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Paper 36
Entered: July 14, 2025

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INTERACTIVE COMMUNICATIONS INTERNATIONAL, INC.,
Petitioner,

v.

BLACKHAWK NETWORK INC.,
Patent Owner.

IPR2024-00465
Patent 11,488,451 B2

Before LINDA E. HORNER, BART A. GERSTENBLITH, and ARTHUR M. PESLAK, *Administrative Patent Judges*.

GERSTENBLITH, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
Dismissing as Moot in Part and Denying in Part
Patent Owner's Motion to Exclude
35 U.S.C. § 318(a)

I. INTRODUCTION

A. Background

Interactive Communications International, Inc. ("Petitioner") filed a Petition (Paper 1, "Pet.") requesting institution of *inter partes* review ("IPR") of claims 1–24 ("the Challenged Claims") of U.S. Patent No. 11,488,451 B2 (Ex. 1001, "the '451 patent"). Blackhawk Network Inc. ("Patent Owner") filed a confidential Preliminary Response (Paper 8, "Prelim. Resp."), a redacted, public version of the Preliminary Response (Paper 9), and a combined Motion for Protective Order and Motion to Seal (Paper 10),[1] which Petitioner did not oppose. Applying the standard set forth in 35 U.S.C. § 314(a), we instituted an *inter partes* review as to all claims and grounds set forth in the Petition. Paper 11 ("Inst. Dec."). Additionally, we granted Patent Owner's combined Motion for Protective Order and Motion to Seal. *Id.*

After institution, Patent Owner filed a Patent Owner Response (Paper 16), Petitioner filed a Reply (Paper 20, "Pet. Reply"), and Patent Owner filed a Sur-reply (Paper 24). Subsequently, Patent Owner sought (unopposed), and was granted authorization, to file corrected versions of its Patent Owner Response (Paper 30, "PO Resp.") and Sur-reply (Paper 31, "PO Sur-reply") in light of corrections made to the deposition transcript of Mr. Hutton, Petitioner's expert (Ex. 2051 (corrected)).[2] Additionally, Patent Owner filed a Motion to Exclude Evidence (Paper 25, "Motion" or "MTE"), Petitioner filed an Opposition to Patent Owner's Motion (Paper 28,

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[1] Citations to the Preliminary Response herein are to the confidential version (Paper 8), but they similarly apply to the redacted, public version (Paper 9).

[2] Citations are to the corrected versions of these Papers.

"Petitioner's Opposition" or "Opp."), and Patent Owner filed a Reply in support of its Motion (Paper 29, "MTE Reply"). An oral hearing was held on April 29, 2025, and the transcript is of record. Paper 35 ("Tr.").

We have jurisdiction pursuant to 35 U.S.C. § 6. This Decision is a Final Written Decision under 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73 as to the patentability of the Challenged Claims. Petitioner bears the burden of proving unpatentability of the Challenged Claims. *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). To prevail, Petitioner must prove unpatentability by a preponderance of the evidence. *See* 35 U.S.C. § 316(e) (2018); 37 C.F.R. § 42.1(d) (2021). Having reviewed the arguments and the supporting evidence, we determine that Petitioner has shown, by a preponderance of the evidence, that claims 1–24 of the '451 patent are unpatentable. Additionally, for the reasons explained below, we dismiss as moot in part and deny in part Patent Owner's Motion to Exclude Evidence.

B. Related Proceedings

Petitioner identifies PGR2020-00084, PGR2020-00085, IPR2023-01235, and *Blackhawk Network, Inc. v. Interactive Communications International, Inc.*, No. 2022-1650 (Fed. Cir.), as related matters. Pet. 72–73. In PGR2020-00084, Petitioner challenged several claims of U.S. Patent No. 10,769,894 B2, which shares a common parent application with the '451 patent. After trial, the Board held all challenged claims unpatentable (Ex. 1008 (Final Written Decision)) and the United States Court of Appeals for the Federal Circuit affirmed (Ex. 1009). In particular, the Federal Circuit determined "[t]he Board properly construed Szrek's disclosure of the inter-operational characteristics of a store's back office, [point of sale

(POS)] terminal, and lottery administration system" and that "the Board properly analyzed how a skilled artisan would have interpreted Szrek's teachings." *Blackhawk Network, Inc. v. Interactive Commc'ns Int'l, Inc.*, No. 2022-1650, 2023 WL 3861082, at *2 (Fed. Cir. June 7, 2023). Petitioner raises challenges based on obviousness that are similar to those it previously raised in PGR2020-00084 (e.g., obviousness over Szrek and Llach and obviousness over Szrek, Llach, and Gilmore). In PGR2020-00085, the Board denied institution. Patent Owner correctly notes that the "PGR proceedings to which . . . Petitioner cites have concluded." Paper 4 (Patent Owner's Mandatory Notices), 2. And, after most of the briefing had concluded in the present proceeding, the Board held that no challenged claims were unpatentable in IPR2023-01235, which involved a patent related to the '451 patent. *See id.*; IPR2023-01235, Paper 34 (Final Written Decision). That decision is currently on appeal before the Federal Circuit. *See* IPR2023-01235, Paper 35 (Petitioner's Notice of Appeal).

