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 IPR2024-01323
U.S. Patent No. 9,070,133

PATENT OWNER'S PRELIMINARY RESPONSE

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PATENT OWNER'S EXHIBIT LIST

Exhibit No.	Description
2001	Joint Claim Construction Chart in *Inmar Brand Solutions, Inc. v. Quotient Technology Inc.*, Case No. 1:23-cv-00994 (D. Del.)

Pursuant to 37 C.F.R. § 42.107, Exclusive Licensee Inmar Brand Solutions, Inc. ("Inmar" or "Patent Owner") files this preliminary response, setting forth reasons why the Petition for *inter partes* review ("IPR") of claims 1-35 of U.S. Patent No. 9,070,133 (the "'133 Patent"), as requested by Quotient Technology, LLC ("Quotient" or "Petitioner"), should be denied.[1]

I. INTRODUCTION

The '133 Patent "relates to the distribution and electronic processing of coupons and, in particular, to a network based system and method for validating and redeeming coupons." '133 Pat., 1:5-7. In the '133 patent, a coupon processing server validates coupon(s) stored in an account associated with a unique account number, such as a customer account, and transmits an indication including the valid coupon(s) to a point-of-sale (POS) location over a network. There, the point-of-sale location can redeem the valid coupons and send an indication of redeemed coupon(s) to the coupon processing server.

The Petition presents two Grounds against the challenged claims. In Ground 1, Petitioner asserts that the Paul reference renders the claims the '855 Patent obvious. But Paul neither discloses nor suggests every feature in the claims of the'133 Patent. In particular, Paul does not determine whether any coupon stored

[1] By submitting this Preliminary Response, no waiver of any argument is intended by Patent Owner. Patent Owner will have a right to file a complete response to the Petition, should the Board institute *inter partes* review. 37 C.F.R. § 42.120(a).

in a customer account at the database server is valid prior to sending the coupon to a POS location. In particular, Petitioner fails to establish that Paul determines whether there are any valid coupons associated with the customer or the customer's account in response to accessing the customer's account. Rather, Paul retrieves all coupons stored in a customer's account at the database server and transmits all stored coupons to Paul's portable scanner system (PSS) at a store. Only later in a transaction does Paul obtain the terms and conditions of coupons to make a determination about the validity of the previously sent coupons. Based on the later-accessed terms and conditions, Paul validates only certain coupons after they have been retrieved and transmitted to the store, and in some cases, Paul may allow the system to redeem an invalid coupon, such as an expired coupon. Thus, as noted above, Paul does not determine whether there are any valid coupons saved in an account at a database server. For at least this reason, Petitioner's challenge based on Paul alone must fail.

Petitioner attempts to cure the deficiencies of Paul by modifying Paul in view of a POSITA's knowledge in Ground 1, and in view of the teachings of the Brown reference in Ground 2. But these obviousness-based theories are fatally flawed. Petitioner's expert does have the requisite skill in the art that the Petition asserts is necessary to make the proposed modifications and/or obvious determinations. Notably, Petitioner repeatedly contends that no additional

disclosure is necessary to render the claims obvious because a POSITA would be aware of "***design choices or inherent aspects to a coupon processing system***," or "***known issues in coupon processing (improper coupon redemptions and fraud***)." But its declarant, Dr. Mowry, has no such experience in the coupon processing industry or technology. Thus, his opinions on coupon industry, which are central to Petitioner's obviousness theories, are not based upon his experience or education. Absent credible expert testimony, Petitioner is left with no basis to modify Paul, whether in view of a POSITA's knowledge of the coupon industry or in view of Brown, aside from impermissible hindsight.

Moreover, Petitioner's proposed modification of Paul in view of Brown frustrates Paul's design. In particular, Paul expressly discloses that even expired coupons may be redeemed under some circumstances, and purposefully delays making premature decisions about stored coupon validity at the time of coupon retrieval. Ultimately, Paul and Brown disclose different processes to achieve different results, and Petitioner's proposed combination fails to account for those differences.

The Petition's two remaining grounds are not directed to the independent claims, and therefore the failures of Grounds 1 and 2 are fatal to the entire Petition.

II. THE '133 PATENT

The '133 Patent is titled, "Intelligent Coupon Network," and relates to the

"distribution and electronic processing of coupons and, in particular, to a network based system and method for validating and redeeming coupons." '133 Pat., 1:5-7. The '133 Patent "allows for automatic processing of coupons and provides linkage between a coupon card and coupon information stored in a centralized database." '133 Pat., 2:60-63. The '133 Patent "present[s] novel ways of bundling technologies, including existing technologies such as real time communications and large volume data processing facilities, into a functioning operational platform[.]" '133 Pat., 2:66-3:2.

Figure 1 depicts an exemplary coupon processing system:

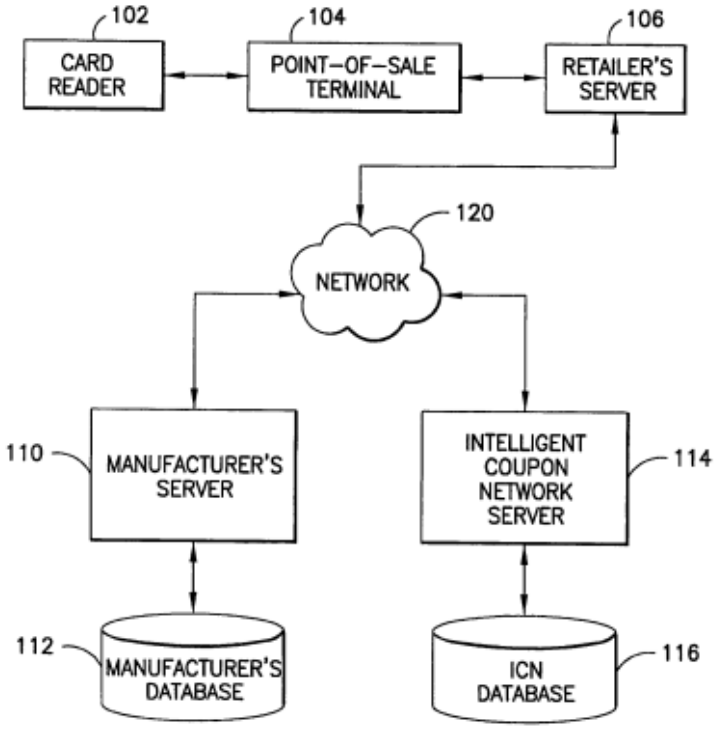

FIG. 1

'133 Pat., FIG. 1. As illustrated and described, the Intelligent Coupon Network Server 114 ("ICN server") is at a remote location from the POS terminal 104. '133 Pat., 3:6-34. ICN server 114 is linked to ICN Database 116 that maintains coupon information associated with coupon cards. '133 Pat., 3:31-45; 4:7-61.

