as so. Ex-1003, ¶112. Therefore, Deaton discloses, and/or renders obvious, claim 11. Ex-1003, ¶112.

l) Claims 12 and 13

Deaton teaches that its system can be implemented over the Internet, and specifically describes using the World Wide Web for communications. Ex-1004, 3:45-46 (“According to one embodiment of the invention, communications links 24, 26, 30, and 32 utilize the Internet.”); 7:50-52 (“According to one embodiment, communication link 24 provides Internet access to store 14 and therefore, connects UPC server 12 to store 14 via the Internet.”); *see also* 1:46-56; 8:9-14; 11:65-66. Further, Deaton explains that network can be connected through a website and thus would communicate to the website over the world wide web. Ex-1004, 13:13-15 (“a manufacturer may communicate product discounts to store web site 124, through UPC server 12, for viewing by customers.”). Therefore, Deaton discloses, and/or renders obvious, claims 12 and 13. Ex-1003, ¶¶113-114.

m) Claim 14

Deaton teaches that at least two POS terminals are connected to the POS controller (e.g., the “incentive controller”), which receives “point-of-sale information” directly from the POS terminals. Ex-1004, 4:57-58; Ex-1003, ¶115. The point-of-sale information can include “UPC codes for redeemed coupons” (i.e.,

“third coupon or incentive related information”). Ex-1004, 3:49-51. A POSITA would understand that UPC codes were transmitted upon successful redemption of a coupon (i.e., “redeemed coupon”). A POSITA reading Deaton would understand that information regarding such information was received from the POS terminals through a bridge software. Ex-1003, ¶115; *see supra* Claims 1-2. Therefore, Deaton discloses, and/or renders obvious, claim 14. Ex-1003, ¶115.

n) Claim 15

Deaton teaches that “point-of-sale information obtained at store 14 is communicated on a substantially real-time basis to UPC server 12,” which is communicated via the POS controllers. Ex-1004, 1:47-49; Ex-1003, ¶116. Deaton explains that such point-of-sale information “may include UPC codes for purchased products, UPC codes for redeemed coupons, prices of purchased products, other suitable identifications of purchased products, and other suitable data obtained at the point-of-sale, including codes not currently used” (i.e., identification information from the product purchased and the GS 1 coupon code of the second coupon related information) and that “[a]dditional point-of-sale information may include a store identification such as an Internet address, the register or lane number, and additional data such as lines of print sent to the receipt tape, smart card contents, customer IDs, and receipt lines including item description, quantity, and price, and receipt total”

(i.e., retailer identification information). Ex-1004, 1:49-59; Ex-1003, ¶116. Therefore, Deaton discloses, and/or renders obvious, claim 15. Ex-1003, ¶116.

o) Claim 16

Deaton discloses that the third coupon related information (e.g., information regarding redeemed coupons) is used by the UPC server to generate a summary of the number and amount of coupons redeemed for the manufacturer (i.e., a “report to the manufacturer whose product was purchased through redemption of the coupon code”); *see supra* Claim 14; Ex-1003, ¶117. For example, Deaton discloses that the UPC server is able to “provid[e] manufacturer 16 of a summary of the number and amount of coupons redeemed for the particular manufacturer.” Ex-1004, 11:12-18; Ex-1003, ¶117. Therefore, Deaton discloses, and/or renders obvious, claim 16. Ex-1003, ¶117.

p) Claim 17

Deaton teaches that the POS controller transmits second information to the POS terminal (*see supra* Claim 1) using ICN POS bridge software (*see supra* Claim 2). Therefore, Deaton discloses, and/or renders obvious, claim 17. Ex-1003, ¶118.

q) Claims 18 and 19

Deaton teaches that the network can be configured to be a virtual private network and a high speed dedicated communication line. For instance, Deaton teaches that “communication link 26 is an Internet connection between

manufacturers 16 and UPC server 12; however, other suitable connections may be established including satellite links, wireless communications, phone lines, and dedicated lines.” Ex-1004, 7:10-14; Ex-1003, ¶119. A POSITA would understand that the network in Deaton could be configured using “other suitable connections,” including a virtual private network and a high speed dedicated communication line. Ex-1003, ¶119.

To the extent that using a virtual private network is not taught in Deaton, using such a network would have been obvious to a POSITA. Deaton explains that its network can be configured as a “local area network,” which a POSITA would understand could be a private network as well as a high speed dedicated communication line. Ex-1004, 4:49-52; 7:57-65; Ex-1003, ¶120. Using a virtual private network or a high speed dedicated communication line would have been obvious to a POSITA because it would have been more secure, efficient and reliable. Ex-1003, ¶120. Therefore, Deaton discloses, and/or renders obvious, claims 18 and 19. Ex-1003, ¶120.

r) Claim 20

As explained in claim 14, the POS terminal transmits third coupon related information to the POS controller upon successful redemption of a coupon or incentive. *See supra* claim 14; Ex-1003, ¶122. Deaton further teaches that the POS controller transmits such “information on a substantially real-time basis over

communication link 24 to UPC server 12.” Ex-1004, 4:60-63. Therefore, Deaton discloses, and/or renders obvious, claim 20. Ex-1003, ¶¶122.

s) Claims 21 and 22

The POS controller and terminal in Deaton are computer systems capable of connecting over the internet, and therefore, included software that was physically installed. Ex-1004, 1:46-56; 3:32-46; *see supra* Claim 2; Ex-1003, ¶123. Deaton further teaches that the POS behavior is controlled (e.g., the POS provides customer incentives) based on information received from manufacturers via the ICN server. Ex-1004, 6:54-57 (The POS “may receive information generated by manufacturers 16 for providing to a customer at point-of-sale 36, such as customer incentives.”); Ex-1003, ¶123.

Also, Deaton discloses that multiple configurations of its stores “may be utilized.” Ex-1004, 6:5-15. As such, a POSITA would have understood that Deaton teaches its system would have software that is configurable and configurable for each store. Ex-1003, ¶124. Therefore, Deaton discloses, and/or renders obvious, claims 21 and 22. Ex-1003, ¶124.

t) Claim 23

The system in Deaton includes a server connected to one or more different manufacturers, vendors, and wholesalers. Ex-1004, 3:32-46; Fig. 1; Ex-1003, ¶125. Because Deaton relates to the purchase of goods over the Internet, the system in

Deaton would necessarily have been connected to a financial institution server. Ex-1003, ¶125. Indeed, Deaton teaches that the “UPC server 12 facilitates electronic settlement of credit and debits between store 14 and manufacturer.” Ex-1004, 11:19-22; Ex-1003, ¶125.

But to the extent it is found that such a system was not necessarily present, a POSITA would have found it obvious to couple a originating financial institution server to the server disclosed in Deaton, which facilitated purchases through the Internet. Ex-1003, ¶126. A POSITA would have also had a reasonable expectation of success because Deaton already describes a system capable of electronically settling credits and debits between the store and manufacturer. Ex-1004, 11:19-22; Ex-1003, ¶126.

Therefore, Deaton discloses, and/or renders obvious, claim 23. Ex-1003, ¶126.

u) Claim 29

Deaton discloses that the second information is transmitted by the server to the stores in response to the first information, and as such, the first information in Deaton, which includes universal product codes, are trigger universal product codes. Ex-1004, 4:44-49 (“In addition, register controller 46 receives information from manufacturers 16 for delivery to the customer at the points-of- sale 36, 38, 40.”); 5:39-48 (“In response to receiving information from the point-of-sale, manufacturer

16 may communicate, through UPC server 12, incentives to be communicated to a customer of store 14.”); 3:49-54 (“point-of-sale information may include UPC codes for purchased products, UPC codes for redeemed coupons, prices of purchased products, other suitable identifications of purchased products, and other suitable data obtained at the point-of-sale, including codes not currently used”); Ex-1003, ¶128.

In addition, Deaton teaches that the controller “may also be used in validating product purchases in conjunction with products offered at a discount or for products for which coupons are redeemed” (Ex-1004, 5:4-7), and that a “manufacturer may offer a customer a coupon for a product in response to the customer’s purchase of particular products” (Ex-1004, 6:57-59). Ex-1003, ¶129.

Therefore, Deaton discloses, and/or renders obvious, claim 29. Ex-1003, ¶129.

v) Claims 30 and 31

Deaton teaches that a “manufacturer may offer a customer a coupon for a product in response to the customer’s purchase of particular products” (Ex-1004, 6:57-59. A POSITA would have understood from this teaching that particular products (e.g., products that correspond to trigger universal product codes) may correspond to a coupon for another product. Ex-1003, ¶130. In addition, a POSITA would have understood that the manufacturer could offer a coupon for a product that is not based on the said purchase of particular products. Ex-1003, ¶130.

Therefore, Deaton discloses, and/or renders obvious, claims 30 and 31. Ex-1003, ¶130.

w) Claim 32

(1) Element [32pre]

Deaton teaches a method for processing at least one of coupons and incentives. *See* Ex-1004, 1:50-56 (“According to one embodiment of the invention, a method for use in marketing includes detecting, at the point-of-sale, a plurality of Uniform Product Codes associated with respective items purchased by a customer and transmitting, on a substantially real-time basis, the plurality of Uniform Product Codes over the Internet to a remote computer connected to the Internet.”); *see supra* Claim 1; Ex-1003, ¶¶131-132.