Petitioner also identifies *Blackhawk Network, Inc. v. SL Card Company*, No. 2:21-cv-00813-PHX-MTL (Ariz. Superior Court), as a related matter. Pet. 72. Petitioner explains that, in this proceeding, Patent Owner asserts a breach of contract claim against SL Card, "a company that an affiliate of Petitioner acquired on March 12, 2019." *Id.* at 72–73. The parties agree that this state court case does not involve infringement or invalidity of any patent. *Id.* at 73; *see* Paper 4, 2 (referring to what appears to be the same Arizona Superior Court litigation as "No. CV-051638" and noting that the case does not involve infringement or invalidity of the '451 patent).

C. Real Parties in Interest

Petitioner identifies Interactive Communications International, Inc. as a real party in interest. Pet. 73. Patent Owner identifies Blackhawk Network Inc. as a real party in interest (owner of all substantial interests in the '451 patent by assignment). Paper 4, 2.

In the Preliminary Response, Patent Owner asserts that Petitioner also should have identified "SL Card Company Inc. (often called 'Linq3')" as a real party in interest. Prelim. Resp. 1–2, 32–35. In the Institution Decision, we stated:

> To the extent Patent Owner seeks to pursue its argument that Linq3 is a real party of interest to Petitioner, even though no time bar under 35 U.S.C. § 315(b) has been asserted, Patent Owner may raise the issue of real party in interest again in its Patent Owner Response, and the parties may brief and argue the issue during trial.

Inst. Dec. 11. In its Patent Owner Response, Patent Owner did not raise the issue of challenging Petitioner's identified real party in interest. *See generally* PO Resp. Thus, we need not address this issue further because we find that Patent Owner has waived any challenge to Petitioner's identification of the real parties in interest in this proceeding. *See* Paper 12 (Scheduling Order), 9 ("**Patent Owner is cautioned that any arguments not raised in the response may be deemed waived.**").

D. The Asserted Grounds of Unpatentability and Declaration Evidence

Petitioner challenges the patentability of claims 1–24 of the '451 patent on the following grounds:

Claim(s) Challenged	35 U.S.C. §[3]	Reference(s)/Basis
1–9, 11–24	103	Irwin[4]
10	103	Irwin, Szrek[5]
1–10, 12–24	103	Szrek, Llach[6]
11	103	Szrek, Llach, Gilmore[7]

Pet. 2. Petitioner supports its challenge with a Declaration of Michael Hutton (Ex. 1003) and a Supplemental Declaration of Michael Hutton (Ex. 1036). Patent Owner supports its arguments with a Declaration of James McDonald (Ex. 2046[8]) and a Declaration of Jeffrey Miller, Ph.D. (Ex. 2052). Additionally, Petitioner filed a deposition transcript of Mr. Miller (Ex. 1037), and Patent Owner filed deposition transcripts of Mr. Hutton (Ex. 2048 (taken May 2, 2024); Ex. 2051 (Corrected, taken Oct. 16, 2024)).

E. The '451 Patent

The '451 patent is directed to "[a] system and method of selling pre-printed lottery tickets for random draw lotteries through the retailers

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[3] The Leahy-Smith America Invents Act ("AIA") included revisions to 35 U.S.C. § 103 that became effective on March 16, 2013. Because the '451 patent has an effective filing date after March 16, 2013 (*see* Ex. 1001, codes (22), (60), (63)), we apply the current version of § 103 here.

[4] U.S. Patent No. 9,405,984 B2, issued Aug. 2, 2016 (Ex. 1030, "Irwin").

[5] U.S. Patent No. 7,627,497 B2, issued Dec. 1, 2009 (Ex. 1005, "Szrek").

[6] U.S. Patent Application Publication No. 2013/0041768 A1, published Feb. 14, 2013 (Ex. 1006, "Llach").

[7] U.S. Patent Application Publication No. 2005/0233797 A1, published Oct. 20, 2005 (Ex. 1029, "Gilmore").

[8] Patent Owner's Amended Exhibit List (Paper 32) incorrectly lists Mr. McDonald's declaration as Exhibit 2034. *See* Paper 32, iii.