During a purchase transaction, a unique account identifier, which may be associated with a customer account or a coupon card, is provided at a POS terminal 104. '133 Pat., 3:20-27. The POS terminal 104 sends the unique account identifier to ICN server 114 through retailer's server 106 and over the network 120. '133 Pat., 3:24-45; 4:15-61. ICN server 114 accesses the information associated with the unique account identifier in ICN database 116 and checks for any valid coupons saved that are associated with the unique account identifier. '133 Pat., 4:31-61. If there is at least one valid coupon associated with the unique account identifier, the ICN database 116 transmits an indication of the at least one valid coupon to POS terminal 104 via network 120. '133 Pat., 4:40-61. If the customer redeems a coupon, POS terminal 104 notifies ICN server 114, and the customer's account in ICN database 116 is updated to reflect that the coupon was redeemed. '133 Pat., 3:37-45; 8:50-62. In an embodiment, POS terminal 104 can also send purchase transaction information, such as the product purchased, the time of purchase, and the location of purchase. '133 Pat., 7:10-33. Thereby, ICN server 114 can monitor the volume and traffic

of redeemed coupons to identify abnormalities or fraud. '133 Pat., 10:53-61. In an exemplary embodiment, ICN server 114 can also notify a manufacturer associated with the redeemed coupon of the redemption and provide purchase transaction information. '133 Pat., 3:45-60.

Consistent with the '133 Patent's disclosure, independent claim 1 recites:

> 1. A computer-readable medium storing instructions executable by a processor to perform operations for processing coupons across a network, the operations comprising:
>
> receiving, at a coupon processing server, a unique account identifier from a first point of sale terminal via a network, where the coupon processing server is configured to communicate with a plurality of point of sale terminals, where the unique account identifier was scanned at the first point-of-sale terminal which is located at a retail store and where the coupon processing server is at a location that is remote from the retail store;
>
> ***in response to receiving the unique account identifier, determining whether at least one valid coupon is associated with the unique account identifier in a database of accounts***;
>
> in response to determining that at least one valid coupon is associated with the unique account identifier in the database of accounts, transmitting, from the coupon processing server, an indication of the at least one valid coupon to the

first point of sale terminal via the network, wherein the indication includes the at least one valid coupon;

in response to receiving, at the coupon processing server from the first point of sale terminal, an indication of at least one redeemed coupon, updating the database of accounts and transmitting, from the coupon processing server to a manufacturer associated with the at least one redeemed coupon, an indication that the at least one redeemed coupon was redeemed against a purchased transaction,

where the at least one redeemed coupon is at least one of the at least one valid coupon.

'133 Patent, 11:57-12:22 (claim 1) (emphasis added).

Claim 11 recites:

11. A computer-readable medium storing instructions executable by a processor to perform operations for processing coupons across a network, the operations comprising:

scanning, at a point-of-sale terminal located at a retail store, a unique account identifier;

during a purchase transaction, transmitting, from the point of sale terminal, the unique account identifier to a coupon processing server via a network, where the coupon processing server is configured to communicate with a plurality of point of sale terminals and where the coupon processing server is at a location that is remote from the retail store;

in response to transmitting the unique account identifier, receiving, at the point of sale terminal, an indication of whether at least one valid coupon is associated with the unique account identifier from the coupon processing server via the network, where a valid coupon is a coupon that has been validated by the coupon processing server and the indication includes the at least one valid coupon;

in response to receiving the indication that the at least one valid coupon is associated with the unique account identifier, the point of sale terminal completing the purchase transaction by validation of the at least one valid coupon against the purchased transaction; and

in response to the purchase transaction comprising a redemption of at least one of the at least one valid coupon, transmitting, from the point of sale terminal to the coupon processing server, an indication of the at least one redeemed coupon.

'133 Patent, 13:10-38 (claim 11) (emphasis added).

Claim 17 recites:

17. An apparatus, comprising a processor and a memory storing software, the processor is configured to, when executing the software, cause the apparatus to perform operations, the operations comprising:

to receive a unique account identifier from a first point of sale terminal via a network, where the apparatus is configured to communicate with a plurality of point of sale terminals,

where the unique account identifier was scanned at the first point-of-sale terminal which is located at a retail store and where the apparatus is at a location that is remote from the retail store;

in response to receiving the unique account identifier, to determine whether at least one valid coupon is associated with the unique account identifier in a database of accounts;

in response to determining that at least one valid coupon is associated with the unique account identifier in the database of accounts, to transmit an indication of the at least one valid coupon to the first point of sale terminal via the network, wherein the indication includes the at least one valid coupon;

in response to receiving, from the first point of sale terminal, an indication of at least one redeemed coupon, to update the database of accounts and to transmit, to a manufacturer associated with the at least one redeemed coupon, an indication that the at least one redeemed coupon was redeemed against a purchased transaction,

where the at least one redeemed coupon is at least one of the at least one valid coupon.

'133 Patent, 13:62-14:23 (claim 17) (emphasis added).

