

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. IPR2024-01325

U.S. Patent No. 10,846,729

Petition for *Inter Partes* Review of U.S. Patent No. 10,846,729

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PETITIONER’S EXHIBIT LIST

Exhibit No.	Description
1001	U.S. Patent No. 10,846,729
1002	U.S. Patent No. 10,846,729 File History
1003	Declaration of Dr. Todd C. Mowry
1004	U.S. Patent No. 7,013,286 (“Aggrawal”)
1005	U.S. Patent No. 6,993,498 (“Deaton”)
1006	EP 0757820 (“Granger”)
1007	U.S. Patent No. 6,932,270 (“Fajkowski”)
1008	U.S. Patent No. 5,832,458 (“Jones”)
1009	Application No. 13/773,704 File History
1010	Application No. 13/911,175 File History
1011	Complaint, <i>Inmar Brand Solutions, Inc. v. Quotient Technology Inc.</i> , 23-cv-00994, D. Del. (filed September 7, 2023)
1012	Scheduling Order, <i>Inmar Brand Solutions, Inc. v. Quotient Technology Inc.</i> , 23-cv-00994, D. Del. (filed June 4, 2024)
1013	District Court Trial Statistics (12-Month Period Ending June 30, 2024)
1014	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
1015	Philip A. Bernstein et al, <i>Principles of Transaction Processing for the Systems Professional</i> , United Kingdom: Elsevier Science, (1997)
1016	A.S. Tanenbaum et al, <i>Distributed Systems: Principles and Paradigms</i> , Prentice Hall (2002)
1017	David Gifford et al, “The CIRRUUS banking network” Communications of the ACM, Vol. 28, Issue 8, Aug. 1985 798–807
1018	U.S. Patent Publication No. 2006/0047573 (“Mitchell”)
1019	Nielsen History at

TABLE OF EXHIBITS

(continued)

Exhibit No.	Description
	https://nielseniq.com/global/en/landing-page/our-history-niq-driving-force-behind-consumer-intelligence/
1020	Axel Winkelmann, <i>Integrated Couponing: A Process-Based Framework for In-Sore Coupon Promotion Handling in Retail</i> , Logos Verlag, (2006)
1021	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
1022	U.S. Patent Publication No. 2004/0030598 (“Boal”)
1023	U.S. Patent Publication No. 2003/0024981 (“Narasimhan”)
1024	U.S. Patent No. 7,231,357 (“Shanman”)
1025	The UPC at https://www.ibm.com/history/upc
1026	U.S. Patent No. 3,959,624 (“Kaslow”)
1027	U.S. Patent No. 8,511,553 (“McIntyre”)
1028	U.S. Patent Publication No. 2005/0114211 (“Amjadi”)
1029	U.S. Patent No. 5,974,399 (“Giuliani”)
1030	U.S. Patent No. 5,710,886 (“Christensen”)
1031	U.S. Patent No. 5,185,695 (“Pruchnicki”)
1032	U.S. Patent Publication No. 2004/0117250 (“Lubow”)
1033	Nahid Jilovec, <i>DI, UCCnet & RFID: Synchronizing the Supply Chain</i> , 29th Street Press, (2004)
1034	U.S. Patent Publication No. 2006/0265281 (“Sprovieri”)
1035	Where ‘Roger That’ Really Comes From at https://www.popularmechanics.com/technology/a22933/roger-that-origin/

TABLE OF ABBREVIATIONS

Abbreviation	Term
'729 patent	U.S. Patent No. 10,846,729
AIA	America Invents Act
Challenged Claims	Claims 1–20 of U.S. Patent No. 10,846,729
Ex-	Exhibit
Fig.	Figure
ICN	Intelligent Clearing Network
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
UPC	Uniform Product Code

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 ’729 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 9,098,855, which are related to the ’729 patent and are also the subject of the patent litigation brought by Inmar Brand Solutions, Inc.

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:

Lead Counsel for Petitioner	Back-up Counsel for Petitioner
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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 consents 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. 10,846,729 (Ex-1001) and seeks cancellation of claims 1–20 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 situation in which the coupon information of a pending transaction is transmitted to a server that is remote from the retail store in order to obtain coupon validation for the pending transaction and once the validation of the coupon is received back at the POS terminal completing the pending transaction by successfully redeeming the coupon.” But that feature was present in the prior art—namely the Aggrawal reference that was not in front of the Examiner. Aggrawal 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 ’729 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 1–20 of the '729 patent under pre-AIA 35 U.S.C. § 103.

The '729 patent issued from an application filed June 7, 2018, 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 1–20 be canceled based on the grounds below:

Ground	Claims	Basis for Rejection ¹
1	1, 5, 6, 10, 14, 16, 19	Obvious over Aggrawal in View of Deaton
2	2-4, 12, 13, 17, 18	Obvious over Aggrawal in View of Deaton and Granger
3	7, 8, 11	Obvious over Aggrawal in View of Deaton and Fajkowski
4	9, 15, 20	Obvious over Aggrawal in View of Deaton and Jones

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

¹ All obviousness grounds include the knowledge of POSITA.

1. U.S. Patent No. 7,013,286 (“Aggrawal”) (Ex-1004)

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 December 30, 1999. Aggrawal qualifies as prior art to the ’729 patent under pre-AIA 35 U.S.C. § 102(a), (e). Aggrawal was not cited or discussed during prosecution of the ’729 patent.

2. U.S. Patent No. 6,993,498 (“Deaton”) (Ex-1005)

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. Deaton qualifies as prior art to the ’729 patent under pre-AIA 35 U.S.C. § 102(a), (e). Deaton was not cited or discussed during prosecution of the ’729 patent.

3. EP 0757820 (“Granger”) (Ex-1006)

EP 0757820 (“Granger”) titled “Method and apparatus for electronically clearing and processing bar-coded discount coupons,” issued on July 26, 2000. Granger qualifies as prior art to the ’729 patent under pre-AIA 35 U.S.C. § 102(b). Granger was not cited or discussed during prosecution of the ’729 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 ’729

patent under pre-AIA 35 U.S.C. § 102(a), (e). Fajkowksi was cited and discussed during prosecution of the '729 patent; but it was not cited or discussed in combination with Aggrawal and/or Deaton as used in this petition.

5. U.S. Patent No. 5,832,458 (“Jones”) (Ex-1008)

U.S. Patent No. 5,832,458 (“Jones”) titled “System and method for electronically auditing point-of-sale transactions,” issued on November 3, 1998. Jones qualifies as prior art to the '729 patent under pre-AIA 35 U.S.C. § 102(b). Jones was not cited or discussed during prosecution of the '729 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 obvious under any reasonable construction.

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, 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. Todd C. Mowry (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

The '729 patent did not contribute any novel technology to the electronic coupon processing field. The distributed computing and database management technology needed to implement the coupon processing servers and point-of-sale terminals claimed in the '729 patent was well-known and established before the priority date. Ex-1003, ¶47.

For example, distributed computing architectures, particularly the client-server model, became prevalent in the 1990s, enabling remote hosts to interact with centralized servers over a network. Ex-1003, ¶¶51-52. Distributed systems facilitated the processing of transactions across multiple locations with a distributed user base. Ex-1003, ¶¶51-52. By the early 1990s, relational database management systems (RDBMS) had become the standard for enterprise data management, particularly within banks and financial institutions. Ex-1003, ¶¶48-49. By the early 2000s, RDBMS technologies had matured, leading to the rise of distributed databases, where data could be stored and processed across multiple servers in different geographic locations. Ex-1003, ¶¶50.

This technology was already being implemented in coupon processing systems years ahead of the priority date. Ex-1003, ¶¶53-60.

B. Summary of the Alleged Invention of the '729 Patent

The '729 patent describes a “system for validating, redeeming, and financially settling coupons.” Ex-1001, Abstract. Figure 1 is an example of the system:

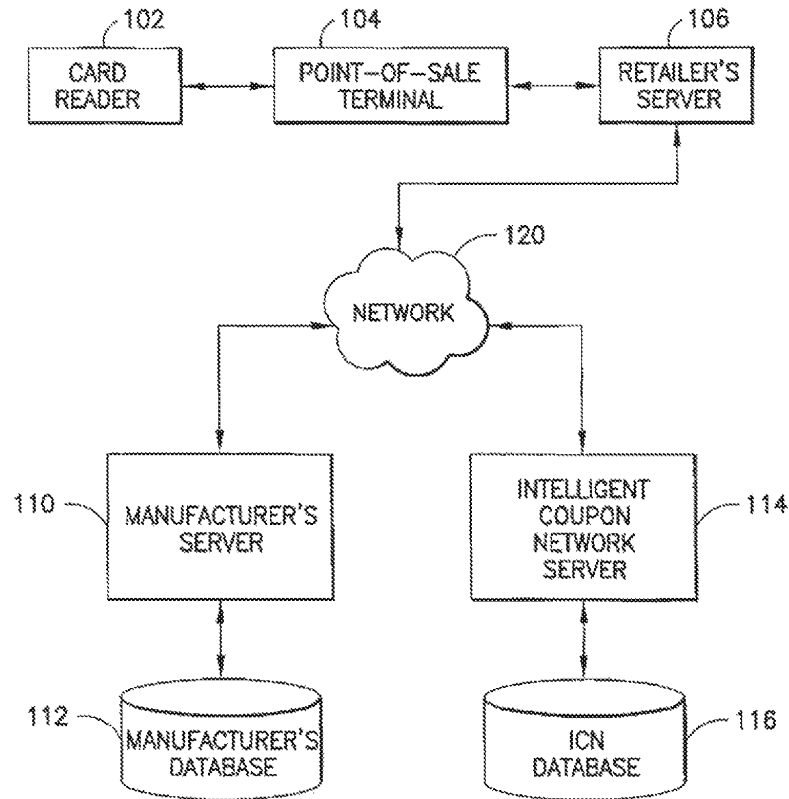


FIG.1

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, 6:41-46. 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, 6:60-7:8. The ICN server can then notify the manufacture of a completed transaction by sending information to manufacturer's server 110. Ex-1001, 7:22-25.

Against this structural backdrop of having points-of-sale, ICN server, and manufacturers, the '729 patent describes different aspects of couponing. For example, Figure 27 describes a way to validate and redeem coupons. Ex-1001, 40:29-41:14.

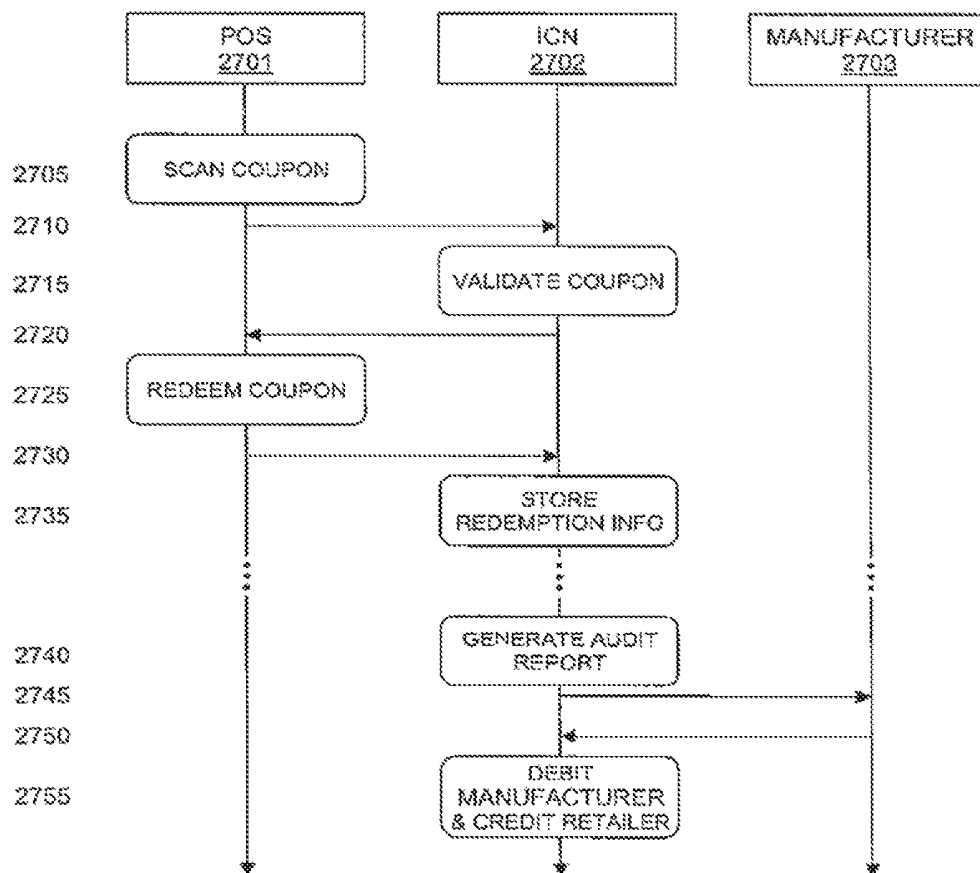


Figure 27

At point-of-sale terminal 2701, coupon information is received “during a[n] on-going transaction, for example, by scanning a coupon, a customer account ID card (which may be associated with various coupons in a database), etc.” Ex-1001, 40:30-34. Point-of-sale terminal 2701 also determines “data elements which include the coupon information and information of an item to be purchased,” but “[t]he data elements may also include data elements for additional coupon/items.” Ex-1001, 40:34-36, 40-41.