(2) Element [32a]

Deaton teaches scanning via a first interface (e.g., the POS terminal) first coupon or incentive related information including universal product code information of an item to be purchased. *See supra* claim 1, Element [1e]; Ex-1003, ¶133.

(3) Element [32b]

Deaton teaches transmitting via a second interface (e.g., the “incentive controller”) the first coupon information to the coupon processing server (e.g., the “UPC server”) for validation and redemption where the server is located remotely

from the retail store. *See supra* claim 1, Element [1f]; Ex-1003, ¶134. The POS terminal (i.e., the first interface) is different from the POS controller (i.e., the second interface) in Deaton. Ex-1004, Fig. 1; Ex-1003, ¶134.

(4) Element [32c]

Deaton teaches that the coupon or incentive processing server (e.g., the “UPC server”) can be configured to validate the first coupon information, which includes the universal product code of items to be purchased. Ex-1004, 10:63-65 (“UPC server includes circuitry and/or software for facilitating both coupon redemption validation”); 11:12-16 (“UPC server 12 may include circuitry and/or software 70 for also performing this validation”); *see supra* claim 1, Element [1g]. In addition, Deaton teaches that second coupon related information can be transmitted from the manufacture via the UPC server through the incentive controller to the POS terminal. *See supra* claim 1, Element [1g]; Ex-1003, ¶135.

Deaton further discloses that after verifying the proper redemption of a coupon, the system provides an appropriate credit to the store, which would indicate whether the coupon or incentive processing server has validated the first coupon information. Ex-1004, 11:4-7 (“the manufacturer may verify the proper redemption of a manufacturer coupon and provide an appropriate credit to store 14. Such redemption verification includes verifying that the product associated with the

coupon is actually purchased.”); 11:12-13 (“UPC server 12 may include circuitry and/or software 70 for also performing this validation”). Ex-1003, ¶136.

To the extent that Deaton does not teach transmitting information indicating that the coupon was validated, a POSITA would have found it obvious to modify Deaton to transmit such information because the store and customer would need to know whether the coupon is valid to properly redeem the coupon. Ex-1003, ¶137.

Therefore, Deaton discloses, and/or renders obvious, claim 32. Ex-1003, ¶138.

x) Claim 33

Deaton discloses that the corresponding coupon or incentive information is redeemed if the terminal validates the second information. Ex-1004, 10:51-11:6 (“manufacturer may verify the proper redemption of a manufacturer coupon and provide an appropriate credit to store 14” and the “UPC server 12 may include circuitry and/or software 70 for also performing this validation”). Therefore, Deaton discloses, and/or renders obvious, claim 33. Ex-1003, ¶139.

y) Claim 34

Deaton teaches deactivating the coupon when the coupon information is received. Ex-1004, 13:11-15 (“Once a coupon having a unique identification number is redeemed, no other coupons having that same number will be redeemed.”) Therefore, Deaton discloses, and/or renders obvious, claim 34. Ex-1003, ¶140.

z) Claim 35

Deaton discloses that the ICN server is associated with a storage device and memory device, and as such, information is stored in a database. Ex-1004, 7:7-11 (“UPC server 12 includes a processor 60 associated with a storage device 62 and a memory device 64.”). Deaton also teaches that information is transmitted to a manufacturer “on a substantially real-time basis.” Ex-1004, 8:6-9 (“After point-of-sale information is received by UPC server 12, point-of-sale information is transmitted on a substantially real-time basis over communication link 26 to manufacturer 16”); 4:1-3 (“The communicated information is then made available on a substantially real-time basis to manufacturers 16, vendors 20, wholesalers 22, and other appropriate clients.”); *see also* 1:47-54; 4:13-21; 4:57-63; 10:13-17; 10:53-57. Deaton also teaches making information available via a web portal and states that “discounts may be electronically stored on UPC server 12 or a web site 124 associated with store 14 for subsequent access by the customer.” Ex-1004, 12:65-67; Ex-1003, ¶141. Therefore, it would have been obvious to configure the UPC server to make the stored coupon information available to manufacturers through a web portal. Ex-1003, ¶141. Therefore, Deaton discloses, and/or renders obvious, claim 35. Ex-1003, ¶141.

aa) Claim 36

Deaton teaches that the coupon or incentive server transmits processed information to the manufacturer's server. Ex-1004, 1:31-39 ("FIG. 1 is a block diagram of a system 10 for providing point-of-sale information to a manufacturer 16."); 9:26-30 ("UPC server 12 may perform a filtering function in which only subscribed to data is transmitted to any particular manufacturer 16. Such filtering is described in greater detail below in conjunction with FIG. 6."); 11:12-18 ("UPC server 12 may include circuitry and/or software 70 for also performing this validation and for providing manufacturer 16 of a summary of the number and amount of coupons redeemed for the particular manufacturer."); *see also* 9:30-35. Therefore, Deaton discloses, and/or renders obvious, claim 36. Ex-1003, ¶142.

bb) Claim 41

Deaton discloses that clearing the processed coupon or incentive information (i.e., "verify[ing] the proper redemption of a manufacturer coupon") comprises debiting a promotion sponsor (i.e., the "retailer" (*see* Ex-1001, 26:33-34)). Ex-1004, 11:4-7 ("the manufacturer may verify the proper redemption of a manufacturer coupon and provide an appropriate credit to store 14."). Further, Deaton discloses crediting a retailer with a value of the coupons or incentives dispensed. Ex-1004, 11:16-18 ("once verified manufacturer 16 may effect a credit, demonstrated by arrow 104, directed to store 14 in the amount of the redeemed coupons.") 11:44-47

(“manufacturer 16 may provide a credit notification through UPC server 12 for transmission to store 14, thus effecting electronic settlement of temporary price reductions offered by a manufacturer and implemented by a store.”); Ex-1003, ¶143.

A POSITA would have understood that clearing the processed coupon could include a rate, including an intelligent clearing network rate and retailer credit rate because it would be expected to charge a fee to facilitate the transaction. Ex-1003, ¶144. In addition, a POSITA would have understand that crediting a retailer would necessarily mean that funds are held. Ex-1003, ¶144. To the extent that such rates and holding of funds are not disclosed in Deaton, however, a POSITA would have found such limitations obvious over Deaton. Ex-1003, ¶144. As explained above, Deaton discloses providing a credit to the store after redeeming a coupon, which would have resulted in holding funds and/or charging a fee to facilitate the transaction. Ex-1003, ¶144. Therefore, Deaton discloses, and/or renders obvious, claim 41. Ex-1003, ¶145.

cc) Claim 45

Deaton discloses, and/or renders obvious, claim 45. *See supra* Claim 29; Ex-1003, ¶146.

dd) Claims 46 and 47

Deaton discloses, and/or renders obvious, claims 46 and 47. *See supra* Claims 30 and 31; Ex-1003, ¶147.

ee) Claim 48

Deaton teaches that the first information can comprise a control code obtained by a customer who visits a website to select a coupon or incentive. Ex-1004, 12:65-15 (“Further, discounts may be electronically stored on UPC server 12 or a web site 124 associated with store 14 for subsequent access by the customer. ... Such a coupon may include a unique identification number that is available at store 14 to prevent unlawful duplication of redeemable coupons. Once a coupon having a unique identification number is redeemed, no other coupons having that same number will be redeemed. Alternatively, a manufacturer may communicate product discounts to store web site 124, through UPC server 12, for viewing by customers.”) Also, Deaton teaches that “discounts may be electronically stored on UPC server 12 or a web site 124 associated with store 14 for subsequent access by the customer.” Ex-1004, 12:65-67. Therefore, Deaton discloses, and/or renders obvious, claim 48. Ex-1003, ¶148.

ff) Claim 49

(1) Element [49pre]

The POS controller and terminal in Deaton are computer systems capable of connecting over the internet, and therefore, included a computer readable medium storing computer code for processing coupons. Ex-1004, 1:46-56; 3:32-46; Ex-1003, ¶149.

(2) Element [49a]

Deaton discloses Element [49a]. *See supra* Elements [1e]-[1f] and [32a]-[32b]; Ex-1003, ¶150.

(3) Elements [49b] and [49c]

Deaton discloses Elements [49b] and [49c]. *See supra* Claim 1, Element [1g], Claim 32, Element [32c]. The ICN server in Deaton is “is able to receive both the product Uniform Product Code and the Uniform Product Code associated with a coupon for that product. Therefore, the [UPC server] may verify the proper redemption of a manufacturer coupon and provide an appropriate credit to store 14,” and therefore, interprets and compares the first information. Ex-1004, 11:1-8; *see also* 11:12-13 (“UPC server 12 may include circuitry and/or software 70 for also performing this validation...”); Ex-1003, ¶151.

(4) Element [49d]

Deaton teaches retrieving information “from a centralized database” (*see supra* Claim 9) and “in response to validating the first coupon or incentive code, retrieving coupon or incentive codes and any corresponding target universal product codes triggered by the validation of the first coupon or incentive code from” (*see supra* Elements [1g] and [32c], Claim 45); Ex-1003, ¶152.