Claim 25 recites:

25. An apparatus, comprising a processor and a memory storing software, the processor is configured to, when executing the

software, cause the apparatus to perform operations, the operations comprising:

to scan a unique account identifier;

during a purchase transaction, to transmit the unique account identifier to a coupon processing server via a network, where the coupon processing server is configured to communicate with a plurality of point of sale terminals, where the apparatus is located at a retail store and where the coupon processing server is at a location that is remote from the retail store;

in response to transmitting the unique account identifier, to receive an indication of whether at least one valid coupon is associated with the unique account identifier from the coupon processing server via the network, where a valid coupon is a coupon that has been validated by the coupon processing server and the indication includes the at least one valid coupon;

in response to receiving at least one valid coupon at the point of sale terminal as an indication that at least one valid coupon is associated with the unique account identifier from the coupon processing server via the network, to complete the purchase transaction using the at least one valid coupon against the purchase transaction; and

in response to the purchase transaction comprising a redemption of at least one of the at least one valid coupon, to transmit, to the coupon processing server, an indication of the at least one redeemed coupon.

'133 Patent, 14:64-15:25 (claim 25) (emphasis added).

Claim 30 recites:

> 30. An apparatus, comprising:
>
> an input interface configured for receiving a unique account identifier from a first point of sale terminal via a network, where the apparatus is configured to communicate with a plurality of point of sale terminals, where the unique account identifier was scanned at the first point-of-sale terminal which is located at a retail store and where the apparatus is at a location that is remote from the retail store;
>
> ***a processor configured for determining whether at least one valid coupon is associated with the unique account identifier in a database of accounts in response to receiving the unique account identifier***;
>
> an output interface configured for transmitting an indication of the at least one valid coupon to the first point of sale terminal via the network in response to determining that at least one valid coupon is associated with the unique account identifier in the database of accounts, wherein the indication includes the at least one valid coupon;
>
> a server configured for updating the database of accounts and an internet connection for transmitting, to a manufacturer associated with the at least one redeemed coupon, an indication that the at least one redeemed coupon was redeemed, in response to receiving, from the first point of

sale terminal, an indication of at least one redeemed coupon against a purchased transaction,

where the at least one redeemed coupon is at least one of the at least one valid coupon.

'133 Patent, 15:43-16:13 (claim 30) (emphasis added).

Claim 33 recites:

33. An apparatus, comprising:

a first input interface configured for scanning a unique account identifier;

an output interface configured for transmitting, during a purchase transaction, the unique account identifier to a coupon processing server via a network, where the coupon processing server is configured to communicate with a plurality of point of sale terminals, where the apparatus is located at a retail store and where the coupon processing server is at a location that is remote from the retail store;

a point of sale terminal configured for ***receiving an indication of whether at least one valid coupon is associated with the unique account identifier from the coupon processing server via the network in response to transmitting the unique account identifier, where a valid coupon is a coupon that has been validated by the coupon processing server*** and the indication includes the at least one valid coupon;

the point of sale terminal configured for completing the purchase transaction using the at least one valid coupon

against the purchase transaction in response to receiving the indication that at least one valid coupon is associated with the unique account identifier from the coupon processing server via the network; and

the output interface configured for transmitting, to the coupon processing server, an indication of the at least one redeemed coupon in response to the purchase transaction comprising a redemption of at least one of the at least one valid coupon.

'133 Patent, 16:22-51 (claim 33) (emphasis added). As will be discussed below, Petitioner relies upon its analysis of Element [1.5] from claim 1 to address each of the emphasized claim portions identified above. Because Petitioner's analysis of Element [1.5] fails under both Grounds, Petitioner cannot prevail against any independent claim.

III. THE BOARD NEED NOT REACH ANY CLAIM CONSTRUCTION ISSUES TO DENY THE PETITION

The Petitioner identifies no terms as requiring constructions in this IPR. Pet., 3-4 ("Petitioner submits that no construction is necessary for the Board to resolve"). In contrast, in the District Court, Petitioner has advanced numerous limiting constructions that are inconsistent with Petitioner's invalidity theories. As noted in Section IV.C below, Petitioner takes an expansive view of "valid" such that Petitioner interprets "valid" to be synonymous with "available." However, in District Court, Petitioner contends that a "valid" coupon requires a determination "whether the purchase requirements of the [coupon/incentive/etc.] have been met."

See Ex. 2001, Joint Claim Construction Chart, at 3-5. Nowhere in the Petition does Petitioner satisfy its narrow definition of "valid." Petitioner does not attempt to show that any claim is allegedly unpatentable under Petitioner's proposed claim constructions.

Without waiving its right to submit constructions in a Patent Owner Response, and consistent with the position Patent Owner has taken in the District Court, Patent Owner submits that the Board need not engage in any pre-institution claim construction because the Petition fails to establish invalidity of any challenged claim under the plain and ordinary meaning of each term. For the substantive reasons presented in Section IV below, Petitioner's grounds include fundamental flaws and fail to establish the disclosure of every claimed element in each independent claim. These findings do not require the Board to conduct any construction of the above-identified terms.

IV. PETITIONER'S CHALLENGES FAIL ON THE MERITS

Petitioner asserts four grounds in its Petition, but only two of those grounds, Grounds 1 and 2, apply to the independent claims (claims 1, 11, 17, 25, 30, and 33). Ground 1 contends that the independent claims, and all of the dependent claims,[2] are obvious over Paul[3] alone. Ground 2 contends that the independent

[2] Dependent claims 2-10, 12-16, 18-24, 26-29, 31, 32, 34, and 35.
[3] Ex. 1004, U.S. Patent Application Publication No. US 2004/0140361 ("Paul").

claims, and all of the dependent claims, are obvious over Paul in view of Brown[4]. For completeness, Grounds 3 and 4 are not used to shore up the deficiencies of the challenges against the independent claims in Grounds 1 and 2, and instead are asserted against dependent claims 7 and 22 as follows: Ground 3 contends dependent claims 7 and 22 are obvious in view of Paul and Jones[5]; and Ground 4 contends dependent claims 7 and 22 are obvious in view of Paul and Brown and further in view of Jones.

Section IV.A describes how Petitioner's proposed POSITA standard, and Dr. Mowry's declaration, fail to support Petitioner's theories of obviousness and factual assertions relied upon by Petitioner to modify Paul.