Next, at time 2710, the point-of-sale terminal “sends the data elements to an ICN server 2702 which is located at a separate/remote location (such as a centralized location serving multiple retail stores for example).” Ex-1001, 40:36-40.

Then, at time 2715, the “the ICN server 2702 validates the coupon.” Ex-1001, 40:43-45. The validation may be done “using the information of the item to be purchased (such as product code information)” and also “based on the expiration date, whether or not the coupon has been previously redeemed, etc.” Ex-1001, 40:43-48.

At time 2720, “[i]f the coupon is validated, the ICN server 2702 sends first coupon related information to the [point-of-sale] terminal 2701.” Ex-1001, 40:46-48. “The first coupon related information may include coupon codes, a coupon value code, etc.” Ex-1001, 40:49-50.

At time 2725, the point-of-sale terminal 2701 can redeem the coupon, and then at time 2730, send the “redeemed coupon related information to the ICN server 2702.” Ex-1001, 40:51-56. The redeemed coupon related information includes identification information from the product purchased. Ex-1001, 40:56-58 (“The redeemed coupon related information may identify the product purchased, GS1 application identifiers, and/or the retailer.”). The ICN server 2702 then “stores the redeemed coupon related information in a redeemed coupon database.” Ex-1001, 40:58-61.

At time 2740, “(such as, at the end of the day, after a given number of redemptions, etc. for example), the ICN server 2702 generates a coupon audit report based on the information stored in the redeemed coupon database.” Ex-1001, 40:62-65.

At time 2745, the “[t]he ICN server 2702 then sends this coupon audit report to a manufacturer 2703” who “may then review the coupon audit report and either approve the full report or selectively approve portions of the report.” Ex-1001, 40:66-41:3.

At time 2750, “[t]he manufacturer 2703 then sends approval for at least a portion of the coupon audit report to the ICN server 2702.” Ex-1001, 41:3-5. “At time 2755, the ICN server 2702 debits a bank account assigned to the manufacturer based on the portion of the coupon audit report that was approved and credits a bank

account assigned to the retailer based on the portion of the coupon audit report that was approved.” Ex-1001, 41:6-10.

Figure 26 also describes the aforementioned way to validate and redeem coupons. Ex-1001, 39:51-40:28.

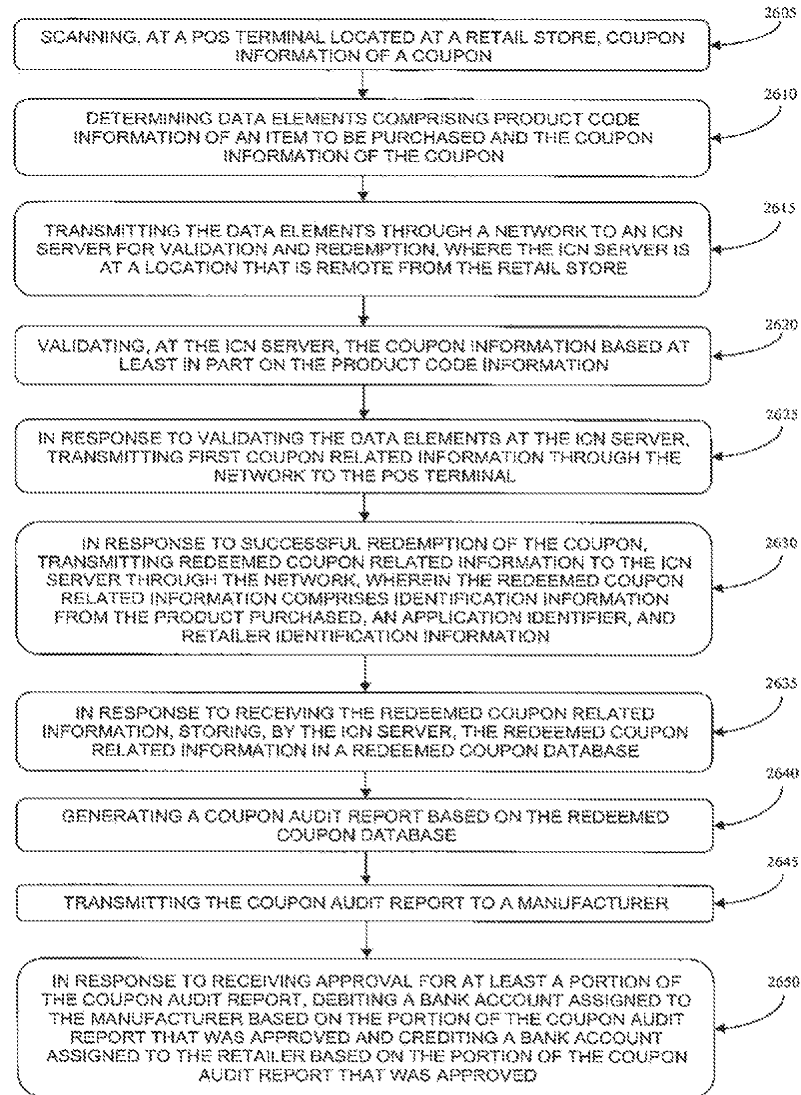


Figure 26

The '729 patent also states that the ICN server can monitor point-of-sale activity and track “forms of potentially fraudulent behavior.” Ex-1001, 45:21-22.

For example, “when a cashier ignores a fraud alert message” and still accepts a coupon. Ex-1001, 45:21-27.

C. Summary of the Prosecution History of the ’729 Patent

The application leading to the ’729 patent was filed on June 7, 2018. The ’729 patent stems from a series of continuation and continuation-in-part patent applications, the earliest three of which resulted in U.S. Patent Nos. 9,070,133, 9,098,855, and 8,386,309, while the next two never issued and went abandoned after the applicants did not respond to office actions rejecting the claims. *See* Ex-1009, 341-42; Ex-1010, 282-83.

During the prosecution of the ’729 patent, the examiner issued a double patenting rejection over the ’309, ’855, and ’133 patents. Ex-1002, 164-73. After the applicants filed terminal disclaimers, Ex-1002, 210-12, the examiner issued a notice of allowance, Ex-1002, 215-22. According to the examiner, the prior art did not disclose “a situation in which the coupon information of a pending transaction is transmitted to a server that is remote from the retail store in order to obtain coupon validation for the pending transaction and once the validation of the coupon is received back at the POS terminal completing the pending transaction by successfully redeeming the coupon.” Ex-1002, 220-21.

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, ¶23.

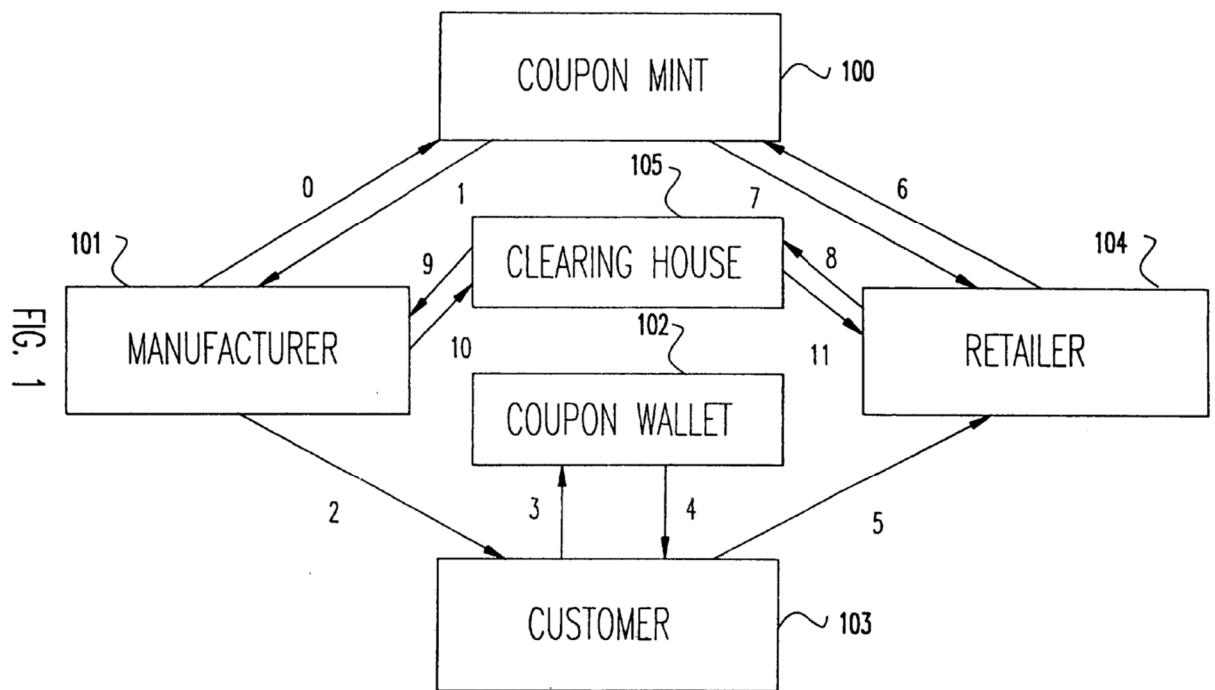
IV. GROUNDS OF UNPATENTABILITY

A. Ground 1: Aggrawal in View of Deaton Renders Obvious Claims 1, 5, 6, 10, 14, 16, and 19

1. Overview of Ground

a) Summary of Aggrawal

Aggrawal describes a method and system that “generates, distributes, stores, redeems, validates and clears electronic manufacturer coupons and electronic store coupons.” Ex-1004, Abstract; Ex-1003, ¶¶63-71. Figure 1 of Aggrawal shows a retailer 104, coupon mint 100, clearing house 105, and manufacturer 101. Ex-1004, 6:12-20. Aggrawal also explains that the coupon mint and clearing house can be performed by the same service provider. Ex-1004, 10:55-58.