POS without the use of additional lottery hardware." Ex. 1001, code (57). The '451 patent teaches that, broadly speaking, there are two types of lotteries: (1) "instant win lotteries where a printed ticket provides all of the lottery information" and (2) a "draw-based lottery or 'online' lottery, where a player makes a wager on a subsequently occurring event." *Id.* at 1:26–33. For the draw-based lotteries, the '451 patent teaches that the typical ticket is printed using a lottery-specific terminal and specialized printing device that is wholly separate from the point of sale ("POS") terminal. *See id.* at 1:42–53.

The '451 patent teaches that, "[a]lthough the model of a single terminal and printer is effective for single checkout lane environments such as convenience stores and gas stations, it is not ideal for multi-lane environments such as grocery stores, discount and big box retailers." Ex. 1001, 1:53–57. A drawback of this system, according to the '451 patent, is that it requires a customer to wait in two separate lines (or at a minimum go to two separate locations) to purchase their goods and to purchase a lottery ticket, when in a multi-lane environment. *Id.* at 1:57–61. "This is extremely inconvenient for most customers who simply bypass the lottery counter." *Id.* at 1:61–63. Other drawbacks the '451 patent teaches are that "[i]nstalling an approved printer or any other piece of specialized [lottery] hardware at every point of payment within a retail environment is cost prohibitive and not an effective use of capital" because "not all points of payment are open at all times" and the use of specialized hardware increases the responsibility and training required for a cashier who operates the hardware. *Id.* at 1:64–2:5.

As a result, the ’451 patent states “[i]t would be desirable to enable customers to include a lottery draw ticket in their basket along with other goods and pay for that basket at any point of payment in a retail location” by using existing point of sale equipment and without requiring any additional specialized hardware. Ex. 1001, 2:10–15. The ’451 patent states that it describes “methods for selling draw[-]based tickets through the retailers POS without the use of additional hardware to generate or print the tickets.” *Id.* at 2:21–23.

The ’451 patent describes a system and method that uses a “pre-printed lottery ticket,” which acts as a uniquely identifiable “legal instrument,” to initiate and facilitate the legal transaction necessary between a customer and a lottery administration body at a POS register to enable customers to purchase a chance at winning a prize associated with an upcoming lottery. Ex. 1001, 3:4–3:27. In a more detailed explanation of the invention, the ’451 patent describes an embodiment with components of a POS, transaction processor, and lottery system, as shown in Figure 6 below.