(5) Element [49e]

Deaton discloses Element [49e]. *See supra* Elements [1g] and [32c]; Ex-1003, ¶153. Therefore, Deaton discloses, and/or renders obvious, claim 49; Ex-1003, ¶154.

gg) Claim 50

Deaton teaches that the controller “may also be used in validating product purchases in conjunction with products offered at a discount or for products for which coupons are redeemed” and transmit such point-of-sale information to the coupon and incentive server. Ex-1004, 5:4-7. Therefore, Deaton discloses, and/or renders obvious, claim 50. Ex-1003, ¶155.

hh) Claim 51

(1) Element [51pre]

Deaton teaches a POS terminal located at a retail store with a first interface (e.g., labeled as the POS) and a second interface (e.g., the “incentive controller” and “register controller). *See supra* Elements [1a]-[1d] and [31a]-[32b]; Ex-1003, ¶156. Also, the POS controller and terminal in Deaton included processing hardware software bridging the two systems. *See supra* Claim 2; Ex-1003, ¶156.

(2) Elements [51a] and [51b]

Deaton discloses, and/or renders obvious, Elements [51a] and [51b]. *See supra* Elements [1a]-[1d] and [31a]-[32b]; Ex-1003, ¶157.

(3) Elements [51c] to [51d]

Deaton discloses, and/or renders obvious, Elements [51c] and [51d]. *See supra* Elements [1g] and [32c]; Ex-1003, ¶158. Deaton discloses that the second interface (e.g., the POS controller) transmits to the POS terminal second coupon information, including “redeemable coupons or a written notification of a future product discount or advertising message” (i.e., “promotion request message”). Ex-1004, 4:67-5:4. Deaton also discloses whether the second coupon information, which can include the promotion request message, indicates whether that coupon was validated by the manufacturer. *See supra* Elements [1g] and [32c]; Ex-1003, ¶158.

(4) Element [51e]

Deaton discloses, and/or renders obvious, Element [51e]. *See supra* Elements [1g] and [32c]; Ex-1003, ¶159.

(5) Element [52f]

Deaton discloses, and/or renders obvious, Element [51f]. *See supra* Elements [1g] and [32c]; Ex-1003, ¶160.

ii) Claim 52

Deaton teaches that the first interface is configured to communicate with a device that can read a universal product code such as a bar code scanner 52. Ex-1004, 6:21-30 (“Point-of-sale 36 includes an electronic cash register 50. Electronic

cash register 50 receives a signal indicative of the bar code of an item scanned by a scanner 52.”); Ex-1003, ¶161.

jj) Claim 53

(1) Elements [53pre] and [53a]

Deaton teaches an ICN server that includes a processor with an interface configured to communicate over a network to a plurality of POS terminals. Ex-1004, Fig. 1; 7:9-10 (“UPC server 12 includes a processor 60...”); Ex-1003, ¶162. Deaton also discloses that the server is associated with a storage device and memory device, and as such, the server is coupled to a centralized database. Ex-1004, 7:7-11. Deaton discloses, and/or renders obvious, Elements [53pre]-[53a]. *See supra* Elements [1g] and [32c]; Ex-1003, ¶162.

(2) Element [53b]

Deaton discloses, and/or renders obvious, Element [53b]. *See supra* Elements [1g] and [32c]; Ex-1003, ¶163.

kk) Claim 54

(1) Elements [54pre] and [54a]

Deaton teaches the method recited. It teaches that the ICN server receives a first message from the point-of-sale terminal over a network and that the first message includes a unique account number. Ex-1004, 3:54-65 (“[a]dditional point-of-sale information may include ... customer IDs The entire contents of a

customer's smart card may also be provided to UPC server 12. In addition, payment instrument data such as credit card number, check number, and debit card number may be transferred. Such numbers may be used as unique customer identification codes for identifying particular customers”). The POS information also includes product code information of an item to be purchased. Ex-1004, 1:47-54 (“UPC codes for purchased products, UPC codes for redeemed coupons, prices of purchased products, other suitable identifications of purchased products, and other suitable data obtained at the point-of-sale, including codes not currently used”); *see supra* Elements [1a]-[1e]; Ex-1003, ¶164.

(2) Element [54b]

Deaton describes that in response to receiving the first message, the UPC server generates incentives for a particular customer (i.e., “determin[es]... whether at least one coupon code is assigned to the unique account number”). Ex-1004, 8:34-40 (“generating incentives based on the purchases of a customer, including examination of the products purchased by the customer in past and/or present transactions or the customer's economic impact on manufacturer 16, as measured by the volume of purchases by a particular customer.”); Ex-1003, ¶165.

Deaton further explains that the coupon code comprises at least two portions – the uniform product code and the code associated with a coupon for that product. Ex-1004, 10:65-11:12 (“coupons are marked with a Uniform Product Code and thus,

bar codes scanned from a coupon may also be provided to manufacturer 16 by UPC server 12 as indicated by arrow 102. Thus, manufacturer 16 is able to receive both the product Uniform Product Code and the Uniform Product Code associated with a coupon for that product... In addition, for incentives associated with a particular customer, the identity of the person receiving a discount may be verified.”); Ex-1003, ¶166.

(3) Element [54c]

Deaton discloses, and/or renders obvious, Element [54c]. *See supra* claim 1, Elements [1g], [32c]; Ex-1003, ¶167.

(4) Element [54d]

Deaton discloses, and/or renders obvious, claim Element [54d]. *See supra* Claims 14, 20; Ex-1003, ¶168.

(5) Element [54e]

Deaton teaches that the server can provide to the manufacturer a fourth message comprising the second message of at least one coupon code that was redeemed (e.g., “providing manufacturer 16 of a summary of the number and amount of coupons redeemed for the particular manufacturer”). Ex-1004, 11:12-16; Ex-1003, ¶169.

Therefore, Deaton discloses, and/or renders obvious, claim 54. Ex-1003, ¶170.

ll) Claim 55

Deaton teaches that to receive incentives and additional information, customer can opt in by providing information in the store (i.e., “receiving an opt-in message”). *See* Ex-1004, 7:21-42. In addition, Deaton explains that the customer may be provided a coupon code assigned to the unique account number (i.e., “comprising the unique account number” and “assigning at least one opted-in coupon code to the unique account number based on the opt-in message”). Ex-1004, 13:7-11 (the customer is provided a “redeemable coupon on a printer associated with customer computer 18. Such a coupon may include a unique identification number that is available at store 14 to prevent unlawful duplication of redeemable coupons.”); Ex-1003, ¶171.

Therefore, Deaton discloses, and/or renders obvious, claim 55. Ex-1003, ¶172.

mm) Claim 56

Deaton teaches that “for incentives associated with a particular customer, the identity of the person receiving a discount may be verified.” Ex-1004, 11:9-12. As explained above, the Deaton system determines whether a coupon code is assigned to a unique account number. *See supra* Claim 54[b]. A POSITA reading Deaton would understand that assigning the coupon code to a unique account number would occur after determining the identity of the customer was verified to ensure the correct

coupon code was assigned. Ex-1003, ¶173. Therefore, Deaton discloses, and/or renders obvious, claim 56. Ex-1003, ¶173.

nn) Claim 57

(1) Elements [57pre] to [57d]

Deaton discloses, and/or renders obvious, Elements [57pre] to [57d]. *See supra* Elements [1pre]-[1d]; Ex-1003, ¶174.

(2) Element [57e]

Deaton discloses, and/or renders obvious, Elements [57e]. *See supra* Element [1e]; Ex-1003, ¶175. Deaton also teaches that a POS terminal is located at a retail store and is configured to scan a first coupon **and** incentive related information (as opposed to “or” recited in claim 1). Ex-1004, 6:19-26. Therefore, Deaton discloses, and/or renders obvious, claim 57[e]. Ex-1003, ¶175.

(3) Element [57f]

Deaton discloses, and/or renders obvious, Elements [57f]. *See supra* Elements [1f] and [57e]; Ex-1003, ¶176.

(4) Element [57g]

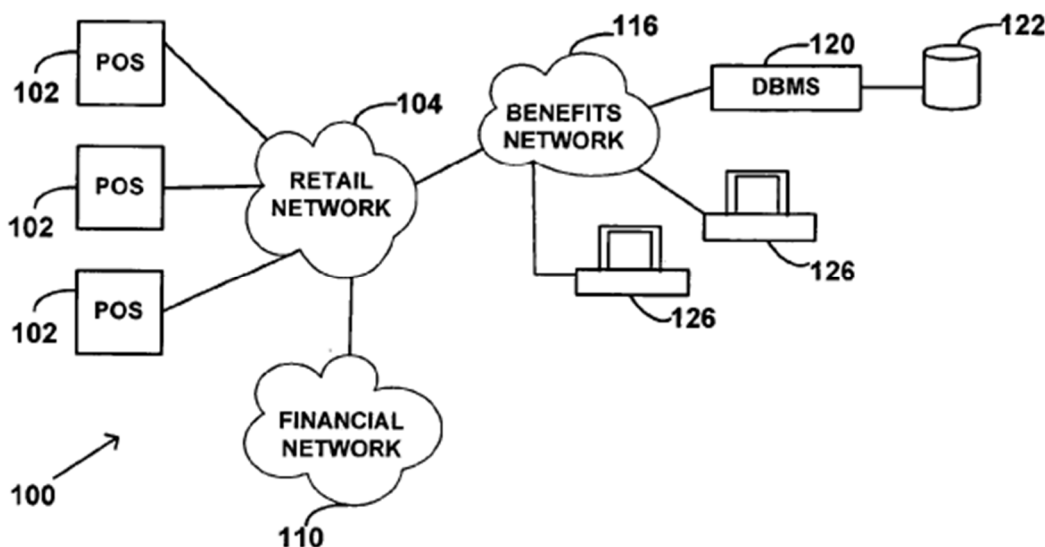
Deaton discloses, and/or renders obvious, Elements [57g]. *See supra* Elements [1g] and [57e]; Ex-1003, ¶177. Therefore, Deaton discloses, and/or renders obvious, Claim 57. Ex-1003, ¶178.