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

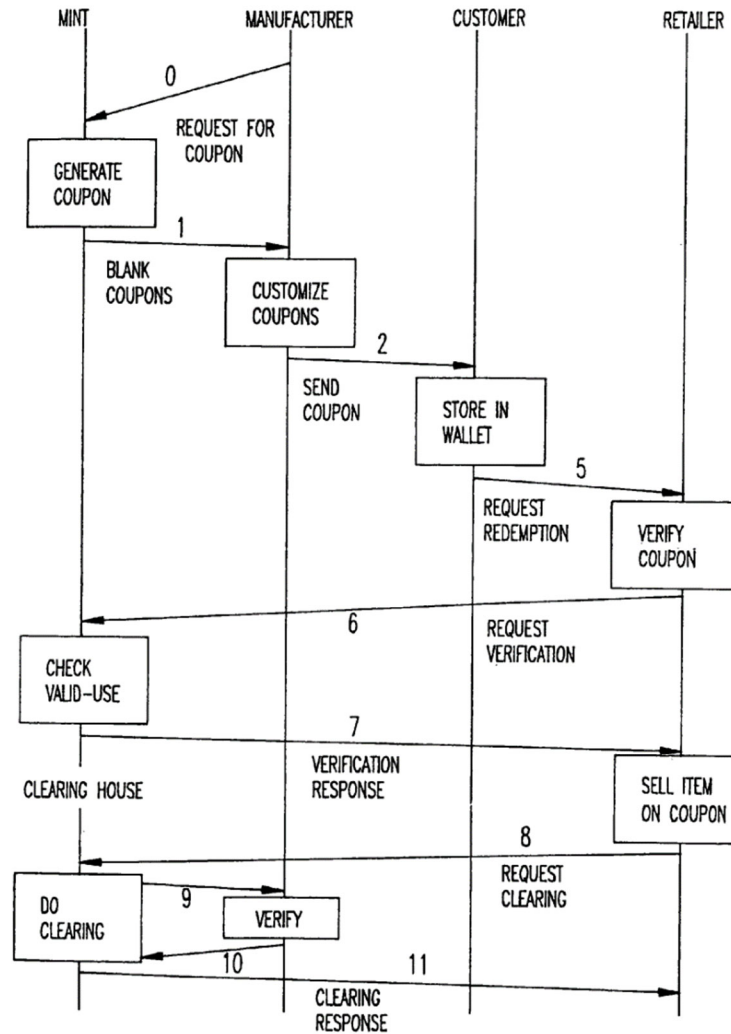


FIG. 2

Messages 0 to 2 describe the process for creating a coupon. Ex-1004, 12:3-43. Referring to both Figures 1 and 2, a customer 103 can go to a retailer 104 to purchase products. Ex-1004, 12:44-45. The customer can retrieve a coupon and use it at the retailer (message 5). Ex-1004, 12:50-52. The retailer 104 does an initial verification of the coupon (e.g., checks if it is expired) and then “sends a message to the coupon mint 100 to authorize the use of this coupon (message 6).” Ex-1004,

12:55-61. “It may also send some additional information related to the transaction like the transaction identifier, invoice number, or a proof of purchase etc to the verification center.” Ex-1004, 8:35-37. The coupon mint 100 validates the coupon and sends a certificate of use and other information, such as the coupon identifier and information about the appropriate discount, to the retailer (message 7). Ex-1004, 13:1-10. After the retailer receives the response, the retailer decides whether to honor the coupon, and if so, collects the coupon from the customer and provides her with the appropriate discount. Ex-1004, 13:11-15.

Next, the retailer “can send this coupon, along with transaction identifications, to the clearing house 105 for clearing, either immediately or later on, after periodic intervals (message 8).” Ex-1004, 13:16-19. The clearing house sends the coupons received to the manufacturer (message 9). Ex-1004, 13:19-21. The manufacturer confirms the transactions are legitimate, and “sends a confirmation message, possibly along with money, to the clearing house 105 (message 10).” Ex-1004, 13:21-28.

b) Summary of Deaton

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; Ex-1003, ¶¶72-77. Figure 1 shows a “system for providing point-of-sale information to a manufacturer.” Ex-1005, 2:42-43.

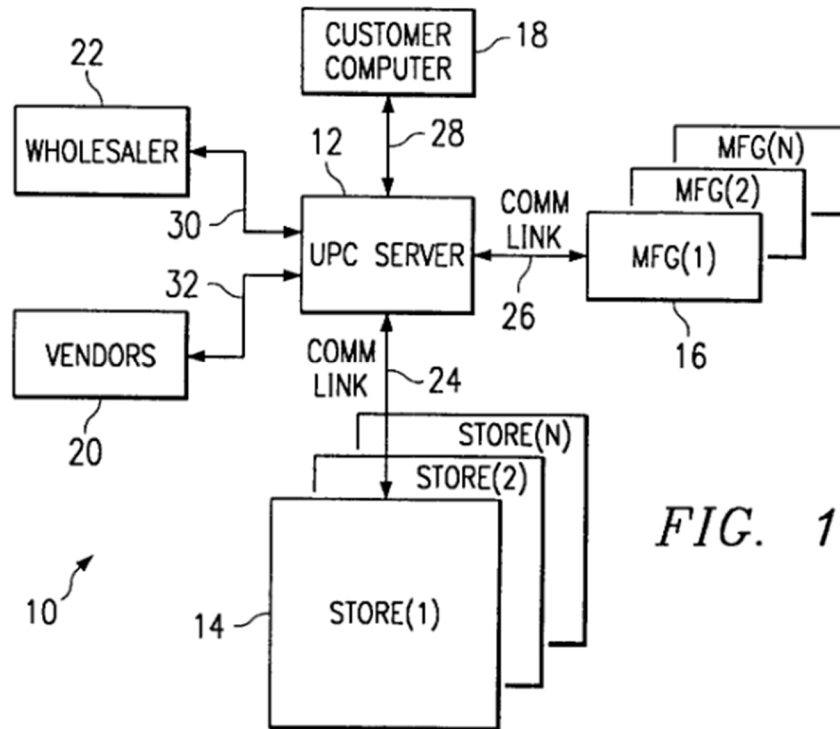


FIG. 1

In system 10, “UPC server 12 [is] connected to one or more stores 14 by a communication link 24.” Ex-1005, 3:32-35. Manufacturers 16 are also connected to UPC server by communication link 26. Ex-1005, 3:35-37. 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-1005, 3:47-49.

Figure 2A shows the details of store 14. Ex-1005, 2:44-47.

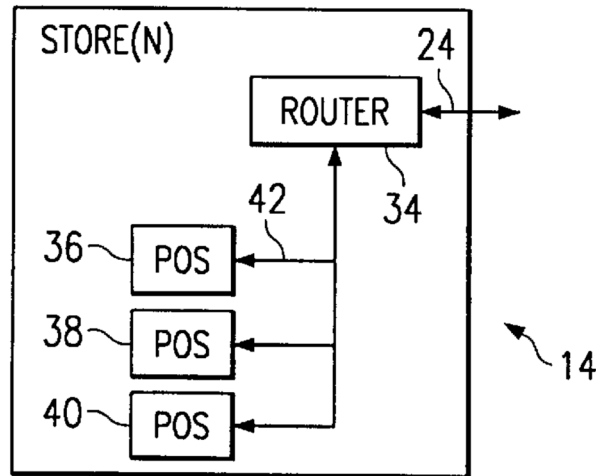


FIG. 2A

It “includes a plurality of points-of-sale 36, 38, and 40 [and e]ach of the points-of-sale is connected to a router 34 via a communication link 42.” Ex-1005, 4:22-27. Router 34 can receive information from points-of-sale and send that information, “over communication link 24 to UPC server 12, illustrated in” Figure 1. Ex-1005, 4:28-34.

c) Motivation to Combine

Aggrawal contemplates that the point-of-sale sends coupons and other information to the clearing house. Ex-1004, 5:51-52. (“The store sends these coupons and some optional additional information to the clearing house for consolidation and payment.”). Because of that teaching in Aggrawal, a POSITA seeking to implement a coupon redemption and validation as taught by Aggrawal would have looked to available couponing systems to determine what “optional

additional information” could advantageously be sent to the clearing house and how that information could be used. Ex-1003, ¶¶101-02.

A POSITA would have looked to Deaton, which discloses implementation details about the type of information that could be sent to a central server, such as a clearing house, and what the central server could do with that information. Ex-1003, ¶103. Deaton teaches that many different types of information could be sent from point-of-sale to a central server. *See infra* [1d] and [5]. Deaton also teaches that the central server could then use this information to check that the point-of-sale properly redeemed a coupon. *See infra* [1e].

As combined, Aggrawal/Deaton would have provided a coupon redemption and validation system that would have allowed a central server to receive information about the point-of-sale that would allow the central server to determine whether the point-of-sale properly redeemed a coupon. Ex-1003, ¶104. A POSITA would have been motivated to implement this configuration in Aggrawal because Aggrawal both describes how information can be sent from the point-of-sale to a central server and describes the benefit of including additional information. Ex-1003, ¶105. Accordingly, a POSITA would have modified Aggrawal to incorporate coupon processing functionality as taught by Deaton. Ex-1003, ¶106.

A POSITA would have also understood that including Deaton’s functionality in Aggrawal would have enhanced Aggrawal. Ex-1003, ¶107. A POSITA would

have known that sending more information from the point-of-sale to the central server would have provided numerous advantages. Ex-1003, ¶108. For example, sending more information would have allowed the central server to generate more detail reports regarding coupon redemption activity. Ex-1003, ¶108. A POSITA would have understood that more data would be more valuable to manufacturers. Ex-1003, ¶108. For example, a POSITA would have been aware that many coupons go unredeemed and a manufacturer would find more information about coupons that are redeemed valuable in determining how to deploy future coupons. Ex-1003, ¶108. A POSITA would have also known that using a central server to confirm that a coupon was properly redeemed at the point-of-sale would help combat erroneous redemptions at the point-of-sale. Ex-1003, ¶109. For example, a POSITA would have been aware that coupon fraud was a concern, including where a point-of-sale improperly redeems a coupon. Ex-1003, ¶109.

In addition, both Aggrawal and Deaton teach coupon system with numerous similarities, including having information transmitted from a point-of-sale to a central sever. Ex-1003, ¶110. As a result, including Deaton's functionality in Aggrawal would have used known methods (sending additional information and then using that information to verify proper redemption) to improve Aggrawal's coupon redemption and validation system. Ex-1003, ¶110.

A POSITA would have reasonably been expected to succeed in combining the teachings of Aggrawal and Deaton. Ex-1003, ¶111. Implementation of Deaton's functionality would have required only routine knowledge because Aggrawal 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, ¶111. Such a combination would have been straightforward, requiring only a minor modification. Ex-1003, ¶111. Thus, a POSITA would have a reasonable expectation of success.

2. Detailed Analysis of Ground 1

1) [1pre]: A method comprising:

If the preamble is limiting, the Aggrawal/Deaton combination renders obvious [1pre]. Ex-1003, ¶112. Aggrawal discloses “[a] method and system generates, distributes, stores, redeems, validates and clears electronic manufacturer coupons and electronic store coupons.” Ex-1004, Abstract, 1:8-11, 4:37-39, claims 1-45.

2) [1a]: receiving, at an ICN server from a retail server, first coupon or incentive information including universal product code information of an item to be purchased at a retail business, the first coupon or incentive related information having been input to a terminal in the retail business and transmitted from the terminal to the retail server, the ICN server being at a location that is remote from the retail business;

The Aggrawal/Deaton combination renders obvious [1a]. Ex-1003, ¶¶113-24.

[1a.1] “receiving, at an ICN server from a retail server”: Aggrawal discloses a coupon mint, verification center, verification equipment, and clearing house (collectively the *ICN server*) that are connected to and can receive (*receiving*) information from a retailer (*from a retail server*). For example, although Aggrawal refers to the coupon mint, verification center, verification equipment and clearing house using different names, Aggrawal discloses that these functionalities may be provided by the same service provider. Ex-1004, 10:55-58 (“[T]he customization equipment, the coupon mint, and the coupon wallet are operated by the same service provider, which also performs the role of distribution agent and the clearing house.”), 10:32-33 (“[T]he verification center and the coupon mint are operated by the same Service provider.”), 10:59-61 (“[A]ny combination of equipments described above may be operated by different service providers.”). Further, Aggrawal provides an example where “[t]he coupon mint 100 also plays the role of verification center.” Ex-1004, 6:19-20. Thus, although Aggrawal refers to the coupon mint, verification center, verification equipment, and clearing house using different names, a POSITA would have understood that all of the preceding could

be performed by the same entity and thus operate collectively as a “server system” and thus they collectively satisfy the claimed *ICN server*.² Ex-1003, ¶115.

Aggrawal also discloses that the coupon mint, verification center, verification equipment, and clearing house can communicate and receive information from the retailer. Ex-1004, Figs. 1 and 2 (messages 6 and 8), 4:52-55 (“The store may check the authenticity of a coupon by verifying the digital signature and also verifying if the coupon has not been used earlier by contacting a verification center.”), 12:55-67 (“[T]he retailer 104 sends a message to the coupon mint 100 to authorize the use of this coupon (message 6).”), 13:16-19 (“The retailer 104 now can send this coupon, along with transaction identifications, to the clearing house 105 for clearing, either immediately or later on, after periodic intervals (message 8).”); *see also id.* at Abstract, 5:15-18, 8:26-40, 13:46-48, 13:64-66, 14:11-13, claims 1 and 24. A POSITA would have understood that a system that communicates with another system over a network (e.g., between the coupon mint/clearing house and retailer) as shown in Aggrawal can be considered a server and thus what Aggrawal shows a

² For ease, this petition may continue to refer to the coupon mint, verification center, verification equipment, and clearing house using separate names. However, as used in this petition, all four names are referring to the same thing that is provided by the same service provider.

retailer 104 is a retail server and what Aggrawal shows as coupon mint and clearing house is a server (e.g., an ICN server). Ex-1003, ¶116.