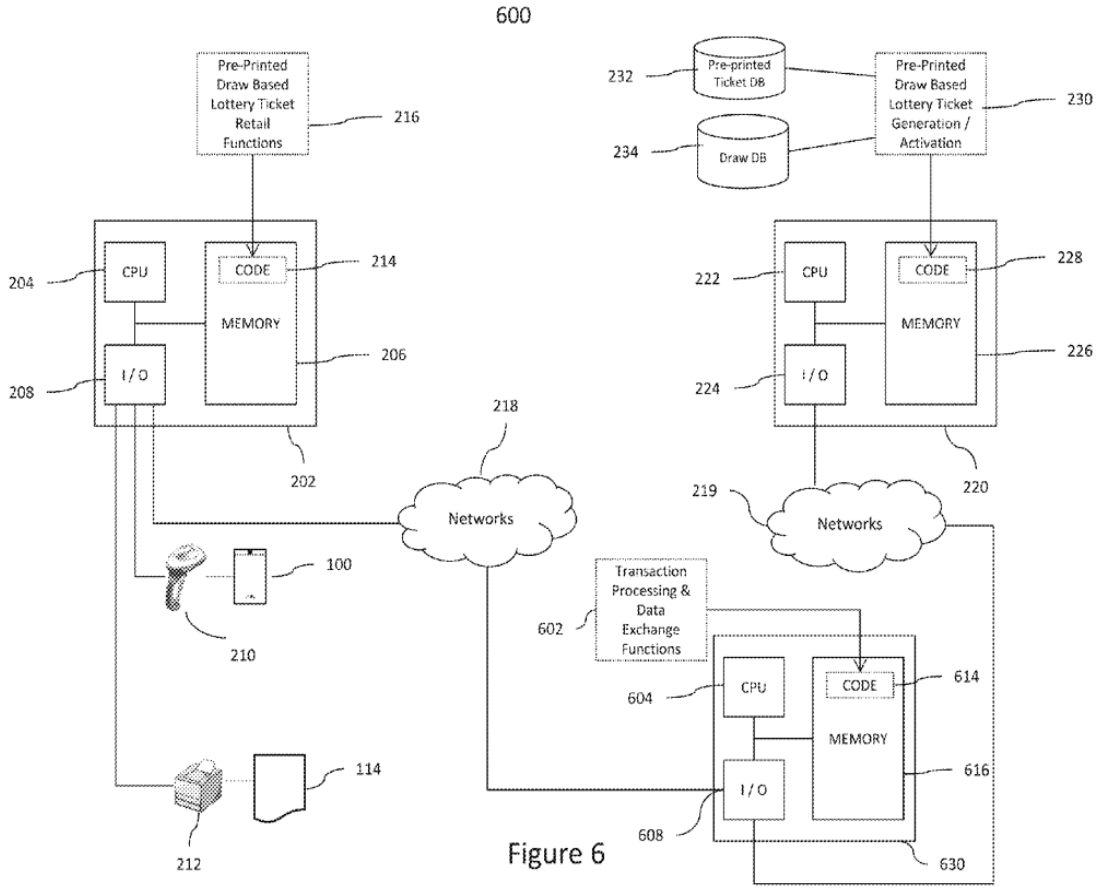

Figure 6

Id. at 2:37–38, Fig. 6. Figure 6 above "depicts components of a lottery system, point of sale environment and a transaction processor" that are "for purchasing a pre-printed lottery ticket." *Id.* at 8:6–8. As shown,

> the environment 600 for purchasing a pre-printed lottery ticket includes a retailer's point of sale terminal 202 for the retail of the pre-printed ticket, a lottery system 220 for the generation and activation of pre-printed ticket wagers and draw date and a transaction processor 630 to facilitate the exchange of data between the retailer's point of sale 202 and the lottery system 220 each connected to one other through one or more communication networks 218; 219.

Id. at 8:7–15.

The '451 patent states, "[t]he retailer's POS terminal 202 may include a central processing unit (CPU) 204, memory unit 206 and [I/O]

interface(s) 208 for communicating with devices external to the POS terminal." Ex. 1001, 8:20–23. And the '451 patent teaches that "[t]he POS terminal 202 includes instructions 214 stored in the memory unit, which when executed by the processor unit 204 configure the POS terminal 202 to provide pre-printed draw-based lottery ticketing functionality 216," including the "functionality for communicating scanned in barcode information of pre-printed lottery tickets with the transaction processor system, and receiving confirmation of the pre-printed ticket's activation." *Id.* at 8:28–36.

The '451 patent describes lottery system 220 as including "a central processing unit (CPU) 222, memory unit 226 and [I/O] interface(s) 224 for communicating with devices external to the lottery system 220." Ex. 1001, 8:37–40. When processing unit 222 executes instructions 228 stored in the memory unit 226, it "configure[s] the lottery system to provide pre-printed draw-based lottery ticket activation and cancellation functionality 230," in addition to having the functionality to "generate draw and wager information and associate the pre-printed ticket information in a draw information database 234." *Id.* at 8:40–43, 8:52–55.

Transaction processor system 630 is described by the '451 patent as including "a central processing unit (CPU) 604, memory unit 616 and [I/O] interface(s) 608 for communicating with devices external to the transaction processor system 630." Ex. 1001, 8:59–62. Memory unit 616 stores instructions that CPU 604 executes to "provide transaction processing and data exchange functionality 602" with a plurality of different retailers to a single lottery system and enable the activation or cancellation of pre-printed lottery tickets to be performed at a retailer's POS terminal 202. *Id.* at 8:62–

9:3. "Once activated, the pre-printed ticket serves as a lottery ticket and may be verified as any regular lottery ticket purchased from a lottery terminal." *Id.* at 9:30–32.

F. Illustrative Claim

Claim 1, the sole independent claim challenged in this proceeding, is illustrative of the claimed subject matter and is reproduced below with Petitioner's annotations added for reference:

> 1[pre]. A method for providing a manufactured, pre-printed, random draw lottery ticket comprising:
>
> [1[a]] (a) receiving, by a third-party transaction processor, a transaction request from a retailer point of sale (POS) to activate the manufactured, pre-printed, random draw lottery ticket, wherein the manufactured, pre-printed, random draw lottery ticket is selected by a customer prior to initiation of a check-out process and is presented by the customer for activation during the checkout process, [1[b]] wherein the third-party transaction processor receives transaction requests from a plurality of different retailers;
>
> [1[c]] (b) providing, via a first secured communication, by the third-party transaction processor, to a lottery administration system unique identification information associated with pre-printed lottery ticket information received from the retailer POS without the use of lottery hardware; and
>
> [1[d]] (c) receiving, via a second secured communication, by the third-party transaction processor, from the lottery administration system, indication that draw information has been associated with the manufactured, pre-printed, random draw lottery ticket.

Ex. 1001, 10:34–56; *see* Pet. vii.

II. ANALYSIS

A. Legal Standards – Obviousness

The U.S. Supreme Court set forth the framework for applying the statutory language of 35 U.S.C. § 103 in *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17–18 (1966):

> Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.