Section IV.B explains Paul's process of coupon redemption, and how this process does not make any determination about coupon validity or even obtain a coupon's rules of redemption until the conclusion of Paul's process.

Section IV.C addresses how Paul fails to disclose at least Element [1.5] of the '133 Patent.

Section IV.D addresses additional shortcomings of Petitioner's proposed obviousness theories directed to Paul.

[4] Ex. 1005, U.S. Patent Application Publication No. US 2006/0074784 ("Brown").
[5] Ex. 1006, U.S. Patent No. 5,832,458 ("Jones").

For all the reasons presented below, Grounds 1-2 are deficient in establishing the unpatentability of any challenged independent claim, and Grounds 3-4 do not remedy the deficiencies of Ground 1. Therefore, the Petition should be denied without institution.

A. Petitioner's Proposed POSITA Standard and Dr. Mowry's Qualifications Fail To Support the Petition's Challenges, Which Rely on Specialized Insight Into the Art of Coupon Processing Technology or Practices

The Petition reaches incorrect conclusions regarding obviousness of the challenged claims in part because Petitioner's factual allegations regarding the coupon processing art, upon which the Petition depends, are founded upon testimony from a person who has no experience in the coupon processing art.

Petitioner's proposed standard for a "Person of Ordinary Skill in the Art" (hereinafter, "POSITA") focuses purely on technical qualifications and experience. Petitioner defines the POSITA here as someone with knowledge 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." Pet., 10 (citing Mowry, ¶18). Petitioner asserts that a POSITA would have the following qualifications:

1. First, a POSITA "would have had an undergraduate degree in electrical engineering, computer science, computer engineering, or similar technical field." Pet., 10.

2. Second, a POSITA would have had "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." Pet., 10.
3. Relatedly, Petitioner notes that "additional education" could substitute "for less experience and vice versa." Pet., 10.

Notably for the purpose of this proceeding, nothing about this proposed standard informs how the alleged POSITA would have any understanding about coupon-processing business or technology. While a POSITA meeting this proposed standard could have the requisite education and experience to implement network technology solutions, a POSITA would not have the knowledge that the Petition itself claims is necessary to render the claims obvious, including whether such implementations made sense within the field of coupon processing art or would be desired or feasible within the context of this art. But such knowledge is critical to and a central part of the obviousness grounds in the Petition.

The Petition repeatedly contends that a POSITA would require a deep and specific understanding of various aspects of the business and technology of validating, redeeming, and clearing coupons to reach the proposed obviousness determinations. For example, in its section addressing the proposed motivations

for combining Paul and Brown, Petitioner states that the "only difference of any significance between Paul and Brown is that the coupons in Paul are issued by a manufacturer/retailer, while the coupons in Brown are issued as part of a government benefits program." Pet., 16 (citing Mowry, ¶81). Petitioner then states that a "POSITA would have viewed that difference as immaterial." Pet., 16-17 (citing the '133 patent, and Mowry, ¶81). Left unexplained is why a computer scientist or electrical engineer with experience in networking or database systems would have formulated any opinion about whether the source of a coupon—whether it is manufacturer/retailer-issued or whether it is government-issue—affects how that coupon must be processed, and whether the difference is truly "immaterial."

The Petition repeatedly touts Dr. Mowry as someone with insight into how a POSITA would understand coupon processing business practices and technologies in the coupon processing industry, when he has no such knowledge. On its face, the Petition's asserted basis for modifying Paul expressly depends upon numerous statements attributed to a POSITA having extensive knowledge coupon processing business practices and technologies, despite proffering no witness with this knowledge. These statements include, for example:

- "***Regardless of the source of the coupons,*** the systems work the same way and accomplish the same goal—allowing customers to purchase

products using coupons stored in their accounts at a centralized database." Pet., 17 (citing Mowry, ¶81).

- "A POSITA would have viewed [differences between Paul and Brown] ***as design choices or inherent aspects to a coupon processing system*** to operate as intended requiring no explicit disclosure." Pet., 17 (citing Mowry, ¶82).
- "These enhancements [to Paul or Brown] could relate to … its ability to address ***known issues in coupon processing (improper coupon redemptions and fraud***)." Pet., 17-18 (citing Mowry, ¶83).
- "A POSITA would have found it advantageous to update the database after a coupon is redeemed ***to prevent a customer from redeeming a coupon more than once***, and thus been motivated to use that aspect of Brown in the combined system. Also, ***updating a database upon receiving information about coupon redemption is inherently an aspect of coupon processing***, and a POSITA would have found it necessary for the system to operate as intended." Pet., 18 (citing Mowry, ¶83).
- "A POSITA would have found it advantageous to put the ***unique account identifiers on customer coupon cards*** that could be scanned using scanning equipment that was already at checkout in retail stores

(barcode readers/credit card swipe machines)." Pet., 19 (citing Mowry, ¶83).

- "A POSITA would have found it advantageous to only send valid coupons to reduce message sizes sent over the network to the point-of-sale termina[l] to conserve bandwidth. Also, it would reduce ***the processing required at the point-of-sale terminal, which is often a less sophisticated*** and slower device than a central server. Further, ***sending coupons that are invalid (expired, already redeemed, or otherwise) could lead to improper redemptions, which are expensive to manufacturers and retailers.*** Thus, a POSITA would have been motivated to implement this aspect of Brown in the combined system." Pet., 20 (citing Mowry, ¶83).

But Petitioner fails to establish how a person having only the education and training identified in its proposed POSITA definition would have understood these intricacies of the coupon-processing business and technology, which are critical to the obviousness Grounds presented in the Petition.