To the extent a claim and/or limitation above is found not to be taught in Deaton, such claim and/or limitation would have been obvious over Deaton alone for the reasons given above. Ex-1003, ¶179.

B. Ground 3: Claims 23-27, 38-40, and 42-43 Would Have Been Obvious Over Deaton and Brown

1. Summary of Brown (Ex-1005)

Like the '855 patent, Brown discloses a “system and method for the purchase of products, wherein a database account is credited with virtual coupons.” Ex-1005, Abstract; Ex-1003, ¶60. The “system includes a database for storing credits to the account, the credits representing virtual coupons.” Ex-1005, ¶6. When a “product is purchased, the associated coupon is debited from the account.” Ex-1005, ¶6. Figure 1 provides a “diagram showing a system for facilitating the redemption of coupon units.” Ex-1005, ¶9; Ex-1003, ¶¶61-62.



2. Motivation to Combine and Reasonable Expectation of Success

Both Deaton and Brown teach coupon systems with numerous similarities, including having information transmitted from a point-of-sale to a central sever. Ex-1003, ¶¶181-182. As a result, combining Deatons' teaching with Brown would have used known methods (sending additional information and then using that information to verify proper redemption) to improve Deaton's coupon redemption and validation system. Ex-1003, ¶181. A POSITA would have been motivated to combine the teachings from Brown with Deaton because Brown teaches a method for facilitating the purchase of products with the use of virtual coupons by connecting multiple networks, including a financial network. Ex-1005, Abstract; Ex-1003, ¶182. A POSITA would understand that like Brown, Deaton also relates to the purchase of products using coupons using an interconnected network, and would have been motivated to implement the teachings of Brown to facilitate the financial transactions. Ex-1003, ¶182.

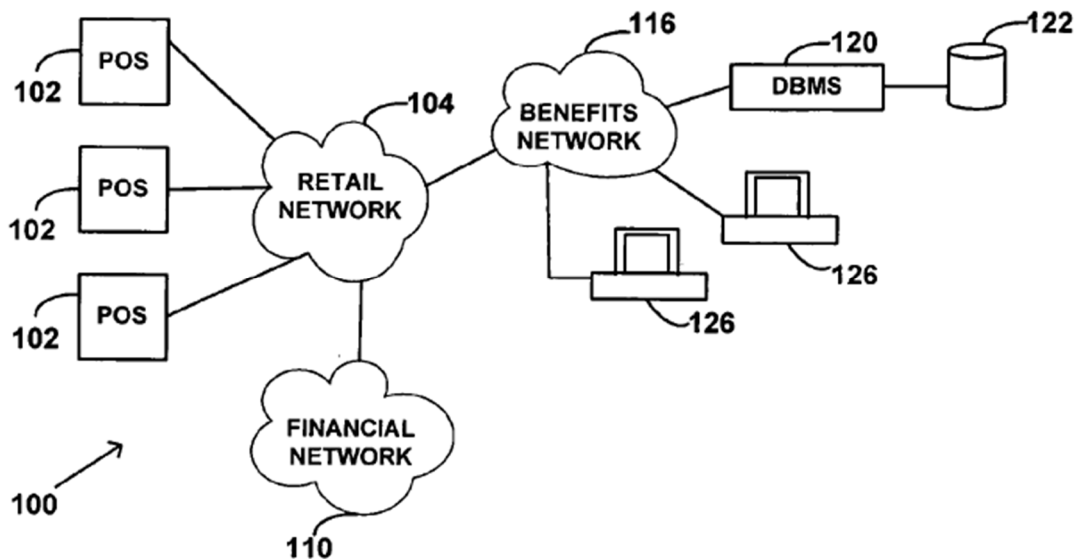
In addition, a POSITA would have reasonably been expected to succeed in combining the teachings of Deaton and Brown. Ex-1003, ¶183. Implementation of Brown's functionality would have required only routine knowledge because Deaton already contemplated that information would be sent from a point-of-sale to a central server and that the central would have performed tasks. *Id.* Such a combination

would have been straightforward, requiring only a minor modification. *Id.* Thus, a POSITA would have a reasonable expectation of success. *Id.*

3. Detailed Analysis of Ground 3

a) Claim 23

As explained in Grounds 1 and 2 above, Deaton would have anticipated and/or rendered obvious claim 23. But to the extent Deaton does not, a POSITA would have found claim 23 obvious over Deaton in view of Brown. Brown specifically describes a retail network system “connected to a banking or financial network 110 in order to handle credit card and other electronic transactions passing through the retail network 104, e.g., originating at POS terminals 102.” Ex-1005, [0015], Fig. 1 (reproduced below); Ex-1003, ¶180.



As explained in Section V.B.2 above, a POSITA would have been motivated to combine Deaton with Brown and would have had a reasonable expectation of success. Ex-1003, ¶¶181-183.

b) Claims 24 to 26

Brown discloses that the network with the financial institution can be configured using various different networks, which would include using a secure file transfer protocol server. For instance, Brown teaches that “[t]he networks 104, [financial institution] 110 and 116 may be implemented using the Internet, an intranet, a wide area network (WAN), a local area network (LAN), a virtual private network, or any combination of the foregoing. The networks may include both wired and wireless connections, including optical links.” Ex-1005, ¶20; Ex-1003, ¶184.

Brown further discloses the financial institution server receives debit and credit information from the retail server. Ex-1005, ¶17 (“customer may use cash or a financial card (e.g., credit, debit or similar card), and in the case of a card, information may be read at the POS terminal (e.g., at a magnetic stripe reader) and transmitted to a bank or financial institution through financial network 110 in order to authorize the transaction and post it to the appropriate account.”); Ex-1003, ¶185. Brown also teaches that the payments are processed by the clearing house. Ex-1005, ¶29 (“payments from the benefits account to the retail establishment or merchant are handled in the same manner as a conventional debit card transaction, with the

amount debited from the benefits account being electronically transferred through a clearing house network (e.g., financial network 110) and credited to the account of the merchant.”); Ex-1003, ¶185. A POSITA reading Brown would understand that the clearing house network (e.g., financial network 110) provides processed debit and credit information to the originating financial institution. Ex-1005, ¶17 (“[debit or credit] information may be ... transmitted to a bank or financial institution through financial network 110”); Ex-1003, ¶185.

As explained in Section V.B.2 above, a POSITA would have been motivated to combine Deaton with Brown would have had a reasonable expectation of success. Ex-1003, ¶186.

Therefore, claims 24 to 26 would have been obvious over Deaton in view of Brown. Ex-1003, ¶187.

c) Claim 27

Brown teaches that information can be stored in a central database. Ex-1005, ¶19 (“[t]he database 122 stores data (to be described in greater detail later in conjunction with FIG. 4) which may, among other things, identify program participants, account balances, and product IDs for program eligible products.) A POSITA reading Deaton and Brown could understand that the redemption data generated in the Deaton system could be stored in the central billing database described in Brown. Ex-1003, ¶188.

As explained in Section V.B.2 above, a POSITA would have been motivated to combine Deaton with Brown and would have had a reasonable expectation of success. Ex-1003, ¶189.

d) Claim 38 to 40

Deaton in view of Brown would have rendered obvious claims 38 to 40. *See supra* claims 24-26. Ex-1003, ¶190.