The Supreme Court explained in *KSR International Co. v. Teleflex Inc.* that

> [o]ften, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit.

550 U.S. 398, 418 (2007) (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." (alteration in original))).

"Whether an ordinarily skilled artisan would have been motivated to modify the teachings of a reference is a question of fact." *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1327 (Fed. Cir. 2016) (citations omitted).

"[W]here a party argues a skilled artisan would have been motivated to combine references, it must show the artisan 'would have had a reasonable expectation of success from doing so.'" *Arctic Cat Inc. v. Bombardier Recreational Prods. Inc.*, 876 F.3d 1350, 1360–61 (Fed. Cir. 2017) (quoting *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1068–69 (Fed. Cir. 2012)).

B. Level of Ordinary Skill in the Art

Petitioner proposes that the level of ordinary skill in the art is

> an artisan with a working knowledge of POS activation systems and lottery systems that was gained through a mixture of training and work experience in the relevant field such as (i) having a Bachelor's degree in computer science, computer communications, electrical engineering, or equivalent degree, coupled with at least three years of work experience; (ii) having a Master's degree in computer science, computer communications, or electrical engineering, but having less work experience; or (iii) having no formal degree, but having experience in the relevant field of at least six years of work experience.

Pet. 2–3 (citing Ex. 1003 ¶¶ 13–14).[9] Patent Owner states that, "[f]or the purpose of this proceeding, Patent Owner adopts the Petition's proposed definition of the level of ordinary skill in the art." PO Resp. 19 (citing Pet. 2–3).

We find that the parties' agreed-upon level of ordinary skill in the art is consistent with the level of ordinary skill in the art reflected by the '451 patent and the prior art of record. *See* Inst. Dec. 14; *see Okajima v.*

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[9] Petitioner proposes the same level of ordinary skill in the art that the Board adopted in PGR2020-00084 (Pet. 2–3 (citing Ex. 1008, 11)), and IPR2023-01235 (*see* IPR2023-01235, Paper 34 at 12–13).

Bourdeau, 261 F.3d 1350, 1355 (Fed. Cir. 2001); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995); *In re Oelrich*, 579 F.2d 86, 91 (CCPA 1978). Therefore, we adopt the parties' agreed-upon level of ordinary skill in the art, as articulated above, in our consideration of the issues presently before us.

C. Claim Construction

In this *inter partes* review, claims are construed using the same claim construction standard that would be used to construe the claims in a civil action under 35 U.S.C. § 282(b). *See* 37 C.F.R. § 42.100(b) (2020). The claim construction standard includes construing claims in accordance with the ordinary and customary meaning of such claims as understood by one of ordinary skill in the art at the time of the invention. *See id.*; *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–14 (Fed. Cir. 2005) (en banc). In construing claims in accordance with their ordinary and customary meaning, we take into account the specification and prosecution history. *Phillips*, 415 F.3d at 1315–17.

If the specification "reveal[s] a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess[,] . . . the inventor's lexicography governs." *Phillips*, 415 F.3d at 1316 (citing *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002)). Another exception to the general rule that claims are given their ordinary and customary meaning is "when the patentee disavows the full scope of a claim term either in the specification or during prosecution." *Uship Intellectual Props., LLC v. United States*, 714 F.3d 1311, 1313 (Fed. Cir. 2013) (quoting *Thorner v. Sony Computer Entm't Am., LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012)). "The standard[] for finding . . .

disavowal [is] exacting." *GE Lighting Solutions, LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1309 (Fed. Cir. 2014). A finding of prosecution disclaimer "requires that the alleged disavowing actions or statements made during prosecution be both clear and unmistakable." *TecSec, Inc. v. Int'l Bus. Machs. Corp.*, 731 F.3d 1336, 1346 (Fed. Cir. 2013) (quoting *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1325–26 (Fed. Cir. 2003)).

Additionally, only terms that are in controversy need to be construed, and these need be construed only to the extent necessary to resolve the controversy. *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) ("The Board is required to construe 'only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.'") (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

1. "transaction processor"

First, Petitioner contends that it "applies the ordinary meaning of the terms." Pet. 11 (citing Ex. 1003 ¶ 92).

Second, Petitioner asserts that "the plain meaning of 'transaction processor' is as the Board construed it in PGR2020-00084: 'a processor that processes transactions between two devices.'" Pet. 12 (quoting Ex. 1008, 22) (citing Ex. 1008, 13–24; Ex. 1003 ¶¶ 93–94).