More importantly, Petitioner's declarant, Dr. Mowry, does not have the required experience and knowledge the Petition contends a POSITA must have. Dr. Mowry identifies no education or qualifications to render these opinions on coupon processing. Dr. Mowry candidly states, "I have over 30 years of

experience in the field of computer science, including distributed computing, networked computer systems, database management systems, and transaction processing. In light of the foregoing, ***I consider myself to be an expert in the field of computer science***." Mowry, ¶12 (emphasis added). What he fails to address is how this education and experience informs his conclusions regarding the coupon-processing industry. Dr. Mowry states only that he has "relied on [his] professional experience, knowledge, and skill in computer science, as well as [his] experience in distributed computing, networked computer systems, database management systems, and transaction processing in reaching the opinions expressed in [his] Declaration." Mowry, ¶1. Although the Petition establishes that knowledge regarding the coupon processing art is essential to each of the Grounds, Dr. Mowry's qualifications statement, and his Declaration in general, fail to state the basis for Dr. Mowry's understandings and opinions regarding how the coupon-processing industry and technology work.

Each instance that Dr. Mowry issues an "opinion" about the coupon-processing industry should be disregarded by the Board as unsupported and lacking foundation under 37 C.F.R. § 42.65(a). *See Avail Medsystems, Inc. v. Teladoc Health, Inc.*, IPR2022-00444, Paper 10 at 24-27 (PTAB July 21, 2022) (denying institution after giving "no weight" to testimony from the perspective of a skilled artisan where the expert's qualifications fell short). Such opinions "amount[] to

nothing more than advocacy from the witness stand." *See Sundance, Inc. v. DeMonte Fabricating Ltd.*, 550 F.3d 1356, 1362, 1364-65 (Fed. Cir. 2008); *see also Kyocera Senco Indus. Tools Inc. v. Int'l Trade Comm'n,* 22 F.4th 1369, 1375-79 (Fed. Cir. 2022) (finding ***abuse of discretion*** when ALJ relied on testimony from an expert with "advanced degrees in engineering and extensive experience in the design and manufacture of fastener driving tools" but who did not have experience in "power nailer design"). Because Dr. Mowry's opinions are critical to the Petition's challenges, the Petition should be denied institution on this basis alone.

B. Paul Does Not Make Any Determination About Coupon Validity Or Even Obtain Coupon Rules of Redemption Until the End of Paul's Process

Initially, Petitioner's contentions regarding Paul do not square with Paul's actual disclosures. Considered properly, Paul's disclosures regarding the steps of how Paul processes a coupon differ substantially from the processing steps recited in the challenged claims. These differences are most easily understood through a discussion of Paul's Figure 10, illustrating Paul's process of redeeming a coupon.

Paul describes Figure 10 as illustrating "an exemplary embodiment of the electronic coupon redemption process supported by the coupon system of FIG. 2." Paul, [0021]. Per Paul's Figure 10 and associated disclosure, Paul's "I/R software" of the portable scanner system (PSS) 200 "will first identify the registered

customer and access their customer files (blocks 500 & 515)." Paul, [0086]. Step 520 of Paul is then described as follows: "The I/R software will retrieve CBCs [coupon bar codes] saved in customer account within in-store server 240 or DBS [database server] 265 and transmit the barcodes to either DCM [data collection module] 220, POS terminal 235, in-store server 240 or central server 290 (block 520)." Paul, [0086]. As a primary distinction from the challenged claims, Paul does not disclose that the coupon bar codes, or CBCs, saved in Paul's customer account and retrieved in step 520 are "valid" CBCs. Thus, Paul does not determine whether there are any valid coupons associated with the customer or the customer's account in response to accessing the customer's account.

After the CBCs have been retrieved from the customer's account and transmitted to a POS terminal 235, and before Paul has determined whether any CBCs are valid, Paul determines whether any retrieved CBCs transmitted to the POS terminal 235 are relevant to a customer's intended purchases by comparing manufacturer codes on the CBCs with product bar codes (PBCs) of the intended purchases. Paul discloses that its I/R software uses the retrieved and transmitted CBCs at the POS terminal 235 to compare "the manufacturer codes within the PBC and CBC to find a match (block 530)." Paul, [0088]. "If there [are] no matching manufacturer codes, the I/R software will reject the coupon and prompt the check-out clerk to return rejected paper coupons to the customer." Paul, [0088]. At that

point, Paul's coupon redemption process would end without ever determining whether any retrieved CBCs are valid. On the other hand, if there are "matching manufacturer codes [between the retrieved coupon bar code and a product bar code], integration software will transmit the matched CBC to in-store server 240 or central server 290 (block 540)." Paul, [0089]. At this point in Paul's process, Paul still ***has not*** determined whether any of the successfully matched CBCs are valid.

Paul does not even begin any process of determining coupon validity until after the CBCs have been retrieved and transmitted to a POS terminal 235, compared with the PBCs in a customer's intended purchase, and matched with a manufacturer code. Only after that process is successfully completed, a matched CBC is transmitted to an in-store server 240 or central server 290 in block 540 to determine if there is a matching coupon in the coupon database (block 550), and if so, redemption software looks up the "detailed coupon definitions, rules of redemption, table of products applicable for that coupon, terms and conditions of coupon offer (block 555)." Paul, [0089]. "If there no matching coupon in coupon database, then redemption software will decode the CBC per standard barcode definitions … (block 560)" to decode the "rules of redemption." Paul, [0090]. This decoding process includes determining whether the CBC is expired. As Paul explains, this decoding process includes determining an expiration code, the manufacturer's ID, the value code, and any multiple purchase requirements. Paul,

[0105] ("the expiration code is used to verify the coupon has not yet expired, the manufacturer's ID is used to match product purchases to coupon, and the value code is used to provide a face value for the coupon and identify multiple purchase requirements.").

Paul then describes block 575 as follows: "If product purchases meet the terms and conditions of coupon offer, the I/R software will ***validate*** the coupon and transmit the validated CBC and/or appropriate credit to POS terminal 235 (block 575)." Paul, [0091] (emphasis added). Thus, Paul does not validate any coupon until block 575, and does not determine "whether at least one valid coupon is associated with the unique account identifier in a database of accounts," "in response to receiving the unique account identifier," as claimed.