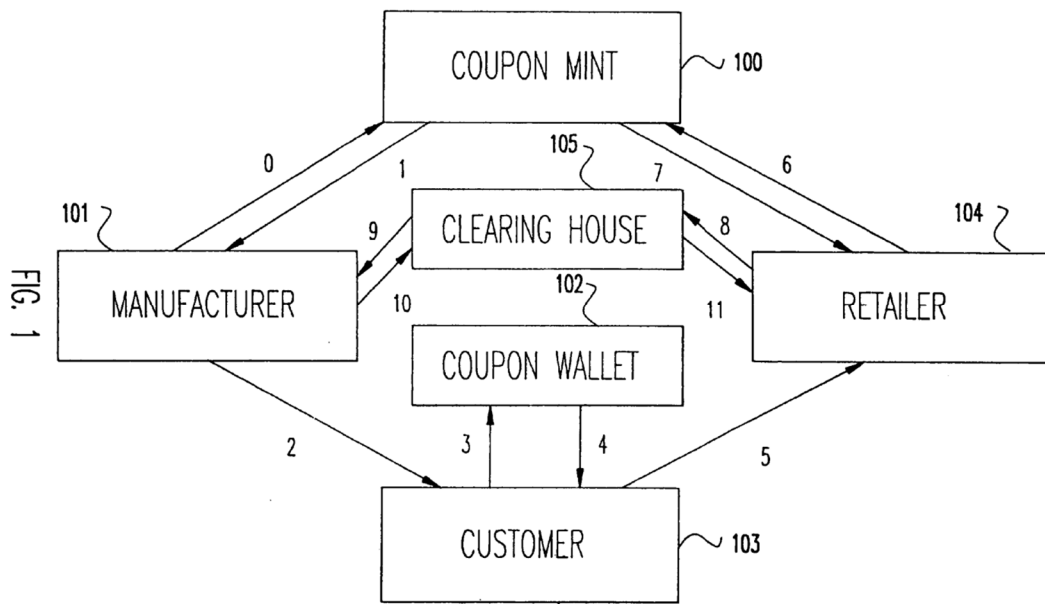
e) Claims 42 to 43

Deaton in view of Brown would have rendered obvious claims 42 and 43. *See supra* claims 24-26. Ex-1003, ¶191.

C. Ground 4: Claims 28 and 44 Would Have Been Obvious Over Deaton and Brown In View Of Aggrawal

1. Summary of Aggrawal (Ex-1006)

Aggrawal describes a method and system that “generates, distributes, stores, redeems, validates and clears electronic manufacturer coupons and electronic store coupons.” Ex-1006, Abstract; Ex-1003, ¶64. Figure 1 of Aggrawal shows a retailer 104, coupon mint 100, clearing house 105, and manufacturer 101. Ex-1006, 6:12-20; Ex-1003, ¶64. Aggrawal also explains that the coupon mint and clearing house can be performed by the same service provider. Ex-1004, 10:55-58; Ex-1003, ¶64.



Aggrawal describes ways to validate and redeem coupons. For example, Figure 2 shows an “electronic manufacturer coupon life-cycle.” Ex-1004, 5:10-11; Ex-1003, ¶65.

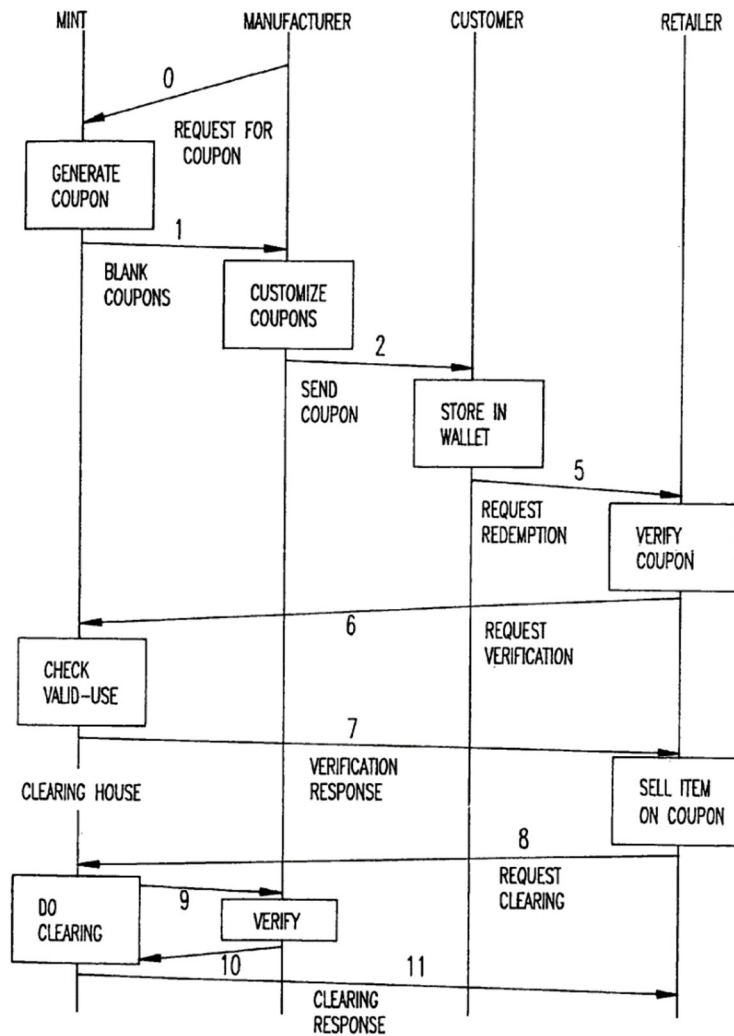


FIG. 2

2. Motivation to Combine and Reasonable Expectation of Success

As demonstrated in Section IV.C.2, a POSITA would have been motivated to modify Deaton to include the teaching from Brown. A POSITA would have also been motivated to modify to include the teaching from Aggrawal as well. Ex-1003, ¶194.

Both Deaton and Aggrawal teach coupon systems with numerous similarities, including having information transmitted from a point-of-sale to a central sever. Ex-1003, ¶195. As a result, combining Deatons' teaching with Aggrawal would have used known methods (sending additional information and then using that information to verify proper redemption) to improve Deaton's coupon redemption and validation system. Ex-1003, ¶195.

Deaton describes a system where different manufacturers are coupled with a central UPC server. Ex-1004, Fig. 1; Ex-1003, ¶196. Aggrawal discloses a clearing house that is "a single point interface to the retailers" to consolidate coupons from "different manufacturers." Ex-1006, 9:18-21. A POSITA would have been motivated to combine the teachings from Aggrawal with Deaton because it could have simplified the consolidation of coupons from different manufacturers for the retailers in the already consolidated UPC server. Ex-1003, ¶196.

In addition, a POSITA would have reasonably been expected to succeed in combining the teachings of Deaton and Aggrawal. Ex-1003, ¶197. Implementation of Aggrawal's functionality would have required only routine knowledge because Deaton already contemplated that information would be sent from a point-of-sale to a central server and that the central would have performed tasks. Ex-1003, ¶197. Such a combination would have been straightforward, requiring only a minor

modification. Ex-1003, ¶197. Thus, a POSITA would have a reasonable expectation of success. Ex-1003, ¶197.

3. Detailed Analysis of Ground 4

a) Claim 28

Claim 28 depends on claim 27, and as explained above in Ground 3 (Section IV.B.3.c), claim 27 would have been obvious over Deaton in view of Brown. Deaton and Brown in view of Aggrawal would render obvious claim 28. Ex-1003, ¶192.

Aggrawal teaches an automated clearing house processing system can be configured to generate and transmit reports. Ex-1006, 9:19-29 (“It then sorts the coupons by retailers and manufacturers and generates reports along with sorted coupon lists to transfer the required amount from manufacturer to the retailer.”) A POSITA would understand that these reports generated by the clearing house processing in the Aggrawal system could be transmitted to the financial institution described in Brown because Brown discloses a retailer network configured to be coupled to the financial network. Ex-1003, ¶193.

As explained in Section V.C.2 above, a POSITA would have been motivated to combine Deaton with Brown and Aggrawal, and would have had a reasonable expectation of success. Ex-1003, ¶194.

Therefore, claim 28 would have been obvious over Deaton and Brown in view of Aggrawal. Ex-1003, ¶198.

b) Claim 44

Deaton and Brown in view of Aggrawal would have rendered obvious claim 44. *See supra* claim 28. Ex-1003, ¶199.

D. Ground 5: Claim 8 Would Have Been Obvious Over Deaton In View of Fajkowski

1. Summary of Fajkowski (Ex-1007)

Fajkowski discloses “a system for the electronic management and redemption of coupons.” Ex-1007, Abstract; Ex-1003, ¶69. Fajkowski describes a server 200 that will collect information from the point-of-sale “related to the volume of coupons redeemed.” Ex-1007, 22:24-26. Fajkowski explains that “[t]his redeemed coupon data will be used, in part, to create coupon redemption reports for the retail outlet.” Ex-1007, 22:26-28. While Fajkowski explains this in the context of a server located at a store, Fajkowski states the invention covers where the point-of-sale communicates “directly with a remote clearinghouse.” Ex-1007, 24:4-9; Ex-1003, ¶69.

2. Motivation to Combine and Reasonable Expectation of Success

Both Deaton and Fajkowski teach coupon systems with numerous similarities, including having information transmitted from a point-of-sale to a central sever. Ex-1003, ¶202. As a result, combining Deatons’ teaching with Fajkowski would have

used known methods and apparatus to improve Deaton's coupon redemption and validation system. Ex-1003, ¶202.

Fajkowski describes a system for "electronically collecting, carrying and redeeming coupons" which "eliminates the many disadvantages consumers, retailers and manufacturers face when shepherding paper coupons through the redemption process." Ex-1007, 3:53-57; Ex-1003, ¶203. A POSITA reading Fajkowski would have understood that the coupon system in Deaton could implement the teachings of Fajkowski to eliminate potential disadvantages to customers. Ex-1003, ¶203. Indeed, Deaton already taught the use of electronic coupons, and would have been motivated to implement the additional teachings in Fajkowski. Ex-1003, ¶203.