Third, Petitioner contends "[t]he claims and [S]pecification are clear that the transaction processor is a separate device from the POS terminal and the lottery administration system." Pet. 12 (citing Ex. 1003 ¶¶ 95–96). Petitioner asserts that claim 6 makes clear that these are separate components by reciting "a 'transaction processor comprising: at least one communication interface for communicating with *other computing systems*'

and a 'processing unit configure[d]' to 'transmit[]' and 'receiv[e]' information from a POS terminal or lottery administration system." *Id.* (alterations in original). Petitioner also contends the Specification "supports that these components are separate." *Id.* (citing Ex. 1001, 8:8–15, 8:59–62; Ex. 1003 ¶ 96). And Petitioner asserts that, in PGR2020-00084, the Board reached a similar conclusion. *Id.* (citing Ex. 1008, 17–20, 20–22).

In PGR2020-00084, the Board construed "transaction processor"[10] in accordance with its plain meaning as "a processor . . . that processes transactions between two devices" and specifically "decline[d] to limit 'transaction processor' . . . to 'third party' processors . . . because the intrinsic record does not justify such a modification and it would create uncertainty." Ex. 1008, 22. Petitioner contends that, unlike the claims at issue in PGR2020-00084, the claims at issue here expressly recite "third-party transaction processor," and therefore "it is not necessary to further construe" the term. Pet. 12–13 (citing Ex. 1003 ¶ 97).

Patent Owner contends, in its Response, that all claim terms "have been given their plain and ordinary meaning." PO Resp. 20.

We need not construe "transaction processor" expressly because its meaning is not in dispute and its construction is not necessary to resolve the controversy before us.

2. "random draw lottery ticket"

In addressing Petitioner's challenge based on Irwin (Grounds 1 and 2), Patent Owner raises an issue as to the meaning of the phrase "random

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[10] In that proceeding, the Board also construed "transaction processor system." Ex. 1008, 13–22.

draw lottery ticket." PO Resp. 40–41. Petitioner responds in its Reply. Pet. Reply 10–14.

As reflected in the parties' briefing, the meaning of the phrase "random draw lottery ticket" is disputed in the context of the parties' arguments regarding Irwin (Grounds 1 and 2). *See, e.g.*, PO Resp. 40–41; Pet. Reply 10–14. For the reasons explained below, we do not reach the grounds based on Irwin. Therefore, because the meaning of this phrase is not in controversy as applied to the grounds based on Szrek (Grounds 3 and 4), we need not, and do not, construe "random draw lottery ticket" expressly.

D. Ground 3: Obviousness over Szrek and Llach[11]

Petitioner asserts that Szrek in combination with Llach would have rendered the subject matter of claims 1–10 and 12–24 obvious to one of ordinary skill in the art before the effective filing date of the claimed invention. Pet. 47–69. Patent Owner does not challenge Petitioner's assertion that each of the limitations of claims 1–10 and 12–24 is disclosed by Szrek in combination with Llach or that one of ordinary skill in the art would have had a reasonable expectation of success in achieving the combination; rather, Patent Owner limits its argument to contending that Petitioner has failed to show that one of ordinary skill in the art would have been motivated to combine the teachings of Szrek and Llach as proposed by Petitioner. PO Resp. 49–61. Below, we first focus our analysis on the parties' arguments regarding motivation to combine, which is where the parties' dispute is centered. Even though not disputed by Patent Owner, we

[11] We address the Szrek-based grounds (Grounds 3 and 4) first because we find them dispositive.

also address reasonable expectation of success for completeness. We then discuss Petitioner's analysis of claim 1 in detail, followed by a brief discussion of the other claims challenged under this Ground.

1. Scope and Content of the Prior Art

a. Szrek (Ex. 1005)

Szrek's stated goal "is to enable the secure sale of lottery tickets at general retail point of sale (POS) checkout points, such as standard cash registers, and other similar devices." Ex. 1005, 1:16–19. Szrek teaches that "[l]otteries and other gaming organizations [are] continuously look[ing] for ways to increase their lottery ticket sales" and that one known way to accomplish this is "by widening their market presence and improving [the] ticket sale experience for the public." *Id.* at 1:20–23. An obstacle with widening the market presence that Szrek seeks to address is created by how lottery tickets are traditionally sold. According to Szrek, "[t]raditionally lottery tickets [were] sold at the dedicated lottery terminals, usually located in small convenience stores and in supermarkets which is typically a single terminal at a service desk." *Id.* at 1:23–26. Although studies show a dedicated lottery terminal placed at the regular POS lanes in a supermarket was well received by customers, such a configuration did not prove financially successful, partly because of the relatively high cost of in-line lottery terminals compared to the levels of sale per lane. *Id.* at 1:26–34. To address this obstacle, Szrek teaches that "there [was] consideration in the industry to effectuate lottery ticket sales by existing store cash registers." *Id.* at 1:37–38.