[1a.2] “first coupon or incentive information including universal product code information of an item to be purchased at a retail business”: Aggrawal explains that when a customer wants to buy a product at a store (*an item to be purchased at a retail business*), the store can check the authenticity of a coupon or incentive information by sending it (*first coupon or incentive information*) and additional information about the transaction (*universal product code information*) to the verification center, verification equipment, or coupon mint.³ For example, Aggrawal discloses that a customer that wants to buy a product can provide a coupon to the store, and then the store can send the coupon and additional information to the verification center, verification equipment, or coupon mint. Ex-1004, 5:45-47, 8:33-37, 9:53-57, 10:7-11, 10:12-21, 12:44-54, 12:55-67, 13:46-48, 13:63-66, 14:11-13. A POSITA would have understood that Aggrawal teaches additional information

³ The '729 patent explains that “[a] coupon as used herein is generally a paper, plastic, or other sufficiently physically durable incentive or discount” and “[a]n incentive may be a non-paper (e.g., purely electronic) discount (e.g., a discount not embodied on a physical medium) provided via an in-store, web or mobile device delivery.” 15:34-42. The '729 patent also explains that a point-of-sale terminal can scan “coupon information of a coupon” or that it “receives coupon information during a on-going transaction, for example, by scanning a coupon, a customer account ID card (which may be associated with various coupons in a database), etc.” Ex-1001, 39:54-60, 40:30-36.

that could be sent to the verification center, verification equipment, or coupon mint that includes the universal product code information of the product the customer wants to purchase. Ex-1003, ¶119. For example, Aggrawal explains that the coupon may have different types of information on it, including “[i]nformation describing some discounted product or service. In case of a product, a universal product code (UPC) may be used to identify the product.” Ex-1004, 6:58-7:2. Aggrawal further explains that the verification equipment may use UPC information to determine the appropriate discount. Ex-1004, 6:58-7:9. Thus, a POSITA would have understood that the UPC information of the product to be purchased could also be sent to the verification equipment and/or center. Ex-1003, ¶¶119-21.

[1.a.3]: “the first coupon or incentive related information having been input to a terminal in the retail business”: Aggrawal discloses that a customer can present a coupon at a store (*the first coupon or incentive related information having been input to a terminal in the retail business*). For example, Aggrawal discloses that the coupon may have a machine-readable bar code which can be read by an optical character device. Ex-1004, 10:2-7. Aggrawal discloses that a customer can then take the coupon and present at a store. Ex-1004, Abstract, 5:38-41, 12:44-54. A POSITA would have understood that by presenting it at the store, a cashier would scan the coupon at a point-of-sale terminal. Ex-1003, ¶123. For example, in discussing the

state of the art, Aggrawal describes how cashiers can scan coupon bar codes. Ex-1004, 2:4-6; Ex-1003, ¶¶122-23.

[1.a.4] the ICN server being at a location that is remote from the retail business:

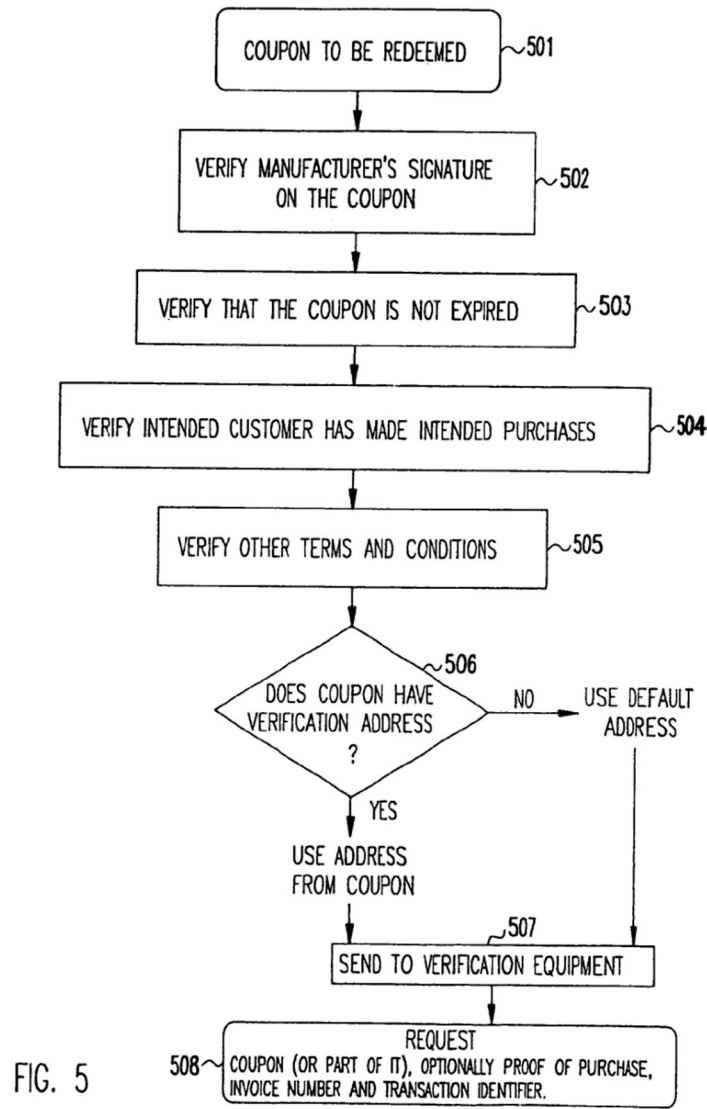
Aggrawal discloses that the coupon mint, verification center, verification equipment, and clearing house (collectively the *ICN server*) can be at a different location (*being at a location that is remote from*) from the store (*the retail business*). Ex-1004, Fig. 1, 7:60-8:3, 10:59-61 (“In other embodiments of this invention, any combination of equipments described above may be operated by different service providers.”); Ex-1003, ¶124.

- 3) **[1b]: validating, at the ICN server, 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 Aggrawal/Deaton combination renders obvious [1b]. Ex-1003, ¶¶125-35. Aggrawal discloses that the coupon mint, verification center, verification equipment, or clearing house (*at the ICN server*) can verify the coupon (*validating . . . the first coupon or incentive related information by performing a comparison of the first coupon or incentive related information*) using the universal product code information of the product the customer wants to purchase (*based at least in part on*

the universal product code information).⁴ For example, Aggrawal discloses that the verification center or verification equipment can verify the coupon. Ex-1004, Abstract (“The store may check the authenticity of a coupon by verifying the digital signature and also verifying if the coupon has not been used earlier by contacting a verification center.”), Figs. 2, 3, and 5, 5:32-42, 8:26-52, 8:53-9:18, 9:53-57, 10:20-21, 10:62-12:2 (describing different types of coupons and when the criteria for determining whether the coupon is valid), 12:55-67, 13:1-10, 13:46-57, 13:64-14:5, 14:11-19. For example, in Figure 5, Aggrawal shows how “[w]hen the customer redeems a coupon, it must be verified.” Ex-1004, 14:53-15:21.

⁴ The '729 patent explains that “the ICN server 2702 validates the coupon using the information of the item to be purchased (such as product code information). The ICN server 2702 may also validate the coupon based on the expiration date, whether or not the coupon has been previously redeemed, etc.” Ex-1001, 40:42-46.



Aggrawal provides several examples of how coupon verification may occur. For example, Aggrawal discusses “early bird coupons” where a coupon is valid for “only the first n [number of] coupons” redeemed. Ex-1004, 10:62-11:6. In that circumstance, the verification center determines how many times the specific coupon has been redeemed. Ex-1004, 10:62-11:6, 13:38-57. Aggrawal also discusses coupons that may be based on the type of product(s) being purchased:

“[t]here may be more than one product information on the coupon, i.e., the discount is applicable only if the customer purchases all the products specified. For instance, promotions, e.g., buy a computer and get 50% on a table, or buy one and get another free. Information describing the amount of discount offered.” Ex-1004, 6:65-7:2; *see also id.* at 4:57-67, 11:44-53 (“present invention may be used for offering targeted . . . discounts on different products and services, offer different promotional schemes on different products, or combination of products”). A POSITA would have understood that to offer a discount based on products being purchased, the verification center would need to verify that the product the coupon is intended for is being purchased. Ex-1003, ¶¶130-31. A POSITA would have also understood that universal product codes were a standard way to identify products being purchased at a retail store. Ex-1003, ¶132. For example, Aggrawal discloses that “a universal product code (UPC) may be used to identify the product.” Ex-1004, 6:59-60. A POSITA would have understood that universal product code information is routinely captured at the point-of-sale, and would have understood that universal product code could be transmitted to the verification center, such that before providing a discount to the customer, the verification center would verify that the pertinent product(s) covered by the coupon. Ex-1003, ¶133. Aggrawal even discloses that additional information may be sent to the verification center to aid in the verification process. Ex-1004, 5:45-47, 8:33-37 (“It may also send some additional information related

to the transaction like the transaction identifier, invoice number, or a proof of purchase etc. to the verification center.”). A POSITA would have understood that universal product information is one of the pieces of additional information that could be sent to the verification center, and that the verification center could verify the coupon by making sure the relevant universal product code was being purchased. Ex-1003, ¶¶134-35.

- 4) **[1c]: in response to validating the first coupon or incentive related information, transmitting from the ICN server to the retail server, coupon or incentive codes triggered by the validation of the first coupon or incentive related information;**

The Aggrawal/Deaton combination renders obvious [1c]. Ex-1003, ¶¶136-38. Aggrawal discloses that after verifying the coupon (*in response to validating the first coupon or incentive related information*), coupon mint, verification center, verification equipment, or clearing house sends (*transmitting from the ICN server*) to the store (*to the retail server*) a certificate of use based on the verification of the coupon (*coupon or incentive codes triggered by the validation of the first coupon or incentive related information*). For example, Aggrawal discloses that when a coupon is verified, the verification center will send a certificate of use to the store, and depending on the coupon type, the certificate use may contain information on the number of times the coupon has been used, a random number that could be used to compute the discount, or any other additional information. Ex-1004, 8:53-9:18;

see also id. at Figs. 2, 3, 5:45-51, 8:26-52, 13:1-10, 13:48-57, 13:66-14:5, 14:13-19, 15:5-21.

- 5) [1d]: receiving, at the ICN server from the retail server, redeemed coupon related information indicating successful redemption of a coupon, wherein the redeemed coupon related information comprises identification information from a product purchased, customer identification information, an application identifier, and retailer identification information;

The Aggrawal/Deaton combination renders obvious [1d]. Ex-1003, ¶¶139-46.

[1d.1] “receiving, at the ICN server from the retail server, redeemed coupon related information indicating successful redemption of a coupon”:

Aggrawal discloses that clearing house can receive (*receiving, at the ICN server*) from the store (*from the retail server*), information about coupons that have been redeemed (*redeemed coupon related information indicating successful redemption of a coupon*). For example, Aggrawal discloses that after the store redeems the coupons, “[t]he store sends these coupons and some optional additional information to the clearing house for consolidation and payment.” Ex-1004, 5:51-55; *see also id.* at Abstract, Figs. 1, 2, 9:59-63, 13:16-21, claims 1, 43. A POSITA would have recognized that Aggrawal sent coupons to the clearing house for “payment” or when the retailer decided to honor the coupon. Ex-1004, 5:51-55, 13:11-27 (“If the retailer decides to honor the coupon, the retailer collects the coupon from the customer and gives him or her the mentioned discount. The retailer 104

now can send this coupon, along with transaction identifications, to the clearing house 105 for clearing, either immediately or later on, after periodic intervals (message 8).”). As a result, a POSITA would have recognized that the sending of information to the clearing house meant the coupon was successfully redeemed at the store. Ex-1003, ¶¶141-42.