In addition, a POSITA would have reasonably been expected to succeed in combining the teachings of Deaton and Fajkowski. Ex-1003, ¶204. Implementation of Hawkin's functionality would have required only routine knowledge because like Deaton describes the use of electronic coupons. Ex-1004, 6:22-25; Ex-1008, ¶18; Ex-1003, ¶204. Such a combination would have been straightforward, requiring only a minor modification. Ex-1003, ¶204. Thus, a POSITA would have a reasonable expectation of success. Ex-1003, ¶204.

3. Detailed Analysis of Ground 5

a) Claim 8

As explained above in Section VI.A.2.h, Deaton teaches and/or renders obvious claim 8. To the extent Deaton does not, however, a POSITA would have found claim 8 obvious over Deaton in view of Fajkowski. Ex-1003, ¶200.

Fajkowski teaches that the electronic coupons contain additional “data which will provide additional information such as what product is represented by the coupon.” Ex-1007, 10:16-18. Further, Fajkowski teaches that data includes “the product’s brand name, the required size, number or combination of items required to redeem the coupon, the expiration date, and the discount amount of the coupon...” *Id.*, 10:19-25; Ex-1003, ¶201. Thus, Fajkowski teaches that the data can include an application identifier (e.g., the “product’s brand name”) and the expiration date. *Id.*, 10:19-25; Ex-1003, ¶201. A POSITA combining Fajkowski with the second coupon information disclosed in Deaton (as demonstrated above) would have found claim 8 obvious. Ex-1003, ¶201.

A POSITA would have been motivated to include the additional data from Fajkowski into the second coupon information transmitted in Deaton. Ex-1003, ¶¶202-203. Fajkowski teaches that its electronic coupon system “eliminates the many disadvantages consumers, retailers and manufacturers,” (Ex-1007, 3:53-57) and a POSITA would have found implementing its teachings to be beneficial. Ex-

1003, ¶204. Therefore, claim 8 would have been obvious over Deaton in view of Fajkowski. Ex-1003, ¶205.

E. Ground 6: Claim 37 Would Have Been Obvious Over Deaton In View of Hawkins

1. Summary of Hawkins (Ex-1008)

Hawkins is directed to “[m]ethods and systems are provided for activating and redeeming product discount offers targeted to particular customers.” Ex-1008, Abstract; Ex-1003, ¶71. Hawkins describes a “biometrically enhanced infrastructure architecture” that is used for “activating and redeeming personal incentives and conducting biometric payment transactions at a merchant location.” Ex-1008, ¶18. More specifically, Hawkins describes a “merchant's point of sale (‘POS’) 105 may include an electronic cash register (‘ECR’) 110 that is coupled to a PIN pad 116 which is further coupled to a biometric access point (‘BAP’) 120.” Ex-1008, ¶18; Ex-1003, ¶71.

2. Motivation to Combine and Reasonable Expectation of Success

Both Deaton and Hawkins teach coupon systems with numerous similarities, including having information transmitted from a point-of-sale to a central sever. Ex-1003, ¶207. As a result, combining Deatons’ teaching with Hawkins would have used known methods and apparatus to improve Deaton’s coupon redemption and validation system. Ex-1003, ¶207.

Hawkins describes a “biometrically enhanced infrastructure architecture” that is used for “activating and redeeming personal incentives and conducting biometric payment transactions at a merchant location.” Ex-1008, ¶18; Ex-1003, ¶208. A POSITA reading Hawkins would have understood that the coupon system in Deaton could be “biometrically enhanced,” providing an additional layer of customer and coupon identification. Ex-1003, ¶208. Indeed, Deaton already taught the use of customer smart cards for identification, and would have been motivated to implement the biometric identification system in Hawkins for the additional security Hawkins teaches that it provides. Ex-1004, 3:54-61; Ex-1003, ¶208.

In addition, a POSITA would have reasonably been expected to succeed in combining the teachings of Deaton and Hawkins. Ex-1003, ¶209. Implementation of Hawkin’s functionality would have required only routine knowledge because like Deaton describes the use of an electronic cash register connected with accessories, such as a scanner, and Hawkins describes that its biometric access point can be coupled to an electronic cash register. Ex-1004, 6:22-25; Ex-1008, ¶18; Ex-1003, ¶209. Such a combination would have been straightforward, requiring only a minor modification. Ex-1003, ¶209. Thus, a POSITA would have a reasonable expectation of success. Ex-1003, ¶209.

3. Detailed Analysis of Ground 6

a) Claim 37

Deaton does not teach that the validating step comprises biometrically identifying a user at the terminal. Ex-1003, ¶206. A POSITA would have, however, found such a step obvious over Deaton in view of Hawkins. Hawkins teaches that a “biometrically accessible loyalty kiosk 170 may also be placed at the merchant to provide customers the opportunity to view and activate their personal incentives prior to initiating their shopping experience.” Ex-1008, ¶18; Ex-1003, ¶206. In addition, Hawkins teaches that “a biometric scanner device (without the additional processing, memory and software capabilities of a BAP 120) may be coupled directly to the ECR [electronic cash register] 110 and the logic for communication between the biometric scanner device and the IMS 165 may be managed by the addition of another server coupled to the store controller 135 in the back of the merchant's location.” *Id.*, ¶19; Ex-1003, ¶206. A POSITA would have been motivated to combine Deaton and Hawkins. Ex-1003, ¶¶207-209. Therefore, claim 37 would have been obvious over Deaton in view of Hawkins. Ex-1003, ¶210.

F. Ground 7: Claim 37 Would Have Been Obvious Over Deaton In View of Schneider

1. Summary of Schneider (Ex-1009)

Schneider is directed to a system with a “database of enrolled biometric samples, a point-of-sale station having a biometric-sample receiver, and a

comparator in communication with the database and the point-of-sale station. I.” Ex-1009, Abstract; Ex-1003, ¶73. Schneider describes a “tokenless reward system” where “the customer no longer has the requirement of carrying a token, such as a card or chip, that can be lost, stolen or forgotten.” Ex-1009, ¶4. More specifically, Hawkins dis “customer reward system 10 may include a database 13 of enrolled biometric samples, a point-of-sale station 16 having a biometric-sample receiver 19, and a comparator 22. .” Ex-1009, ¶10; Ex-1003, ¶73.

2. Motivation to Combine and Reasonable Expectation of Success

Both Deaton and Schneider teach coupon and incentive reward systems with numerous similarities, including having information transmitted from a point-of-sale to a central sever. Ex-1003, ¶212. As a result, combining Deatons’ teaching with Schneider would have used known methods and apparatus to improve Deaton’s coupon redemption and validation system. Ex-1003, ¶212.

Schneider describes a “tokenless reward system” where the customer “customer no longer has the requirement of carrying a token, such as a card or chip, that can be lost, stolen or forgotten.” Ex-1009, ¶4; Ex-1003, ¶213. In addition, Schneider explains that “the merchant has a means of positive identification for each customer without the expense and bookkeeping associated with operating a token-

based system, and the costs associated with the issuance of the physical token itself.”
Ex-1009, ¶4; Ex-1003, ¶213.

A POSITA reading Schneider would have understood that the coupon and incentive reward system in Deaton could be improved by implementing a system that could use biometric information to identify its customers, providing an additional layer of customer and coupon identification. Ex-1003, ¶214. Indeed, Deaton already taught the use of customer smart cards for identification, and would have been motivated to implement the biometric identification system in Schneider for the additional convenience and cost-saving Schneider teaches that it provides. Ex-1004, 3:54-61; Ex-1003, ¶214.

In addition, a POSITA would have reasonably been expected to succeed in combining the teachings of Deaton and Schneider. Ex-1003, ¶215. Implementation of Schneider’s functionality would have required only routine knowledge because like Deaton describes the use of an electronic cash register connected with accessories, such as a scanner, and Schneider describes that its biometric access point can be coupled to an electronic cash register. Ex-1004, 6:22-25; Ex-1009, ¶¶10-11, Fig. 1; Ex-1003, ¶215. Such a combination would have been straightforward, requiring only a minor modification. Ex-1003, ¶215. Thus, a POSITA would have a reasonable expectation of success. Ex-1003, ¶215.

3. Detailed Analysis of Ground 7

a) Claim 37

Deaton does not teach that the validating step comprises biometrically identifying a user at the terminal. Ex-1003, ¶211. A POSITA would have, however, found such a step obvious over Deaton in view of Schneider. Schneider teaches that a “point-of-sale station 16 having a biometric-sample receiver.” Ex-1009, ¶10; Ex-1003, ¶211. In addition, Schneider teaches that the “point-of-sale station 16 may be a check-out register. The check-out register may include a cash drawer and a scanner for scanning bar codes on items being purchased. The biometric sample receiver 19 may include a facial-image camera, an iris scanner, or an ultrasonic fingerprint scanner.” *Id.*, ¶11; Ex-1003, ¶211. A POSITA would have been motivated to combine Deaton and Schneider. Ex-1003, ¶¶212-215. Therefore, claim 37 would have been obvious over Deaton in view of Schneider. Ex-1003, ¶216.

V. ENABLEMENT AND SECONDARY CONSIDERATIONS

The prior art references relied upon in this petition are all enabled. Ex-1003, ¶217. There are also no secondary considerations of non-obviousness tied to the Challenged Claims. Ex-1003, ¶¶218-219.