However, Szrek states, because of the wide variety of hardware and software used for cash registers, the conventional thinking was that

developing a solution would be "difficult if not impossible" due to significant security, operational, and printing problems. Ex. 1005, 1:50–60, 1:63–66. Szrek teaches that skilled artisans viewed regular cash register paper stock as inadequate for lottery ticket use "because it is insecure, non-durable and non-uniform from manufacturer to manufacturer." *Id.* at 1:57–60. These paper requirements existed because it was "understood in the industry that a lottery ticket is considered a bearer's bond," which serves as "proof of a valid transaction and of the bet wagered." *Id.* at 2:4–6. As a result, "[l]ottery tickets usually contain[ed] information about [the] wagered bet, date when [the] ticket was purchased and date of [the] game draw, selling entity information . . . and a unique transaction identifier." *Id.* at 2:6–10. Thus, Szrek states that "there is a demand for the ability to sell lottery tickets at cash registers." *Id.* at 2:60–61.

Szrek discloses a method and system for selling lottery tickets at POS registers, which "completely obviates the need for the local printing of lottery tickets at the point of sale" because "[o]nly a receipt of [the] lottery transaction is printed locally at the cash register which does not need to be printed in as secure fashion as a lottery ticket." Ex. 1005, 5:21–25. To carry out the disclosed system and method, Szrek states, "it is assumed that an environment is provided where the cash register is capable of communicating with the game provider (directly or indirectly) and the game provider system (or some other system on behalf of [the] game provider system) is authorizing [the] cash register's lottery transactions," which may be "stored in [the] game provider system or in another system." *Id.* at 3:14–20.

Szrek describes the following as a "novel" aspect of the disclosed method: "instead of printing the lottery ticket, from a legitimate and authorized game provider, on the cash register, the ticket is preprinted (printed ahead of the ticket sale . . .)." Ex. 1005, 3:22–28. Szrek teaches that the preprinted ticket contains many elements of a traditional lottery ticket, including bet selections, a unique ticket identifier, a barcode that includes a ticket identifier, a duration for number of eligible draws (if activated), and a ticket price. *Id.* at 5:65–6:2. However, the preprinted ticket "does not have a play value until it is activated at the cash register." *Id.* at 3:38–40.

Szrek teaches that the cash register activates the ticket by scanning the ticket barcode, which "originates a transaction to the game provider requesting ticket activation" and, in response, the game provider authorizes the activation as well as provides back the lottery product description, price, and the activation receipt identifier. Ex. 1005, 3:41–45, 4:56–64. Once the preprinted ticket is activated, the cash register prints a receipt, which may include a product type, the original preprinted ticket identifier, an activation identifier, security codes, an activation price, and a valid draw identifier, such as draw number or draw time. *Id.* at 6:54–59. "Because [the] lottery ticket is preprinted in a secure fashion, and only an activation receipt for the transaction is printed at [the] cash register, the [preprinted] ticket could be regarded as secure." *Id.* at 3:55–57. As a result, Szrek teaches that the preprinted ticket may be used as a valid bearer's bond only once the ticket is activated and the cash register receipt serves only as proof that the ticket was activated. *Id.* at 4:26–31.

b. Llach (Ex. 1006)

Llach discloses a "computer implemented method for adding value to a stored value card in excess of the purchase price for the stored value card." Ex. 1006, code (57). Llach, in one embodiment, utilizes a stored value card transaction computer 150 to communicate with point-of-sale component 111 and card issuers' authorization system 160. *Id.* at ¶ 18; *see also id.* at Fig. 1. The stored value card transaction system contains

> (a) at least one point of sale component 111; (b) a stored value card transaction computer 150; (c) a datastore 180 containing stored value card identifiers, stored value card account information, value added award conditions . . . , and other information related to activating, redeeming, and managing stored value cards; (d) at least one individual card issuers' authorization system 160; and (e) any other component included in the system by the stored-value card transaction computer administrator 151.

Id. at ¶ 18.

2. Motivation to Combine and Reasonable Expectation of Success

Petitioner contends that, "[w]hile Szrek does not expressly disclose a third-party transaction processor, Llach discloses a third-party transaction processor and it would have been obvious to modify Szrek to include Llach's third-party transaction processor." Pet. 47 (citing Ex. 1003 ¶¶ 179–254). Specifically, Petitioner asserts it would have been obvious to modify Szrek's system for activating lottery tickets "to incorporate Llach's teachings of an intermediary transaction computer between Szrek's cash register and game provider system, as well as Llach's encryption and use of

[a virtual private network (VPN)] for communications to and from the transaction computer." *Id.* at 47 (citing Ex. 1003 ¶¶ 180–187).