[1d.2] “comprises identification information from a product purchased, customer identification information, an application identifier, and retailer identification information”: Aggrawal further discloses that additional information can be sent to the clearing house. Ex-1004, 5:51-55 (“some optional additional information”). The combination of Aggrawal in view of Deaton teaches [1d.2] because Deaton provide several examples of information that can be transmitted from a point-of-sale to a clearing house, including customer IDs (*customer identification information*), UPC codes (*application identifier*), and store identification (*retailer identification information*).⁵ For example, Deaton discloses information from the point-of-sale that can be transmitted to the UPC server, include “[s]uch point-of-sale information may include UPC codes for purchased products,

⁵ A POSITA would have understood that an application identifier is a standard portion of the GS1 bar code that is used both in UPC codes for coupons and purchased products. Ex-1003, ¶144. The ’729 patent also refers to an application identifier in the context of the GS1 standard. Ex-1001, 1:23-24.

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.” Ex-1005, 3:53-4:3. A POSITA would have understood that UPC codes for both purchased products and redeemed coupons have an application identifier, as it is part of the standard for UPC codes. Ex-1003, ¶¶145-46.

6) [1e]: in response to receiving the redeemed coupon related information, determining whether the redemption of the coupon was valid based on the redeemed coupon related information; and

The Aggrawal/Deaton combination renders obvious [1e]. Ex-1003, ¶¶147-52. Aggrawal discloses that after receiving information about the coupons redeemed (*in response to receiving the redeemed coupon related information*), reports are generated by the clearing house. Ex-1004, 5:51-55 (“The clearing house sorts these coupons and generates reports and sends the reports and coupons to the manufacturers.”). However, Aggrawal does not provide details about the reports generated by the clearing house. The combination of Aggrawal in view of Deaton teaches [1e] because Deaton explains the clearing house can verify the proper

redemption of a coupon (*determining whether the redemption of the coupon was valid*). For example, Deaton discloses that the “manufacturer may verify the proper redemption of a manufacturer coupon and provide an appropriate credit to store 14” but also that “UPC server 12 may include circuitry and/or software 70 for also performing this validation.” Ex-1005, 10:51-11:6.

Deaton also discloses that this verification can be based on customer identification, UPC codes, and store identification (*based on the redeemed coupon related information*). For example, Deaton discloses that “[s]uch 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.” Ex-1005, 10:51-11:6. A POSITA would have understood that this verification could be based on the store identity. Ex-1003, ¶¶150-52. For example, Deaton discloses that other point-of-sale information that can be transmitted to the clearing house includes “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.” Ex-1005, 3:53-4:3. This is consistent with Aggrawal, for example, because Aggrawal discloses that the clearing house can consolidate information from various

retailers. Ex-1004, 13:19-21 (“The clearing house 105 consolidates the coupons received from various retailers.”). As a result, a POSITA would have understood that the clearing house may receive information about the identity of a store to generate a report about coupons received from various retailers. Ex-1003, ¶¶150-52. Aggrawal also provides non-limiting examples of various coupon types, such as a “pizza shop may give discount coupons that are only applicable on Tuesdays.” Ex-1004, 10:12. A POSITA would have understood that determining whether the redemption of such a coupon was valid involves knowing the identity of the redeeming store (e.g., whether it was redeemed at the pizza shop). Ex-1003, ¶¶150-52.

- 7) **[1f]: storing, by the ICN server, the redeemed coupon related information in a redeemed coupon database, where the redeemed coupon database comprises a plurality of redeemed coupon related information received from a plurality of retailer servers.**

The Aggrawal/Deaton combination renders obvious [1f]. Ex-1003, ¶¶153-59. Aggrawal discloses that the verification center and clearing house can store (*storing, by the ICN server*) information about the redeemed coupons (*information in a redeemed coupon database*). For example, Aggrawal discloses that the verification center can store information about redeemed coupons in a database. Ex-1004, 8:62-63 (“This may be done by maintaining a database of redeemed coupons”). Aggrawal also discloses that the clearing house can generate reports of coupons received from

various retailers. Ex-1004, 13:19-21. A POSITA would have recognized that a database could be used to store information and then queried by software to provide a summary report because databases were well-known storage technologies available at the time and well known to be efficient for storage of this type of information. Ex-1003, ¶¶155-56.

Aggrawal further discloses that the clearing house can receive redeemed coupon information from various retailers (*received from a plurality of retailer servers*). Aggrawal also discloses that the clearing house can generate reports of coupons received from various retailers. Ex-1004, 13:19-21 (“The clearing house 105 consolidates the coupons received from various retailers and sends them to the manufacturer (message 9).”).

Aggrawal specifies storing redeemed coupons in a database and, as explained in [1e], the redeemed coupon related information is used to determine whether the coupon was valid. A POSITA would have recognized that Aggrawal’s database for storing redeemed coupons would include information to determine whether the coupon was validly redeemed, because databases were well-known storage technologies available at the time and well known to be efficient for storage and analysis of this type of information. Ex-1003, ¶¶158-59.

- 8) Claim 5: The method as in claim 1, wherein the redeemed coupon related information comprises information regarding a consumer’s transaction**

including at least one of: date, time, store, lane, total dollar amount spent, customer ID and universal product codes.

The Aggrawal/Deaton combination renders obvious [5]. Ex-1003, ¶¶160-63. As explained in [1d.2], Deaton provide several examples of information that can be transmitted from a point-of-sale to a clearing house including customer ID (*customer ID*) and UPC codes (*universal product codes*). For example, Deaton discloses information from the point-of-sale that can be transmitted to the UPC server, include “[s]uch 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.” Ex-1005, 3:53-4:3.

9) Claim 6: The method as in claim 1, where the ICN server is configured to communicate with a plurality of retail servers.

The Aggrawal/Deaton combination renders obvious [6]. Ex-1003, ¶¶164-66. Aggrawal discloses that the clearing house may (*where the ICN server is*) receive information from various retailers (*configured to communicate with a plurality of*

retail servers). For example, Aggrawal discloses that clearing house may receive coupons from “various retailers.” Ex-1004, 13:19-21.

- 10) **[10pre]: An ICN server comprising a processor; and a memory including computer program code, the memory and the computer program code configured to, with the processor, cause the ICN server to perform at least the following:**

See supra [1pre]; Ex-1003, ¶¶167-69. A POSITA would have understood that Aggrawal’s disclosure that the coupon mint, verification center, verification equipment, and clearing house are servers (*see supra* [1a]) to mean that the server had a processor, memory, and computer program code. Ex-1003, ¶¶168.

- 11) **[10a]: to receive, at an ICN server, first coupon or incentive information including universal product code information of an item to be purchased at a retail business, the first coupon or incentive related information having been input to a terminal in the retail business, the ICN server being at a location that is remote from the retail business;**

See supra [1a]; Ex-1003, ¶170.

- 12) **[10b]: to validate, at the ICN server, 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;**

See supra [1b]; Ex-1003, ¶171.

- 13) **[10c]: to transmit from the ICN server, in response to validation of the first coupon or incentive related information, coupon or incentive codes triggered by**

the validation of the first coupon or incentive related information, the coupon or incentive codes triggered being useable by the terminal to redeem the first coupon or incentive information;

The Aggrawal/Deaton combination renders obvious [10c]. *See supra* [1c]; Ex-1003, ¶¶172-74. Aggrawal further discloses that the certificate of use based on the verification of the coupon can be used by the point-of-sale to redeem the coupon (*the coupon or incentive codes triggered being useable by the terminal to redeem the first coupon or incentive information*). For example, Aggrawal discloses that the point-of-sale can use the certificate of use to provide a discount to the customer. Ex-1004, Fig. 2, 8:40-52 (“[O]therwise, the mathematical or logical expression written on the coupon need to be evaluated on parameters contained in the certificate of use to compute the discount amount.”), 11:1-6, 11:12-16, 14:1-5, 14:15-19.

- 14) [10d]: to receive, at the ICN server from a retail server located in a retail business located at a first location, redeemed coupon related information indicating successful redemption of a coupon, wherein the redeemed coupon related information comprises identification information from a product purchased, customer identification information, an application identifier, and retailer identification information and where the ICN server is at a second location that is remote from the first location; in response to receiving the redeemed coupon related information, to determine whether the redemption of the coupon was valid based on the redeemed coupon related information; and

The Aggrawal/Deaton combination renders obvious [10d]. *See supra* [1d]-[1e]; Ex-1003, ¶¶175-77. Aggrawal further discloses that the claimed “ICN server” is at a location that is remote from the claimed “retail business.” *See supra* [1a]; Ex-1003, ¶¶113-24. A POSITA would have understood that Aggrawal was disclosing that if the ICN server is a remote location from the retail business, then the retail store is at one location (*retail server located in a retail business located at a first location*) and the ICN server is at a different location (*the ICN server is at a second location that is remote from the first location*). Ex-1003, ¶177.

- 15) [10e]: to store, by the ICN server, the redeemed coupon related information in a redeemed coupon database, where the redeemed coupon database comprises a plurality of redeemed coupon related information received from a plurality of retailer servers.

See supra [1f]; Ex-1003, ¶178.

- 16) Claim 14: The ICN server as in claim 10, wherein the redeemed coupon related information comprises information regarding a consumer’s transaction including at least one of: date, time, store, lane, total dollar amount spent, customer ID and universal product codes.

See supra [5]; Ex-1003, ¶179.

- 17) [16pre]: A computer readable medium tangibly encoded with a computer program executable by a processor to perform actions comprising:

See supra [10pre]; Ex-1003, ¶180.

- 18) [16a]: receiving, at an ICN server, first coupon or incentive information including universal product code information of an item to be purchased at a retail business, the first coupon or incentive related information having been input to a terminal in the retail business, the ICN server being at a location that is remote from the retail business;

See supra [10a]; Ex-1003, ¶181.

- 19) [16b]: validating, at the ICN server, 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;

See supra [10b]; Ex-1003, ¶182.

- 20) [16c]: in response to validating the first coupon or incentive related information, transmitting from the ICN server, coupon or incentive codes triggered by the validation of the first coupon or incentive related information, the coupon or incentive codes triggered being useable by the terminal to redeem the first coupon or incentive information;

See supra [10c]; Ex-1003, ¶183.

- 21) [16d]: receiving, at the ICN server from a retail server in a retail business located at a first location, redeemed coupon related information indicating successful redemption of a coupon, wherein the redeemed coupon related information comprises identification information from a product purchased, customer identification information, an application identifier, and retailer identification information and where the ICN server is at a second location that is remote from the first location;

See supra [10d]; Ex-1003, ¶184.

- 22) [16e]: in response to receiving the redeemed coupon related information, determining whether the redemption of the coupon was valid based on the redeemed coupon related information; and**

See supra [10e]; Ex-1003, ¶185.

- 23) [16f]: storing, by the ICN server, the redeemed coupon related information in a redeemed coupon database, where the redeemed coupon database comprises a plurality of redeemed coupon related information received from a plurality of retailer servers.**

See supra [10f]; Ex-1003, ¶186.

- 24) Claim 19: The computer readable medium as in claim 16, wherein the redeemed coupon related information comprises information regarding a consumer's transaction including at least one of date, time, store, lane, total dollar amount spent, customer ID and universal product codes.**

See supra [5]; Ex-1003, ¶187.