VI. PTAB DISCRETION SHOULD NOT PRECLUDE INSTITUTION

A. Discretionary Denial Under § 314(a) Is Not Warranted

Although there is currently a district court case in which the '855 patent is asserted, the six-factor test set forth in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 5–6 (P.T.A.B. Mar. 20, 2020) (precedential), favors institution. Ultimately, given the compelling evidence of unpatentability described above, the *Fintiv* factors should not lead the Board to discretionarily deny institution.

Factor 1. Petitioner has not yet moved to stay the Current Litigation pending IPR, therefore this factor is neutral. *Google LLC v. Parus Holdings, Inc.*, IPR2020-00847, Paper 9 at 12 (P.T.A.B. Oct. 21, 2020).

Factor 2. Jury selection in the Current Litigation is not currently scheduled but would be no earlier than January 2026. Ex-1011, 10–11. The current average time to trial for the Delaware district court is 32.9 months. Ex-1012, 14. Given the average time to trial for Delaware, a final written decision will likely occur before trial. This factor weighs against institution.

Factor 3. The Current Litigation is still in its early stages: discovery has just begun, and expert discovery remains far on the horizon. Ex-1011, 2–3. In fact, the parties have not exchanged infringement or invalidity contentions yet. This factor thus weighs against the Board exercising its discretion to deny the Petition.

Factor 4. The parties in the Current Litigation have not exchanged infringement or invalidity contentions yet. *See* Ex-1011. And in the Complaint, only one claim from the '855 patent was identified. Ex. 1010, ¶46. Meanwhile, Petitioner is challenging all claims. As such, this factor weighs against denying institution or is neutral.

Factor 5. While Petitioner is the defendant in the Current Litigation, it is likely that the Board will reach a decision before the district court proceeding. Therefore, this factor weighs slightly against discretionary denial. *Brucker Spatial Biology, Inc. v. President & Fellows of Harvard Coll. & 10x Genomics*, No. IPR2024-00526, 2024 WL 3914591, at *22 (P.T.A.B. Aug. 23, 2024).

Factor 6. The prior art presented in this Petition renders the Challenged Claims unpatentable as obvious. The merits of Petitioner's arguments are compelling because they lead to a strong conclusion that one or more claims are unpatentable by a preponderance of the evidence. This factor therefore weighs against discretionary denial. As such, the *Fintiv* factors are either neutral or weigh against discretionary denial.

In totality, the *Fintiv* factors weigh strongly in favor of institution. The factors set forth in *General Plastic* do not apply here because Petitioner has not previously submitted any petitions for IPR on the '855 patent—i.e., this is not a “follow-on petition.” *General Plastic Indus. Co., Ltd. v. Kaisha*, IPR2016-01357, Paper 19 at

8–9 (P.T.A.B. Sept. 6, 2017) (precedential) (summarizing factors for exercising discretion to deny “follow-on petitions”).

The Board should therefore not exercise its discretion to deny institution.

B. Discretionary Denial Under § 325(d) Is Not Warranted

In determining whether to institute an IPR, the Board may consider whether “the same or substantially the same prior art or arguments previously were presented to the Office.” §325(d); *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6, 7 (PTAB Feb. 13, 2020). While a counterpart to Fajkowski was “previously presented to the Office,” during the prosecution of related applications to the ’855 patent, none of Deaton, Brown, Aggrawal, Hawkins, or Schneider were before the Office during prosecution. Therefore, under the first prong, neither substantially the same art nor substantially the arguments were presented to the Office. *See Thorne Research, Inc. v. Trustees of Dartmouth College*, IPR2021-00491, Paper 18 at 7-9 (PTAB Aug. 12, 2021).

VII. CONCLUSION

Petitioner has established a reasonable likelihood that the Challenged Claims are unpatentable. Petitioner therefore respectfully requests that IPR be instituted.

DATED: September 6, 2024

Respectfully Submitted,

/Brian M. Buroker/

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CERTIFICATION UNDER 37 C.F.R. § 42.24(d)

Under the provisions of 37 C.F.R. § 42.24(d), the undersigned attorney hereby certifies that the word count for Sections I–VII of the foregoing Petition for *Inter Partes* Review is 13,994, according to the word count tool in Microsoft Word.

DATED: September 6, 2024

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CERTIFICATE OF SERVICE

The undersigned certifies service pursuant to 37 C.F.R. §§ 42.6(e) and 42.105(a), (b) on the Patent Owner via FedEx overnight mail of a copy of this Petition for Inter Partes Review, all exhibits, and a Power of Attorney at the Patent Owner's correspondence address of record for the '855 patent:

27975 - ADD+G - 27975
Attn: Christopher Regan
1135 East State Road 434, Suite 3001
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In addition, the Petition, all exhibits, and a Power of Attorney were served through an electronic mail message with a link to counsel of record for Patent Owner and litigation counsel for the Exclusive Licensee at the following email addresses:

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APPENDIX: CHALLENGED CLAIM LISTING

No.	Limitation
1pre	A system, comprising:
1a	an Intelligent Clearing Network (ICN) network;
1b	at least two point-of-sale (POS) terminals;
1c	at least two POS controllers, where each POS controller is configured to communicate with a plurality of the at least two POS terminals; and
1d	an ICN server configured to communicate with the at least two POS controllers,
1e	wherein a POS terminal of the at least two POS terminals is located at a retail store and is configured to scan, at a point-of-sale (POS) terminal, first coupon or incentive related information including universal product code information of an item to be purchased, and to transmit the first coupon or incentive related information at the POS terminal to a POS controller of the at least two POS controllers;
1f	the POS controller is configured to transmit the first coupon and/or incentive related information to the ICN server via the network, where the ICN server is at a location that is remote from the retail store; and
1g	the ICN server is configured to validate the first coupon or incentive related information for redemption based at least in part on the universal product codes of items to be purchased and, in response to validating the first coupon or incentive related information, to transmit to the POS terminal, via the POS controller, second coupon or incentive related information
2	A system as in claim 1, wherein the ICN server is a coupon or incentive processing server, the system further comprising a retailer's POS controller through which the POS terminal is communicatively coupled to the ICN network and the ICN coupon or incentive processing server via ICN POS bridge software installed on the POS controller and the POS terminal.
3	The system as in claim 2, further comprising a manufacturer's server communicatively coupled to the ICN server.

No.	Limitation
4	The system as in claim 3, wherein the first coupon related information includes information regarding a consumer's transaction at the POS terminal including at least one of date, time, store, lane, total dollar amount spent, customer ID, and universal product codes.
5	The system as in claim 3, wherein the first coupon related information comprises a control number provided through a downloaded coupon or coupon card.
6	The system as in claim 1, wherein the first coupon or incentive related information is consumer identification information.
7	The system as in claim 1, wherein the second coupon or incentive related information is GS1 coupon cod
8	The system as in claim 7, wherein the second coupon or incentive related information includes an application identifier, a product number system character, manufacturer offer code, expiration date, and household identifier.
9	The system as in claim 1, wherein the server is coupled to a centralized database that provides second coupon or incentive related information when the server receives first coupon or incentive information
10	The system as in claim 1, wherein the server tabulates raw data of at least one of coupon and incentive processing transactions for a manufacturer.
11	The system as in claim 10, wherein the server provides the tabulated data to the manufacturer in real time in the form of a report.
12	The system as in claim 1, wherein the network is the World Wide Web.
13	The system as in claim 1, wherein the network is an internet.
14	The system as in claim 1, wherein each of the at least two POS terminals transmits third coupon or incentive related information to the POS controller through the ICN POS bridge software upon successful redemption of a coupon.

No.	Limitation
15	The system as in claim 14, wherein the third coupon related information comprises identification information from the product purchased and the GS 1 coupon code of the second coupon related information and retailer identification information.
16	The system as in claim 15, the third coupon related information being used by the server to generate a report to the manufacturer whose product was purchased through redemption of the coupon code.
17	The system as in claim 1, wherein the ICN POS bridge software installed on the POS controller transmits second coupon or incentive related information to the ICN POS bridge software installed on each of the at least two POS terminals.
18	The system as in claim 1, wherein the network is a virtual private network.
19	The system as in claim 1, wherein the network is a high speed dedicated communication line.
20	The system as in claim 1, wherein the POS controller transmits third coupon related information to the ICN server through the ICN POS bridge software upon successful redemption of a coupon or incentive.
21	The system as in claim 2, wherein the ICN POS bridge software comprises a configurable software suite that is physically installed and controls POS behavior based on information sent and received to and from the ICN server.
22	The system as in claim 21, wherein the POS data bridge software is configurable for each unique retailer.
23	The system as in claim 3, further comprising an originating financial institution server coupled to the retailer server.
24	The system as in claim 23, further comprising a secure file transfer protocol server which receives debit and credit information from the retailer server and provides automated clearing house processing to the originating financial institution.
25	The system as in claim 24, wherein the secure file transfer protocol server provides the processed debit and credit information to the originating financial institution.