Relevant to this IPR, Paul does not determine whether any coupon, or "CBCs saved in customer account" (Paul, [0086]) are valid in response to identifying a registered customer and accessing the registered customer's files in blocks 505 & 515. Indeed, Paul makes no determination about whether any CBCs saved in a customer account are valid unless and until Paul transmits CBCs from the customer account to the POS terminal 235, compares the retrieved CBCs with PBCs in a customer's intended purchase, finds a matched manufacturer code, transmits a matched CBC to an in-store server 240 or central server 290 in block 540 to determine if there is a matching coupon in the coupon database. At this

point, Paul either retrieves a matching coupon from coupon database to determine details of a coupon's terms and conditions, or otherwise decodes the CBC to determine the rules of redemption. As Paul states, "[b]ased on the coupon definition in the database, the coupon is verified to be in effect, not expired, and valid for the store and/or region." Paul, [0100].

Paul will not "validate" a coupon until block 575, and this does not occur in response to receiving a user's account or account identifier, but rather upon the condition that "product purchases meet the terms and conditions of coupon offer." Paul, [0091]. Indeed, according to Pauls' disclosure, Paul states that the intended product purchases must be known before a coupon is validated. Paul discloses that "[i]f the product purchases satisfy the redemption rules and meet the terms of coupon definitions, the I/R Software validates the coupon." Paul, [0102].

Moreover, Paul purposefully transmits expired/invalid CBCs to the POS terminal to add flexibility to Paul's system. Paul specifically discloses that a PSS 200 "has the ability to continue redeeming the coupon until the manufacturer reaches their target redemption limit of 300,000 coupons, even though the expiration date printed on the coupon has expired." Paul, [0101]. Therefore, Paul, by design and as an identified advantage, purposefully does not make an early determination of coupon validity while retrieving CBCs from a customer account

to build redemption flexibility into Paul's system, and to redeem an invalid (expired) coupon in certain cases.

C. Petitioner's Ground 1 Fails to Satisfy at Least Element 1.5

Paul alone fails to disclose or suggest every claim requirement of the challenged '133 Patent claims. Petitioner characterizes claim 1's step of "in response to receiving the unique account identifier, determining whether at least one valid coupon is associated with the unique account identifier in a database of accounts" as Element **[1.5]**. Pet., 80 (Appendix: Challenged Claim Listing). Petitioner alleges that "Paul discloses, or at least renders obvious, [1.5]." Pet., 29. As introduced above and explained below, this allegation is wrong, and Petitioner fails to identify any instance where Paul discloses or suggests any determination of "at least one valid coupon" "in response to receiving the unique account identifier" of a customer.

Petitioner initially focuses on certain disclosures in the '133 patent, including 9:16-17 and 6:29-33, without discussion how these disclosures allegedly relate to the claim language of Element [1.5]. Pet., 30. Noting again that Petitioner proposed no constructions for any claimed term, it is plainly improper for Petitioner to characterize or even insinuate that claimed features should be interpreted as identical to certain specification passages of the '133 Patent. In particular, Petitioner fails to explain why a POSITA would have interpreted a

"valid coupon," as claimed in Element [1.5], as "available," with no other requirements to be "valid."[6]

Petitioner tries to leverage a quotation from the '133 patent's specification into the primary basis for its challenge. Petitioner alleges that a "POSITSA would have understood that ***applicable*** coupons saved in a customer's account that are ***non-redeemed*** would be considered active and ***available (i.e., valid)*** as contemplated by the '133 patent and recited in this limitation." Pet., 31 (emphasis added and in original) (citing Mowry, ¶145).

But Petitioner fails to reconcile the fact that Paul itself discloses a separate process for determining whether a coupon is valid (*see, e.g.*, Paul, Figure 10, block 575), and this occurs well after—and not "in response to"—Paul's accessing a customer account to retrieve a CBC. Petitioner offers no reason why a POSITA would have viewed Paul's accessing of a customer account prior to block 575 as directed to retrieving ***valid*** coupons, given that Paul does not even determine the terms and conditions for those coupons—much less determine whether those terms and conditions are met—until much later in Paul's process. According to Paul's express disclosure, Paul's accessing of a customer account to retrieve stored

[6] In district court proceedings, Petitioner seeks to construe "validating / validated / validation / validate" as "[Determining / determined /determination of / determine] whether the purchase requirements of the [coupon/incentive/etc.] have been met." Ex. 2001, Joint Claim Construction Chart, at 3-5.

coupons does not disclose or suggest "determining whether at least one valid coupon is associated with the unique account identifier in a database of accounts," as recited in Element [1.5], because Paul makes no determination whether the stored CBCs are valid.

Paul's use of the term "applicable" does not modify this conclusion. Petitioner alleges that "[a]fter identifying the customer, software will access the customer's account to identify ***applicable*** coupons saved in their account within DBS 265." Pet., 30 (emphasis in original) (citing Paul, [0086]).[7] Paul does not disclose or suggest making any determination whether retrieved coupons from a customer's account are valid, expired, or even relevant to a customer's intended purchase. Paul only determines whether there are CBCs saved in the account. Paul's process for determining whether a coupon is applicable to a customer's intended purchases occurs at the POS terminal, after the coupon has been retrieved, and this process includes comparing the coupon's CBC with a product's PBC to determine whether there are matching codes. Paul, [0088], [0089]. Paul's software will "reject the coupon" if there are "no matching manufacturer codes." Paul, [0089]. This terminates Paul's process as shown in Figure 10, block 535. If

[7] Petitioner incorrectly cites to Paul's paragraph [0086] for this term, but [0086] does not use the term "applicable" and instead states that "I/R Software will retrieve CBCs saved in customer account" without disclosing or suggesting that those retrieved CBCs are "applicable."

this happens, no determination as to whether the coupon is valid will ever occur in Paul.

Still addressing Ground 1, Petitioner points to Paul's disclosure that the "POS system may receive validated CBCs from [] central server 290 for further processing." Pet., 31 (quoting Paul, [0059]). However, this disclosure in Paul says nothing about whether validated CBCs are received "in response to receiving the unique account identifier" as that feature appears in Element [1.5]. Rather, as Paul's detailed disclosure related to Figure 10 confirms, Paul does not validate a CBC until block 575, and not in response to receiving any customer identification.