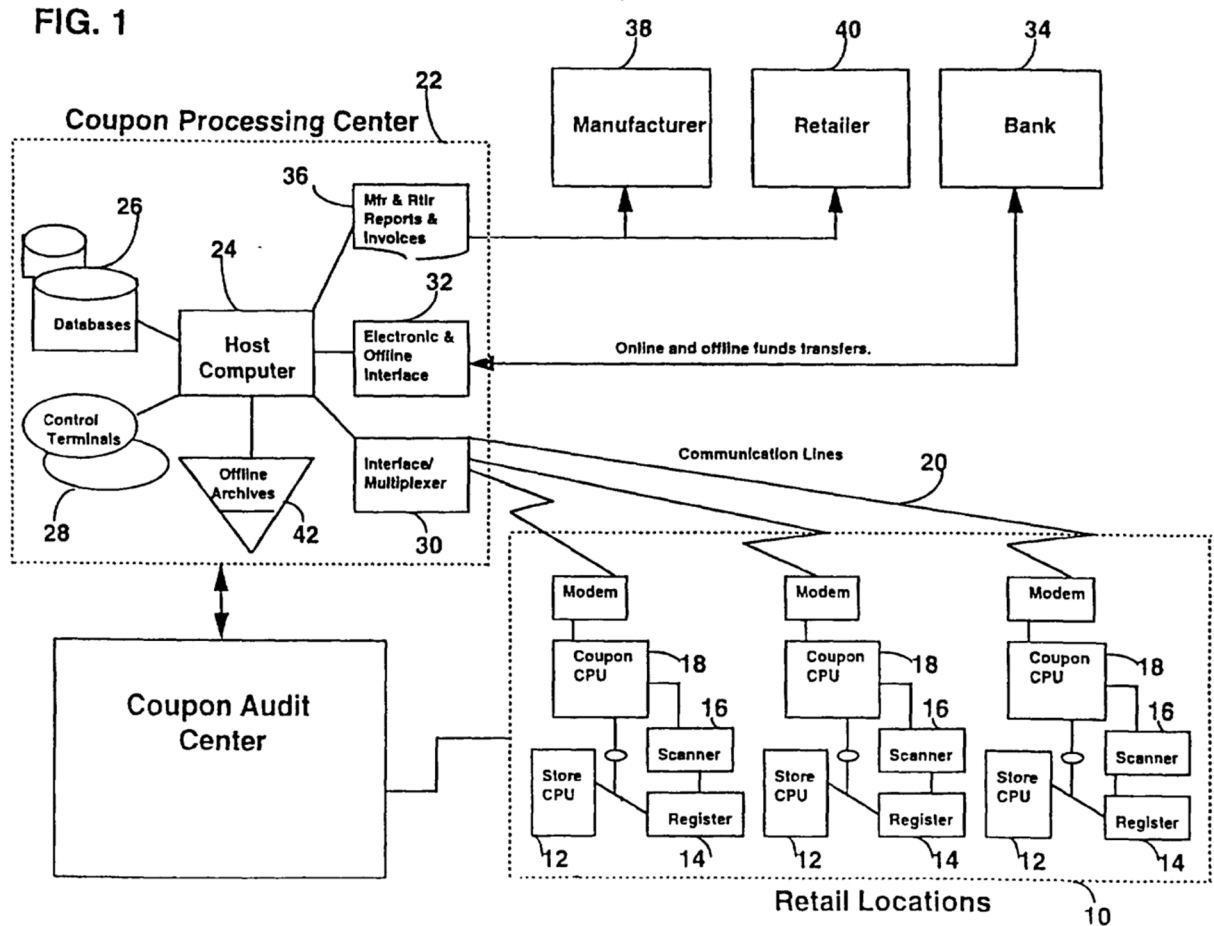
B. Ground 2: Aggrawal in View of Deaton and Granger Renders Obvious Claims 2-4, 12, 13, 17, and 18

1. Overview of Ground

a) Summary of Granger

Granger “relates generally to systems or processing bar-coded discount coupons of the type used to promote retail sales, such as in supermarkets.” Ex-1006, ¶[0001]; Ex-1003, ¶¶78-87. Specifically, Granger relates to “‘clearing’ such coupons, i.e., ensuring that each coupon collected by a retailer from a customer

results in an agreed payment to the retailer from the manufacturer that produced the coupon, and deriving information from the coupon to include in reports to the manufacturer.” Ex-1006, ¶[0001]. Figure 1 shows retail stores in the lower right, which send information to coupon processing center 22. Ex-1006, ¶[0021].



The coupon processing center “generates manufacturer and retailer reports and invoices” and may “communicat[e] with a bank 34 or other financial institution to perform electronic funds transfers (EFT).” Ex-1006, ¶[0022].

b) Motivation to Combine

Aggrawal/Deaton contemplates that a central server generates a report and that the manufacturer will remit payment to the retailer for properly redeemed coupons. Ex-1004, 5:53-58 (“The clearing house sorts these coupons and generates reports and sends the reports and coupons to the manufacturers. The manufacturer checks the transactions for authenticity and, on being satisfied, pays the money to the retailer either directly or through some intermediary.”). A POSITA seeking to implement a coupon redemption and validation as taught by Aggrawal/Deaton would have looked to available couponing systems to determine what information is included in the reports and how the payment is transferred between the manufacturer and retailer. Ex-1003, ¶189.

A POSITA would have looked to Granger, which discloses implementation details about what could be contained in a report to a manufacturer and how payment is sent from a manufacturer to a retailer. Ex-1003, ¶¶190-91. Granger teaches that a report may contain both summary and detailed information, including information by store and date. *See infra* [4]. Granger also teaches that the central server could, using EFT, receive money from a manufacturer and sending money to a retailer. *See infra* [2b].

As combined, Aggrawal/Deaton/Granger would have provided a coupon redemption and validation system that would have allowed a central server to

provide a summary report about redeemed coupons that contained useful information to a manufacturer and seamlessly transferred money between a manufacturer and retailer. Ex-1003, ¶192. A POSITA would have been motivated to implement this configuration in Aggrawal/Deaton because Aggrawal/Deaton describes providing a report and having the manufacturer pay a retailer. Ex-1003, ¶193.

A POSITA would have also understood that including Granger's functionality would have enhanced Aggrawal/Deaton. Ex-1003, ¶194. A POSITA would have known that providing a summary report with useful information would have provided numerous advantages. Ex-1003, ¶195. For example, sending more information would also cause the central server to generate more detail reports regarding coupon redemption activity. Ex-1003, ¶196. A POSITA would have understood that more data would be more valuable to manufacturers. Ex-1003, ¶197. A POSITA would have also known that using a central server to transfer money between a manufacturer and retailer would have made payments faster and more efficient. Ex-1003, ¶197.

In addition, both Aggrawal/Deaton and Granger teach coupon system with numerous similarities, including providing reports and having the manufacturer send payment to the retailer. Ex-1003, ¶198. As a result, including Granger's functionality

in Aggrawal/Deaton would have used known methods to improve Aggrawal/Deaton's couponing system. Ex-1003, ¶199.

A POSITA would have reasonably been expected to succeed in combining the teachings of Aggrawal/Deaton and Granger. Ex-1003, ¶200. Implementation of Granger's functionality would have required only routine knowledge because Aggrawal/Deaton already contemplated providing reports and sending money. Ex-1003, ¶200. Such a combination would have been straightforward, requiring only a minor modification. Ex-1003, ¶200. Thus, a POSITA would have a reasonable expectation of success.

2. Detailed Analysis of Ground 2

1) [2pre]: The method as in claim 1, further comprising: generating a coupon audit report based on the redeemed coupon database;

The Aggrawal/Deaton/Granger combination renders obvious [2pre]. Ex-1003, ¶¶201-04. Aggrawal discloses that the clearing house can provide a summary of the coupons redeemed (*generating a coupon audit report based on the redeemed coupon database*). For example, Aggrawal discloses that "[t]he clearing house 105 consolidates the coupons received from various retailers and sends them to the manufacturer (message 9)." Ex-1004, 13:19-21; *see also id.* at 5:53-55 ("The clearing house sorts these coupons and generates reports and sends the reports and coupons to the manufacturers."). As explained in [1f], a POSITA would have

recognized that this summary could be generated based on information stored in a database on the UPC server (*based on the redeemed coupon database*) and would have recognized that a summary of the number and amount of coupons would be considered an audit report.

2) [2a]: transmitting the coupon audit report to a manufacturer; and

The Aggrawal/Deaton/Granger combination renders obvious [2a]. Ex-1003, ¶¶205-06. Aggrawal discloses sending the summary of coupons redeemed to a manufacturer. (*transmitting the coupon audit report to a manufacturer*). Ex-1004, 13:19-21; *see also id.* at 5:53-55.

3) [2b]: in response to receiving approval for at least a portion of the coupon audit report, debiting a bank account assigned to the manufacturer based on the portion of the coupon audit report that was approved and crediting a bank account assigned to the retailer based on the portion of the coupon audit report that was approved.

The Aggrawal/Deaton/Granger combination renders obvious [2b]. Ex-1003, ¶¶207-15. Aggrawal discloses that the manufacturer checks the transactions (*in response to receiving approval for at least a portion of the coupon audit report*) and credits money to “money to the retailer either directly or through some intermediary.” Ex-1004, 5:55-58. However, Aggrawal does not provide details about how money is credited to the retailer. The combination of Aggrawal and Deaton in

view of Granger teaches [2b] because Granger explains how a coupon processing center can bill a manufacturer and credit a retailer (***debiting a bank account assigned to the manufacturer based on the portion of the coupon audit report that was approved and crediting a bank account assigned to the retailer based on the portion of the coupon audit report that was approved***). For example, Granger discloses that the coupon processing center “maintains a conventional accounts receivable system to process payments received from manufacturers and, as shown in FIGS. 6 and 7, an accounts payable system functions to process payment made to retailers.” Ex-1006, ¶[0036]. Granger also disclose that the coupon processing center “acts as a payment agent for both manufacturers and retailers, sending bills to manufacturers and forwarding payments to retailers.” Ex-1006, ¶[0036]. A POSITA would have understood that acting as a payment agent means that Granger’s coupon processing center collected payments from the manufacturer and sent payments to stores. Ex-1003, ¶¶210-11. A POSITA would have further understood that one way to collect payments is via a funds transfer from the manufacturer’s bank account. Ex-1003, ¶212. For example, Granger shows that an EFT payment can be made from the manufacturer to the coupon processing center. Ex-1006, Figure 5. A POSITA would have also understood that one way to send payments to a store is via a payment to the store’s bank account. Ex-1003, ¶¶213-215. For example, Granger

shows that an EFT payment can be made from the coupon processing center to the store. Ex-1006, Figure 7.

4) Claim 3: The method as in claim 2, wherein the ICN server provides the coupon audit report to the manufacturer in real time.

The Aggrawal/Deaton/Granger combination renders obvious [3]. Ex-1003, ¶¶216-19. As explained in [2b], Aggrawal discloses providing the coupon audit report to the manufacturer. Aggrawal does not specify how often the coupon audit report is provided to the manufacturer. A POSITA would have recognized that the clearing house could provide coupon audit report to the manufacturer in a real time **(the ICN server provides the coupon audit report to the manufacturer in real time)**. Aggrawal discloses that that the store can provide coupon information to the clearing house immediately (e.g., in real time). Ex-1004, 13:16-18 (“The retailer 104 now can send this coupon, along with transaction identifications, to the clearing house 105 for clearing, either immediately or later on, after periodic intervals (message 8).”). Aggrawal does not specify the frequency at which the clearing house does the “clearing.” A POSITA would have understood that similar to the frequency of coupon information sent from the stores to the clearing house, the clearing house could similarly provide information to the manufacturer at the same range of frequency (e.g., immediately or later on). Ex-1003, ¶¶217-18. A POSITA would

have understood that providing the coupon audit report to the manufacturer immediately is the claimed “real time.” Ex-1003, ¶219.

5) Claim 4: The method as in claim 2, where the coupon audit report provides detailed and summary information by individual store and date.

The Aggrawal/Deaton/Granger combination renders obvious [4]. Ex-1003, ¶¶220-22. Aggrawal discloses that the clearing house can provide a summary of the coupons redeemed. *See supra* [2pre]. However, Aggrawal does not provide detail about the contents of the report. The combination of Aggrawal and Deaton in view of Granger teaches [4] because Granger explains how the report can provide (*the coupon audit report*) information by store and day (*detailed and summary information by individual store and date*). For example, Granger discloses that the coupon processing computer “create[es] a summary bill by manufacturer, chain, store, and day, with accumulations by coupon and offer code on the coupon” and “creates detailed reports pertaining to the coupons redeemed for each manufacturer.” Ex-1006, ¶[0035].

6) [12pre]: The ICN server as in claim 10, where the memory and the computer program code are further configured to cause the ICN server: to generate a coupon audit report based on the redeemed coupon database;

The Aggrawal/Deaton/Granger combination renders obvious [12pre]. *See supra* [2pre]; Ex-1003, ¶¶223-25. A POSITA would have understood that

Aggrawal's disclosure that the "clearing house can provide a summary of the coupons redeemed" to mean that the clearing house had memory and computer program code to generate that report (*memory and the computer program*). Ex-1003, ¶224.