No.	Limitation
26	The system as in claim 3, further comprising a file transfer protocol server in communication with the ICN server.
27	The system as in claim 26, wherein the redemption data stored in the ICN database is provided to the file transfer protocol server and stored in a central billing database of the file transfer protocol server.
28	The system as in claim 27, the file transfer protocol server comprising an automated clearing house processing system configured to generate reports for at least one financial institution.
29	The system as in claim 1, wherein when the universal product codes corresponding to the first coupon or incentive related information are trigger universal product codes, coupon related information corresponding to target universal product codes is transmitted by the ICN coupon or incentive processing server to the POS terminal.
30	The system as in claim 29, wherein at least one of the target universal product codes corresponds to a product that at least one of the trigger universal product codes corresponds to
31	The system as in claim 30, wherein at least one of the target universal product codes corresponds to a product that none of the trigger universal product codes corresponds to.
32pre	A method for processing at least one of coupons and incentives, comprising:
32a	scanning via a first interface, first coupon or incentive related information at a terminal located at a retail store, the first coupon or incentive related information including universal product code information of an item to be purchased;
32b	transmitting, via a second interface, the first coupon or incentive related information through a network to a coupon or incentive processing server for validation and redemption, where the first interface is different from the second interface, and where the coupon or incentive processing server is located remotely from the retail store; and

No.	Limitation
32c	in response to the first coupon or incentive related information being validated at the coupon or incentive processing server based at least in part on the universal product code information, receiving, via the second interface, second coupon related information through the network to the terminal, where the second coupon related information indicates whether the coupon or incentive processing server has validated the first coupon related information.
33	The method as in claim 32, further comprising, if the terminal validates the second coupon or incentive related information, redeeming a corresponding coupon or incentive and transmitting coupon or incentive redemption information to the coupon processing server.
34	The method as in claim 33, further comprising when the coupon or incentive processing server receives the coupon or incentive redemption information, deactivating the corresponding coupon or incentive.
35	The method as in claim 34, further comprising storing processed coupon information corresponding to the coupon or incentive redemption information in a database and making that information available in real time as reports to a manufacturer through a web portal.
36	The method as in claim 35, further comprising the coupon or incentive processing server transmitting processed coupon information corresponding to the coupon or incentive redemption information to a manufacturer's server.
37	The method as in claim 36, where validating comprises biometrically identifying a user at the terminal.
38	The method as in claim 36, further comprising the retailer server transmitting debit and credit information corresponding to the redeemed coupon or incentive information to a secure file transfer protocol server.

No.	Limitation
39	The method as in claim 38, wherein the secure file transfer protocol server provides an automated clearing house processing of billing information corresponding to the debit and credit information and places the processed billing information in a file.
40	The method as in claim 39, wherein the secure file transfer protocol server transmits the file to an originating financial institution.
41	The method as in claim 35, wherein clearing the processed coupon or incentive information comprises debiting a promotion sponsor in an amount of coupons or incentives dispensed, intelligent clearing network rate, and retailer credit rate; holding funds by the intelligent clearing network and storing clearing rate total debited from the promotion sponsor; and crediting a retailer with a value of the coupons or incentives dispensed and a credit rate.
42	The method as in claim 35, wherein clearing the processed coupon or incentive information comprises requesting by an automated clearing house redemption data from the coupon or incentive processing serv
43	The method as in claim 42, wherein clearing the processed coupon or incentive information comprises requesting, by an automated clearing house server, redemption data from the coupon or incentive processing server
44	The method as in claim 43, wherein the redemption data received by the automated clearing house server is reported to an originating financial institution.
45	The method as in claim 32, wherein when the universal product code corresponding to the first coupon or incentive related information is a trigger universal product code, and coupon or incentive related information corresponding to a target universal product code is transmitted by the ICN coupon or incentive processing server to the POS terminal.
46	The method as in claim 45, wherein the target universal product code corresponds to a product that the trigger universal product code corresponds to.

No.	Limitation
47	The method as in claim 46, wherein the target universal product code corresponds to a product that the trigger universal product code does not corresponds to.
48	The method as in claim 32, wherein the first coupon or incentive related information also comprises a control code obtained by a customer who visits a web site to select from at least one coupon, promotion, or incentive.
49pre	A computer readable medium storing computer code for processing coupons or incentives across a network, where execution of the computer code by a processor causes the processor to perform action comprising
49a	receiving, at an ICN server from a terminal via the network, first coupon or incentive related information including universal product code information of an item to be purchased at the terminal, where the first coupon or incentive related information is scanned at the terminal located at a retail store, where the ICN server is at a location that is remote from the retail store and the ICN server is configured to receive first coupon or incentive related information from a plurality of terminals;
49b	interpreting, and comparing the first coupon or incentive related information at the ICN server;
49c	validating the first coupon or incentive related information based on the interpreting, and comparing and based at least in part on the universal product code information;
49d	in response to validating the first coupon or incentive code, retrieving coupon or incentive codes and any corresponding target universal product codes triggered by the validation of the first coupon or incentive code from a centralized database; and
49e	transmitting the retrieved coupon or incentive codes to the terminal via the network.
50	The computer readable medium of claim 49, the actions further comprising notifying the coupon or incentive processing server of successful coupon or incentive redemptions.

No.	Limitation
51pre	A point of sale (POS) terminal located at a retail store comprising:
51a	a first interface configured to scan coupon or incentive related information and to scan product code information of an item to be purchased;
51b	a second interface configured to receive information from and transmit information to a retailer server, where the first interface is different from the second interface;
51c	a processor; and
51d	a memory for storing a point of sale bridge software configured to redeem a manufacturer coupon or incentive contained in a promotion request message received through the second interface,
51e	where the promotion request message indicates that a coupon or incentive processing server has validated the manufacturer coupon or incentive,
51f	the processor configured to receive information comprising product code information of an item to be purchased and the coupon related information from the first interface; to transmit the information through the second interface to the coupon or incentive processing server, where the coupon or incentive processing server is at a location that is remote from the retail store; in response to the coupon or incentive related information being validated at the coupon or incentive processing server based at least in part on the product code information, to receive the promotion request message; and to execute the point of sale bridge software.
52	The point of sale terminal as in claim 51, wherein the first interface is configured to communicate with a universal product code reading device
53pre	An Intelligent Clearing Network (ICN) server comprising:
53a	a processor; an interface configured to permit communications over a network to a plurality of POS terminals; and an ICN database,

No.	Limitation
53b	wherein the processor of the ICN server is configured to receive data elements through a network from a point-of-sale (POS) terminal of a retailer for validation and redemption, the data elements including product code information of an item to be purchased at the POS terminal and a promotion request message, where the promotion request message is scanned at the POS terminal located at a retail store, where the ICN server is at a location that is remote from the retail store, to validate the promotion request message based at least in part on the product code information, and, in response to validating the data elements at the ICN server, to send a promotion request response message that indicates whether the promotion request message has been validated.
54pre	A method comprising:
54a	receiving, at an intelligent clearing network (ICN) server, a first message from a point-of-sale terminal via a network, where the first message comprises a unique account number and product code information of an item to be purchased at the POS terminal, where the unique account number is scanned at the POS terminal located at a retail store, where the ICN server is at a location that is remote from the retail store;
54b	in response to receiving the first message, determining, at the ICN server, whether at least one coupon code is assigned to the unique account number, where a coupon code comprises a first portion and a second portion;
54c	in response to determining that the at least one coupon code is assigned to the unique account number, validating the at least one coupon code based at least in part on the product code information and transmitting, from the ICN server, a second message to the point-of-sale terminal via the network, the second message comprising the first portion of each of the at least one coupon code assigned to the unique account number
54d	in response to transmitting the second message, receiving, at the ICN server, a third message, from the point-of-sale terminal via the network, the third message indicating which of the at least one coupon code was redeemed at the point-of-sale terminal; and

No.	Limitation
54e	transmitting, from the ICN server, a fourth message to a manufacturer, the fourth message comprising the second portion of at least one coupon code that was redeemed.
55	The method of claim 54, further comprising: receiving an opt-in message comprising the unique account number; and assigning at least one opted-in coupon code to the unique account number based on the opt-in message.
56	The method of claim 54, further comprising in response to receiving the first message, determining, at the ICN server, whether the unique account number is valid, where determining whether at least one coupon code is assigned to the unique account number is further in response to determining that the unique account number is valid.
57pre	A system, comprising:
57a	an Intelligent Clearing Network (ICN) network;
57b	at least two point-of-sale (POS) terminals;
57c	at least two POS controllers, where each POS controller is configured to communicate with a plurality of the at least two POS terminals; and
57d	an ICN server configured to communicate with the at least two POS controllers,
57e	wherein a POS terminal of the at least two POS terminals is located at a retail store and is configured to scan, at a point-of-sale (POS) terminal, first coupon and incentive related information, including universal product code information of an item to be purchased, and to transmit the first coupon and incentive related information at the POS terminal to a POS controller of the at least two POS controllers;
57f	the POS controller is configured to transmit the first coupon and incentive related information to the ICN server via the network where the ICN server is at a location that is remote from the retail store; and

No.	Limitation
57g	the ICN server is configured to validate the first coupon and incentive related information for redemption based at least in part on the universal product codes of an item to be purchased and, in response to validating the first coupon and incentive related information, to transmit to the POS terminal, via the POS controller, second coupon and incentive related information.