Finally, Petitioner's conclusion as to Ground 1 and Element [1.5] improperly rewrites this claim element by changing "in response to" into "after." Pet., 31. Specifically, Petitioner contends:

> [A] POSITA would have understood that a coupon processing server (central server 290 and/or DBS 265) determines whether a valid coupon (applicable and non-redeemed) is associated with a unique ID number (unique account identifier) in customer files in central server 290 and/or DBS 265 (containing a database of accounts) ***after*** identifying a customer (receiving the unique account identifier) as recited in this limitation.

Pet., 31 (emphasis added). Petitioner's decision to eliminate the "in response to" language appearing in Element [1.5] and replacing it with "after" is a clear indicator of Petitioner's concession that Paul fails to disclose this claimed feature.

Instead of finding and explaining the causal relationship required by the "in response to" clause, Petitioner simply looks for whether one event occurs before another. This is insufficient to render claim 1 invalid in view of Ground 1.

For these reasons, the Petition fails with regard to Ground 1 and independent claim 1.

D. Petitioner's Obviousness-Based Challenges In Ground 1 and Ground 2 Also Fail to Satisfy at Least Element 1.5

As discussed in Section IV.C above, Petitioner's Ground 1 challenge based on Paul alone is deficient because Paul fails to disclose or suggest, at least, "in response to receiving the unique account identifier, determining whether at least one valid coupon is associated with the unique account identifier in a database of accounts." Petitioner's specific obviousness theories directed to remedying Pauls' failure to disclose Element [1.5] are wrong and fail to consider Paul's disclosures in full. Additionally, while Petitioner seeks to rely on a POSITA's knowledge and Brown to remedy these defects in Paul, Petitioner's analysis does not withstand scrutiny because its expert does not possess the knowledge and expertise in the relevant field, which the Petition makes clear is necessary for its obviousness theory. As fully explained in Section IV.A above, Dr. Mowry has no identified education or experience in the coupon processing field. As such, his declaration "amounts to nothing more than advocacy from the witness stand." *See Sundance,* 550 F.3d at 1364-65; *see also Kyocera,* 22 F.4th at 1369, 1375-79 (finding ***abuse***

of discretion when ALJ relied on testimony from an expert with "advanced degrees in engineering and extensive experience in the design and manufacture of fastener driving tools" but who did not have experience in "power nailer design").

The Petition's obviousness challenges rely on a POSITA's opinions regarding a field of art without establishing how a POSITA—including Dr. Mowry—would have had the knowledge and experience to reach those opinions. Absent any credible expert support on the relevant art, Petitioner's hindsight-based assertions in favor of modifying Paul, whether based on a POSITA's knowledge alone or in view of Brown, as set forth in the Petition should be rejected.

i. Petitioner's Proposed Motivation for Modifying Paul in Ground 1 Fails to Consider the Full Disclosure of Paul, and Frustrates Paul's Technical Solution

As discussed above, Paul alone fails to disclose or suggest at least Element [1.5]. Petitioner tacitly concedes this point, and states that "[t]o the extent that Paul does not explicitly disclose this limitation [1.5], it would have been obvious to check whether there is a valid coupon before sending any coupons to the point-of-sale terminal to avoid improper coupon redemptions, and it would have been easily implemented by a POSITA." Pet., 31. This logic fails, however, and represents nothing more than an improper hindsight-based recreation of the challenged claims.

Initially, Paul expressly discloses a process for validating a coupon within its redemption process, and even discloses techniques for redeeming coupons that have already expired but are still being accepted by a manufacturer due to other conditions of redemption. Therefore, Paul already discloses techniques "to avoid improper coupon redemptions." Petitioner offers no basis to conclude that checking "whether there is a valid coupon before sending any coupons to the point-of-sale terminal" would, in fact, avoid improper coupon redemptions, and Dr. Mowry has neither the education nor experience to render opinions on this coupon-processing factual issue.

Further, Petitioner's proposal represents a technical impossibility in Paul, since Paul accesses the information necessary for Paul to validate a coupon only after Paul retrieves CBCs from a customer account, transmits those CBCs to the POS terminal 235, compares the retrieved CBCs with PBCs in a customer's intended purchase, finds a matched manufacturer code, and transmits a matched CBC to an in-store server 240 or central server 290 to determine if there is a matching coupon in the coupon database. *See* Paul, Fig. 10 (block 555, "Look up coupon definitions, terms and conditions of coupon offer from coupon database"). Paul does not disclose storing information necessary to validate a coupon stored in the customer account such that only valid coupons would be retrieved in response to Paul identifying a registered customer and accessing the customer's files.

Moreover, Paul expressly discloses a reason for the disclosed step of validating a coupon at block 575, rather than earlier in the process. As noted above, Paul expressly discloses that a PSS 200 "has the ability to continue redeeming the coupon until the manufacturer reaches their target redemption limit of 300,000 coupons, even though the expiration date printed on the coupon has expired." Paul, [0101]. Petitioner fails to consider, much less reconcile, this disclosure and purpose of Paul in its proposed modification.

ii. Petitioner's Alleged Reasons to Modify Paul in view of Brown in Ground 2 are Unsupported and Fail to Consider Paul for All it Teaches

As noted in Section IV.A above, Petitioner relies upon Dr. Mowry's unreliable testimony regarding the coupon-processing industry and technology to support a combination of Paul and Brown in order to shore up Paul's failure to disclose at least Element [1.5]. Citing to Dr. Mowry's ¶83, Petitioner asserts:

> A POSITA would have found it advantageous to only send valid coupons to reduce message sizes sent over the network to the point-of-sale termina[l] to conserve bandwidth. Also, it would reduce the processing required at the point-of-sale terminal, ***which is often a less sophisticated and slower device than a central server***. Further, sending coupons that are invalid (expired, already redeemed, or otherwise) could lead to ***improper redemptions, which are expensive to manufacturers and retailers***. Thus, a POSITA would have been motivated to implement this aspect of Brown in the combined system.