- 7) [12a]: to transmit the coupon audit report to a manufacturer; and

See supra [2a]; Ex-1003, ¶226.

- 8) [12b]: in response to receiving approval for at least a portion of the coupon audit report, to debit a bank account assigned to the manufacturer based on the portion of the coupon audit report that was approved and to credit a bank account assigned to the retailer based on the portion of the coupon audit report that was approved.

See supra [2b]; Ex-1003, ¶227.

- 9) Claim 13: The ICN server as in claim 12, where the coupon audit report provides detailed and summary information by individual store and date.

See supra [4]; Ex-1003, ¶228.

- 10) [17pre]: The computer readable medium as in claim 16, where the actions further comprise: generating a coupon audit report based on the redeemed coupon database;

See supra [2pre]; Ex-1003, ¶229.

- 11) [17a]: transmitting the coupon audit report to a manufacturer; and

See supra [2a]; Ex-1003, ¶230.

- 12) [17b]: in response to receiving approval for at least a portion of the coupon audit report, debiting a bank account assigned to the manufacturer based on the portion of the coupon audit report that was approved and crediting a bank account assigned to the retailer based on the portion of the coupon audit report that was approved.

See supra [2b]; Ex-1003, ¶231.

- 13) Claim 18: The computer readable medium as in claim 17, where the coupon audit report provides detailed and summary information by individual store and date.

See supra [4]; Ex-1003, ¶232.

C. Ground 3: Aggravation in View of Deaton and Fajkowski Renders Obvious Claims 7, 8, and 11

1. Overview of Ground

a) Summary of Fajkowski

Fajkowski discloses “a system for the electronic management and redemption of coupons.” Ex-1007, Abstract; Ex-1003, ¶¶88-93. 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.

b) Motivation to Combine

Aggrawal/Deaton contemplates that a central server generates a report. A POSITA seeking to implement a coupon redemption and validation as taught by Aggrawal/Deaton would have looked to available couponing systems to determine what kinds of reports could be generated. Ex-1003, ¶234.

A POSITA would have looked to Fajkowski, which discloses generating reports of information from a central server to a retailer. Ex-1003, ¶235. Fajkowski teaches that a report may contain information and details about redemptions and misredemptions. *See infra* [7]-[8].

As combined, Aggrawal/Deaton/Fajkowski would have provided a coupon redemption and validation system that would have allowed a central server to provide a summary report about redeemed and misredeemed coupons that contained useful information to a retail store. Ex-1003, ¶236. A POSITA would have been motivated to implement this configuration in Aggrawal/Deaton because Aggrawal/Deaton describes providing a report. Ex-1003, ¶236.

A POSITA would have also understood that including Fajkowski’s functionality in Aggrawal would have enhanced Aggrawal/Deaton. Ex-1003, ¶237. A POSITA would have known that providing a report with useful information would

have provided numerous advantages. Ex-1003, ¶238. For example, sending this information to a retailer would provide the retailer about which transactions had successful redemptions and which transactions had erroneous redemptions. Ex-1003, ¶238. A POSITA would have understood that this would have been valuable information for retailers as misredemptions could cost retailers money. Ex-1003, ¶238.

In addition, both Aggrawal/Deaton and Fajkowski teach coupon system with numerous similarities, including having a server remote from the point-of-sale. Ex-1003, ¶239. As a result, including Fajkowski's functionality in Aggrawal/Deaton would have used known methods to improve Aggrawal/Deaton's couponing system. Ex-1003, ¶239.

A POSITA would have reasonably been expected to succeed in combining the teachings of Aggrawal/Deaton and Fajkowski. Ex-1003, ¶240. Implementation of Fajkowski's functionality would have required only routine knowledge because Aggrawal/Deaton already contemplated providing reports. Ex-1003, ¶240. Such a combination would have been straightforward, requiring only a minor modification. Ex-1003, ¶240. Thus, a POSITA would have a reasonable expectation of success.

2. Detailed Analysis of Ground 3

- 1) Claim 7: The method as in claim 1, further comprising transmitting a redemption confirmation acknowledgement indicating that the redeemed**

coupon related information was received and whether the redemption of the coupon was valid.

The Aggrawal/Deaton/Fajkowski combination renders obvious [7]. Ex-1003, ¶¶241-45. Fajkowski discloses that the server can receive information about redeemed coupons and then generate a report sent to a retail store indicating whether the redemption was valid or not (*transmitting a redemption confirmation acknowledgement indicating that the redeemed coupon related information was received and whether the redemption of the coupon was valid*). For example, Fajkowski discloses that the server receives “redeemed coupon data.” Ex-1007, 22:20-23. Fajkowski further discloses the server can generate a report based on the redeemed coupon data. Ex-1007, 22:31-35. A POSITA would have understood that that the detailed information would have included information about validly redeemed coupons. Ex-1003, ¶¶243-44. A POSITA would have understood that transmitting an acknowledgement that data was received is a standard part of networking communication protocol. Ex-1003, ¶245.

Thus, the combination of Aggrawal, Deaton, and Fajkowski renders obvious this element.

- 2) **Claim 8: The method as in claim 1, further comprising, in response to determining that the redemption of the coupon was invalid, transmitting a redemption confirmation acknowledgement indicating that the redeemed coupon related information was received,**

that the redemption of the coupon was invalid and a reason why the redemption of the coupon was invalid.

The Aggrawal/Deaton/Fajkowski combination renders obvious [8]. Ex-1003, ¶¶246-50. Fajkowski discloses that the server can receive information about redeemed coupons and then generate a report sent to the retail store indicating whether the redemption was valid or not (*transmitting a redemption confirmation acknowledgement indicating that the redeemed coupon related information was received, that the redemption of the coupon was invalid*) and if invalid, providing detailed information about the misredemption (*and a reason why the redemption of the coupon was invalid*). For example, Fajkowski discloses that the server receives “redeemed coupon data.” Ex-1007, 22:20-23. Fajkowski further discloses the server can generate a report based on the redeemed coupon data, including a report containing “detailed information on overrides and misredemptions.” Ex-1007, 22:31-35. A POSITA would have understood that that the detail information about overrides and misredemptions would have included information about why the redemption was a misredemption. Ex-1003, ¶¶248-49; *see also* Ex-1007, 22:35-48. A POSITA would have understood that transmitting an acknowledgement that data was received is a standard part of networking communication protocol. Ex-1003, ¶250.

Thus, the combination of Aggrawal, Deaton, and Fajkowski teaches this element.

- 3) **Claim 11: The ICN server as in claim 10, where the memory and the computer program code are further configured to cause the apparatus to transmit a redemption confirmation acknowledgement indicating that the redeemed coupon related information was received and whether the redemption of the coupon was valid.**

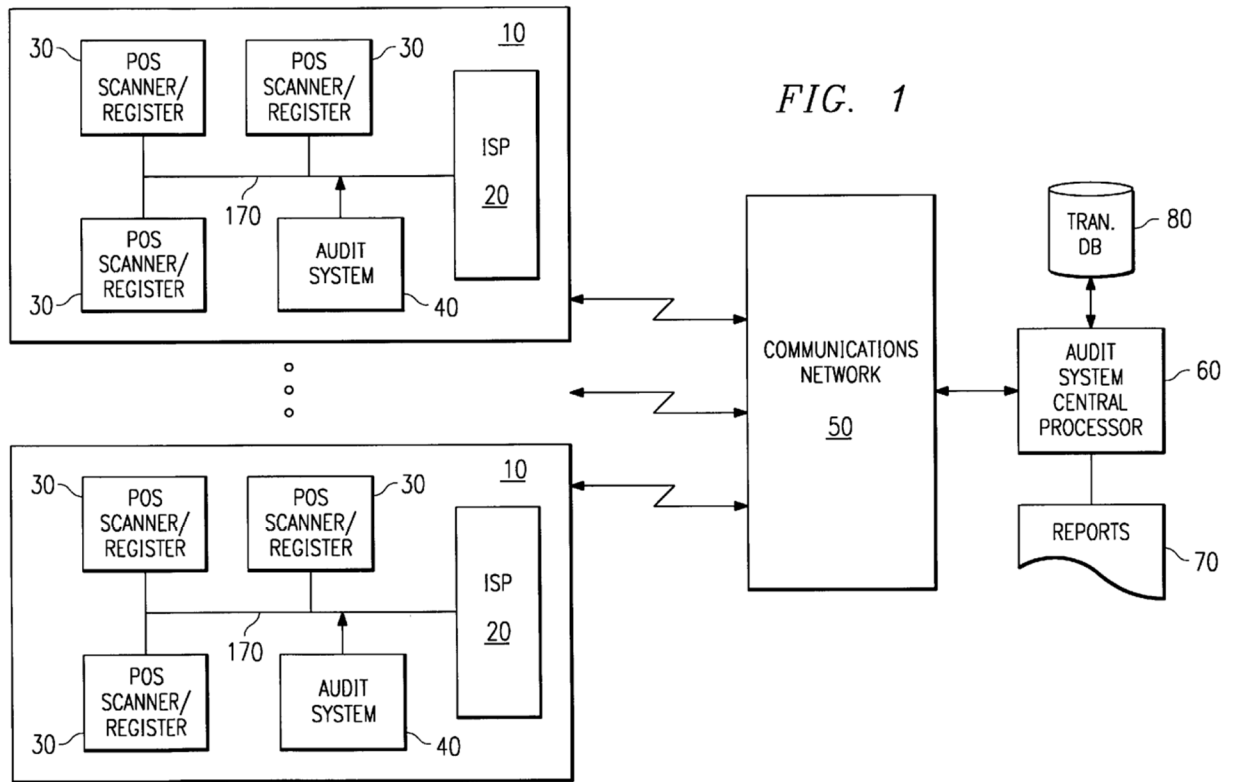
The Aggrawal/Deaton/Fajkowski combination renders obvious [11]. *See supra* [7]; Ex-1003, ¶¶251-53. A POSITA would have understood that Aggrawal’s disclosure that the “clearing house can provide a summary of the coupons redeemed” to mean that the clearing house had memory and computer program code to generate that report (*memory and the computer program*). Ex-1003, ¶¶252.

D. Ground 4: Aggrawal in View of Deaton and Jones Renders Obvious Claims 9, 15, and 20

1. Overview of Ground

a) Summary of Jones

Jones describes “[a]n automated system and method for electronically auditing point-of-sale transactions.” Ex-1007, Abstract; Ex-1003, ¶¶94-99. Figure 1 shows a “an electronic audit system and method for a point-of-sale system.” Ex-1007, 5:7-10.



In Jones, each retail store 10 has an in-store audit system 40 that collects, processes, and stores retail sales transaction data. Ex-1007, 5:36-42. Periodically, audit system 40 transmits the transaction data to audit system central processor 60 for further processing and use by manufacturers and retailers. Ex-1007, 5:47-51. Audit system central processor can analyze the data and prepare reports, such as a daily cashier shift report, daily audit, summary of coupon redeemed with statistically high exceptions flagged, and “[c]omparison of flagged stores with cashier habits, extremely high coupon activity, extremely fast total transaction times (sometimes

indicative of fraudulent misredemptions), non-normal variations in UPC distributions, and high frequency of manual overrides.” Ex-1007, 10:31-58.

b) Motivation to Combine

Aggrawal/Deaton contemplates that various kinds of frauds exist and are a problem in couponing. Ex-1004, 1:41-55. A POSITA seeking to implement a coupon redemption and validation as taught by Aggrawal/Deaton would have looked to available couponing systems to find ways to better combat fraud. Ex-1003, ¶¶255-56.

A POSITA would have looked to Jones, which discloses another way to combat fraud by looking irregular coupon activity or transaction times. Ex-1003, ¶256; *See infra* [9].

As combined, Aggrawal/Deaton/Jones would have provided a coupon redemption and validation system that would provide another technique to combat fraud. Ex-1003, ¶257. A POSITA would have been motivated to implement this configuration in Aggrawal/Deaton because Aggrawal/Deaton describes fraud as a problem in couponing. Ex-1003, ¶257.

A POSITA would have also understood that including Jones’s functionality in Aggrawal would have enhanced Aggrawal/Deaton. Ex-1003, ¶258. A POSITA would have known that providing additional ways to detect fraud would have provided numerous advantages. Ex-1003, ¶¶259. For example, a POSITA would

have been aware that coupon fraud was a concern and that manufacturers would desire ways to combat fraud. Ex-1003, ¶¶259.

In addition, both Aggrawal/Deaton and Jones teach coupon system with numerous similarities, including having a remote server that receives information from a point-of-sale. Ex-1003, ¶260. As a result, including Jones's functionality in Aggrawal/Deaton would have used known methods to improve Aggrawal/Deaton's couponing system. Ex-1003, ¶260.

A POSITA would have reasonably been expected to succeed in combining the teachings of Aggrawal/Deaton and Jones. Ex-1003, ¶261. Implementation of Jones's functionality would have required only routine knowledge because Aggrawal/Deaton already contemplated having a central server that communicates with the point-of-sales. Ex-1003, ¶261. Such a combination would have been straightforward, requiring only a minor modification. Ex-1003, ¶261. Thus, a POSITA would have a reasonable expectation of success.

2. Detailed Analysis of Ground 4

- 1) Claim 9: The method as in claim 1, further comprising: monitoring volume and traffic of redeemed coupons; and identifying abnormalities indicative of attempted fraudulent coupon redemption based on the monitored volume and traffic.**

The Aggrawal/Deaton/Jones combination renders obvious [9]. Ex-1003, ¶¶262-64. Jones discloses, or at least renders obvious, reviewing (*monitoring*)

coupon activity and transaction times (*volume and traffic of redeemed coupons*) to determine non-normal variations (*identifying abnormalities indicative of attempted fraudulent coupon redemption based on the monitored volume and traffic*). For example, Jones discloses that “[o]ther examples of some of the reports 70 available from the present invention include, and not by way of limitation . . . [c]omparison of flagged stores with cashier habits, extremely high coupon activity, extremely fast total transaction times (sometimes indicative of fraudulent misredemptions), non-normal variations in UPC distributions, and high frequency of manual overrides.” Ex-1008, 10:31-57. Jones further discloses that its audit system can generate a “a potential discrepancy report 70 for both headquarters and manufacturers’ agents including, but not limited to: unusual coupon activity.” Ex-1008, 10:57-63.

- 2) **Claim 15: The ICN server as in claim 10, where the memory and the computer program code are further configured to cause the apparatus: to monitor volume and traffic of redeemed coupons; and to identify abnormalities indicative of attempted fraudulent coupon redemption based on the monitored volume and traffic.**

The Aggrawal/Deaton/Jones combination renders obvious [15]. *See supra* [9]; Ex-1003, ¶¶265-67. A POSITA would have understood that Aggrawal’s disclosure that the “clearing house can provide a summary of the coupons redeemed” to mean that the clearing house had memory and computer program code to generate that report (*memory and the computer program*). Ex-1003, ¶266.

- 3) **[20pre]: The computer readable medium, as in claim 16, where the actions further comprise: monitoring volume and traffic of redeemed coupons; and**

See supra [9]; Ex-1003, ¶268.

- 4) **[20a]: identifying abnormalities indicative of attempted fraudulent coupon redemption based on the monitored volume and traffic.**

See supra [9]; Ex-1003, ¶269.

V. ENABLEMENT AND SECONDARY CONSIDERATIONS

The prior art references relied upon in this petition are all enabled and there are also no secondary considerations of non-obviousness tied to the Challenged Claims. Ex-1003, ¶¶270-72.

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 '729 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-1012, 10–11. The average time to trial for the Delaware district court is 32.9 months. Ex-1013, 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-1012, 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-1012. And in the Complaint, only one claim from the '729 patent was identified. Ex-1011, ¶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. *Bruker 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 ’729 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). Petitioner acknowledges that a different Fajkowski, although with overlapping disclosure, was “previously presented to the Office.” However, none of Aggrawal, Deaton, Granger,

or Jones were before the Office during prosecution of the '729 patent. Therefore, under the first prong, neither substantially the same art nor substantially the arguments were presented to the Office. *Thorne Research, Inc. v. Trustees of Dartmouth College*, IPR2021-00491, Paper 18 at 7-9 (PTAB Aug. 12, 2021). Under the second prong, even with the overlap between Fajkowski disclosures, the Office “erred in a manner material to the patentability of challenged claims.” *Advanced Bionics*, Paper 6 at 8, 10. The Office did not substantively consider the teachings of Fajkowski presented here with the teachings of Aggrawal and Deaton. Thus, Fajkowski was not “extensively evaluated for the same purposes” as Petitioner relies upon Fajkowski in this Petition. *Continental Automotive Systems, Inc. v. Horizon Global Americas Inc.*, IPR2021-00322, Paper 7, 19 (PTAB May 28, 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,

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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 12,161 words, according to the word count tool in Microsoft Word.

DATED: September 6, 2024

By: /Brian M. Buroker/

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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 '729 patent:

27975 - ADD+G – 27975
Attn: Christopher Regan
1135 East State Road 434, Suite 3001
Winter Springs, FL 32708
UNITED STATES

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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For Exclusive Licensee: BDIP_Inmar_ICN@bdiplaw.com

DATED: September 6, 2024

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APPENDIX: CHALLENGED CLAIM LISTING

No.	Limitation
1pre	A method comprising:
1a	receiving, at an ICN server from a retail server, first coupon or incentive information including universal product code information of an item to be purchased at a retail business, the first coupon or incentive related information having been input to a terminal in the retail business and transmitted from the terminal to the retail server, the ICN server being at a location that is remote from the retail business;
1b	validating, at the ICN server, 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;
1c	in response to validating the first coupon or incentive related information, transmitting from the ICN server to the retail server, coupon or incentive codes triggered by the validation of the first coupon or incentive related information;
1d	receiving, at the ICN server from the retail server, redeemed coupon related information indicating successful redemption of a coupon, wherein the redeemed coupon related information comprises identification information from a product purchased, customer identification information, an application identifier, and retailer identification information;
1e	in response to receiving the redeemed coupon related information, determining whether the redemption of the coupon was valid based on the redeemed coupon related information; and
1f	storing, by the ICN server, the redeemed coupon related information in a redeemed coupon database, where the redeemed coupon database comprises a plurality of redeemed coupon related information received from a plurality of retailer servers.
2pre	The method as in claim 1, further comprising: generating a coupon audit report based on the redeemed coupon database;
2a	transmitting the coupon audit report to a manufacturer; and

No.	Limitation
2b	in response to receiving approval for at least a portion of the coupon audit report, debiting a bank account assigned to the manufacturer based on the portion of the coupon audit report that was approved and crediting a bank account assigned to the retailer based on the portion of the coupon audit report that was approved.
3	The method as in claim 2, wherein the ICN server provides the coupon audit report to the manufacturer in real time.
4	The method as in claim 2, where the coupon audit report provides detailed and summary information by individual store and date.
5	The method as in claim 1, wherein the redeemed coupon related information comprises information regarding a consumer's transaction including at least one of: date, time, store, lane, total dollar amount spent, customer ID and universal product codes.
6	The method as in claim 1, where the ICN server is configured to communicate with a plurality of retail servers.
7	The method as in claim 1, further comprising transmitting a redemption confirmation acknowledgement indicating that the redeemed coupon related information was received and whether the redemption of the coupon was valid.
8	The method as in claim 1, further comprising, in response to determining that the redemption of the coupon was invalid, transmitting a redemption confirmation acknowledgement indicating that the redeemed coupon related information was received, that the redemption of the coupon was invalid and a reason why the redemption of the coupon was invalid.
9	The method as in claim 1, further comprising: monitoring volume and traffic of redeemed coupons; and identifying abnormalities indicative of attempted fraudulent coupon redemption based on the monitored volume and traffic.
10pre	An ICN server comprising a processor; and a memory including computer program code, the memory and the computer program code configured to, with the processor, cause the ICN server to perform at least the following:

No.	Limitation
10a	to receive, at an ICN server, first coupon or incentive information including universal product code information of an item to be purchased at a retail business, the first coupon or incentive related information having been input to a terminal in the retail business, the ICN server being at a location that is remote from the retail business;
10b	to validate, at the ICN server, 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;
10c	to transmit from the ICN server, in response to validation of the first coupon or incentive related information, coupon or incentive codes triggered by the validation of the first coupon or incentive related information, the coupon or incentive codes triggered being useable by the terminal to redeem the first coupon or incentive information;
10d	to receive, at the ICN server from a retail server located in a retail business located at a first location, redeemed coupon related information indicating successful redemption of a coupon, wherein the redeemed coupon related information comprises identification information from a product purchased, customer identification information, an application identifier, and retailer identification information and where the ICN server is at a second location that is remote from the first location; in response to receiving the redeemed coupon related information, to determine whether the redemption of the coupon was valid based on the redeemed coupon related information; and
10f	to store, by the ICN server, the redeemed coupon related information in a redeemed coupon database, where the redeemed coupon database comprises a plurality of redeemed coupon related information received from a plurality of retailer servers.
11	The ICN server as in claim 10, where the memory and the computer program code are further configured to cause the apparatus to transmit a redemption confirmation acknowledgement indicating that the redeemed coupon related information was received and whether the redemption of the coupon was valid.

No.	Limitation
12pre	The ICN server as in claim 10, where the memory and the computer program code are further configured to cause the ICN server: to generate a coupon audit report based on the redeemed coupon database;
12a	to transmit the coupon audit report to a manufacturer; and
12b	in response to receiving approval for at least a portion of the coupon audit report, to debit a bank account assigned to the manufacturer based on the portion of the coupon audit report that was approved and to credit a bank account assigned to the retailer based on the portion of the coupon audit report that was approved.
13	The ICN server as in claim 12, where the coupon audit report provides detailed and summary information by individual store and date.
14	The ICN server as in claim 10, wherein the redeemed coupon related information comprises information regarding a consumer's transaction including at least one of: date, time, store, lane, total dollar amount spent, customer ID and universal product codes.
15	The ICN server as in claim 10, where the memory and the computer program code are further configured to cause the apparatus: to monitor volume and traffic of redeemed coupons; and to identify abnormalities indicative of attempted fraudulent coupon redemption based on the monitored volume and traffic.
16pre	A computer readable medium tangibly encoded with a computer program executable by a processor to perform actions comprising:
16a	receiving, at an ICN server, first coupon or incentive information including universal product code information of an item to be purchased at a retail business, the first coupon or incentive related information having been input to a terminal in the retail business, the ICN server being at a location that is remote from the retail business;
16b	validating, at the ICN server, 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;

No.	Limitation
16c	in response to validating the first coupon or incentive related information, transmitting from the ICN server, coupon or incentive codes triggered by the validation of the first coupon or incentive related information, the coupon or incentive codes triggered being useable by the terminal to redeem the first coupon or incentive information;
16d	receiving, at the ICN server from a retail server in a retail business located at a first location, redeemed coupon related information indicating successful redemption of a coupon, wherein the redeemed coupon related information comprises identification information from a product purchased, customer identification information, an application identifier, and retailer identification information and where the ICN server is at a second location that is remote from the first location;
16e	in response to receiving the redeemed coupon related information, determining whether the redemption of the coupon was valid based on the redeemed coupon related information; and
16f	storing, by the ICN server, the redeemed coupon related information in a redeemed coupon database, where the redeemed coupon database comprises a plurality of redeemed coupon related information received from a plurality of retailer servers.
17pre	The computer readable medium as in claim 16, where the actions further comprise: generating a coupon audit report based on the redeemed coupon database;
17a	generating a coupon audit report based on the redeemed coupon database;
17b	transmitting the coupon audit report to a manufacturer; and
17c	in response to receiving approval for at least a portion of the coupon audit report, debiting a bank account assigned to the manufacturer based on the portion of the coupon audit report that was approved and crediting a bank account assigned to the retailer based on the portion of the coupon audit report that was approved.

No.	Limitation
18	The computer readable medium as in claim 17, where the coupon audit report provides detailed and summary information by individual store and date.
19	The computer readable medium as in claim 16, wherein the redeemed coupon related information comprises information regarding a consumer's transaction including at least one of date, time, store, lane, total dollar amount spent, customer ID and universal product codes.
20pre	The computer readable medium, as in claim 16, where the actions further comprise: monitoring volume and traffic of redeemed coupons; and
20a	identifying abnormalities indicative of attempted fraudulent coupon redemption based on the monitored volume and traffic.