Pet., 20 (citing Mowry, ¶83) (emphasis added). Thus, Petitioner contends that its proposed modification of Paul has the advantages of reducing message size and conserving bandwidth, reducing processing required at a POS terminal, and avoiding the redemption of invalid coupons. Each argument is wrong, is unsupported by reliable POSITA testimony, and represents a hindsight-based attempt to recreate the challenged claims. Each argument is addressed in turn.

First, Petitioner contends that sending only valid coupons would reduce message size and conserve bandwidth. Initially, it should be recognized that Petitioner fails to establish exactly what Brown sends to a point-of-sale terminal during a purchase transaction. In Petitioner's own characterization of Brown, Petitioner contends "the customers is ***informed of the valid coupon*** at POS terminal 102 and given the option to redeem the coupon on eligible products." Pet., 15 (emphasis added). Being "informed" of a virtual coupon does not establish that Brown's server transmits an "indication [that] includes the at least one valid coupon," as recited in each of the independent claims. If reducing bandwidth were such a concern in Brown, a POSITA following Brown's teachings would have no reason to transmit coupons to the point-of-sale terminal during a purchase transaction when only "information" about coupons would suffice.

Moreover, Petitioner overlooks that Paul expressly discloses that coupon validity may depend upon whether a customer meets all conditions of a coupon,

such as whether a customer's purchase includes all required items. Further, per Paul, determining coupon validity requires accessing a coupon database and retrieving the terms and conditions of each coupon, in block 555. Neither Petitioner nor Dr. Mowry consider the network bandwidth or processing requirements imposed upon Paul by requiring Paul to determine validity of each coupon in a customer's account even if such a coupon bears no relation to the product(s) that a customer intends to purchase. Petitioner is simply espousing a pejorative theory (reduced bandwidth) in a weak attempt to re-invent the challenged claims.

Second, Petitioner contends that sending only valid coupons would reduce the processing required at the POS terminal, but Petitioner fails to explain what processing is allegedly avoided at the POS terminal. The only pre-validation processing burden at the POS terminal disclosed in Paul is a comparison of coupon bar codes (CBCs) with product bar codes (PBCs) to determine whether any retrieved coupons from a customer's account match any products the customer intends to purchase, at block 530. *See* Paul, [0088]. Further, a comparison of CBCs with the PBCs of intended purchase needs to be performed at Paul's POS terminal in block 530 if any coupon is retrieved from the customer account, in order to determine whether there are any retrieved coupons that are relevant to the customer's intended purchases in Paul. Paul, [0088]-[0089]. Petitioner's argument

that Paul's comparison of CBCs to PBCs at the POS terminal 235 could somehow be eliminated or reduced, or that some other unidentified processing could be avoided, is unsupported by Petitioner's theory and proposed modification. Additionally, per Paul, after a matched CBC is transmitted to an in-store server 240 or central server 290 in block 540, redemption software looks up "detailed coupon definitions, rules of redemption, table of products applicable for that coupon, terms and conditions of coupon offer (block 555)" if there is a matching coupon in the coupon database (block 550). Paul, [0089]. Because this look-up process is performed by an in-store server 240 or central server 290 in block 540, not a POS terminal, Paul already discloses techniques to reduce processing requirements at the POS terminal. Thus, there is no logical connection between Petitioner's proposed reason to modify Paul and the modification presented by Petitioner.

Third, Petitioner contends that retrieving only valid coupons would avoid the redemption of ineligible coupons at the POS terminal. But Paul already discloses a process to avoid the redemption of expired coupons at block 575, and so a POSITA looking to achieve a feature that Paul already possess would not have sought to modify Paul as alleged. Again, there is no logical connection between Petitioner's proposed reason to modify Paul and the modification presented by Petitioner. Further, Paul expressly discloses instances where a manufacturer may decide to allow redemption of an invalid (expired) coupon. For example, a manufacturer

may have a target redemption number, and therefore may allow the redemption of coupons up to some target number even if the coupon is past its expiration date. Petitioner's proposed modification to Paul would frustrate this aspect of Paul.

Finally, neither Petitioner nor Dr. Mowry provide any real analysis behind these alleged advantages of modifying Paul with Brown. Petitioner presents attorney argument on these points and attempts to dress up these arguments with citations to Dr. Mowry's unreliable declaration. In any event, that declaration just restates the same attorney argument without further explanation or analysis. And as noted above, Dr. Mowry does not contend to have any specialized knowledge regarding the coupon processing industry or technology, including the network capabilities or POS processing capabilities that retailers and coupon clearing houses were faced with at the relevant time.

These alleged reasons to modify Paul with Brown should be rejected as unsupported and incomplete. Absent a legitimate reason to modify Paul with Brown, the Board should reject Petitioner's Ground 2.

iii. Petitioner's Challenges of Independent Claims 11, 17, 25, 30, and 33 Fail For the Same Reasons Explained for Claim 1

The Petition relies upon its failed analysis of Element [1.5] from Grounds 1 and 2 in challenging Elements [11.5], [17.5], [25.5], [30.5], and [33.5] in independent claims 11, 17, 25, 30, and 33, respectively. *See* Pet., 56-57, 60, 62,

64, and 67-68. For the same reasons discussed above, Each Ground should be rejected, and the Petition should be denied without institution.

V. CONCLUSION

For the reasons presented above, the Petition should be denied, and no *inter partes* review should be instituted.

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CERTIFICATE OF WORD COUNT

The undersigned certifies that the foregoing PATENT OWNER'S PRELIMINARY RESPONSE complies with the type-volume limitation in 37 C.F.R. § 42.24(b)(1). According to the word-processing system's word count, the brief contains 8,476 words, excluding the parts of the brief exempted by 37 C.F.R. § 42.24(a).

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CERTIFICATE OF SERVICE

Petitioner has consented to e-mail service in this proceeding. Pursuant to 37 C.F.R. §42.6, the undersigned certifies that on this date, a copy of the foregoing document was served by email upon the following counsel at the below email addresses:

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