Petitioner contends that one of ordinary skill in the art would have been motivated to make the combination "because it would expand Szrek's system, allowing it to have a centralized system for activating lottery tickets from different retailers and different locations." Pet. 47 (citing Ex. 1003 ¶ 181). Further, Petitioner asserts that "a centralized intermediary allows for support for different game providers, such as different lottery companies. This would reduce implementation costs." *Id.* Petitioner also states Llach's transaction computer discloses several features that would be desirable to one of ordinary skill in the art, including

> (1) the ability to communicate "with individual card issuers' authorization systems 160 to effectuate activation or deactivation of the transaction cards" [and] (2) the ability to communicate with "other entities" that may provide useful services, such as "third party payment management systems, third party audit systems, card issuer, affiliated entities, card vendor affiliated entities, redeeming merchants or redeeming merchant affiliated entities, financial institutions, such as banks and credit unions, or any other entity provided access by the stored value card transaction computer administrator."

Id. at 47–48 (citing Ex. 1006 ¶¶ 30, 32) (citation omitted).

Petitioner contends that one of ordinary skill in the art would have been motivated "to combine Llach's teachings into Szrek because Szrek expressly teaches their compatibility." Pet. 48 (citing Ex. 1003 ¶ 182). Petitioner asserts that "Szrek teaches that its process for activating pre-printed lottery tickets 'is similar to a model following selling phone cards at a cash register.'" *Id.* (quoting Ex. 1006, 2:36–46). Specifically, Petitioner contends that Szrek's process for phone card activation (and hence

activation of pre-printed lottery tickets) is "broadly . . . the same system disclosed by Llach." *Id.* (citing Ex. 1003 ¶ 182). Petitioner further argues that Szrek "discloses that communications between POS terminals and the game provider system can be done 'indirectly,' such as through an intermediary like that disclosed in Llach." *Id.* (citing Ex. 1005, 3:15–17). Thus, Petitioner contends that, "[b]ecause of these compatibilities between gift card activation systems and lottery ticket activation, a [person of ordinary skill in the art] would understand that the proposed combination would simply be the application of Llach's known techniques for using a transaction computer to activate substrates to Szrek's known system." *Id.* at 49 (citing Ex. 1003 ¶ 184).[12]

Additionally, Petitioner contends that one of ordinary skill in the art "would have combined Szrek and Llach as proposed with a reasonable expectation of success." Pet. 49 (citing Ex. 1003 ¶ 185). Petitioner asserts that Szrek and Llach are compatible with one another and that "[i]ncorporating Llach's transaction computer with Szrek's system would also be well within the capabilities of a [person of ordinary skill in the art] because such modification would be minimal and trivial to implement." *Id.* at 49–50; *see id.* at 50 ("Llach provides numerous implementation details for implementing the functionalities of its transaction computer as well as communications to and from the transaction computer."). And Petitioner contends that "the combination of Szrek and Llach would have yielded

[12] Petitioner also points to Patent Owner's commercial activities as providing additional support for Petitioner's asserted motivation to combine. Pet. 49. As explained below, we do not rely on Petitioner's argument in this regard in reaching our determination here.

predictable results." *Id.* at 50. Specifically, one of ordinary skill in the art "would have readily understood that combining Szrek with Llach would predictably result[] in Szrek's system modified to use Llach's transaction computer as an intermediary between the POS terminal and game provider system." *Id.* (citing Ex. 1003 ¶ 186).

Patent Owner asserts that Petitioner's proposed combination is "contrived and unsupported by the references' disclosures." PO Resp. 49; *see id.* at 50 (contending the same). Patent Owner first points to Szrek, noting that "Szrek discloses a cash register 230 that communicates with a game provider 250 either directly or indirectly," but "does not describe direct communication in any detail." *Id.* at 49 (citing Ex. 1005, 3:14–17, 4:23–25). Patent Owner identifies Szrek's Figure 2, however, as "illustrat[ing] indirect communication where the cash register 230 communicates a 'request for sales information' to a store back office 240 when it scans merchandise, requesting product and price." *Id.* (citing Ex. 1005, 4:56–59). Patent Owner explains that, for a lottery ticket, Szrek's store back office "transforms the request to a 'ticket activation request' and sends it to a game provider 250." *Id.* (citing Ex. 1005, 4:59–64). "The game provider 250 authorizes ticket activation, and sends back a lottery product description, a price, and an activation receipt identifier," which "[t]he cash register 230 prints . . . on [a] receipt." *Id.* at 49–50 (citing Ex. 1005, 4:59–64, 4:65–67, 6:28–43).

Patent Owner then describes Llach's use of a third-party transaction computer—stored value card transaction computer—that receives a request from a point-of-sale component and determines whether a stored value card is eligible for a value-added award. PO Resp. 50–51 (citing Ex. 1006 ¶¶ 3,

4, 34–36. As Patent Owner explains, Llach's third-party transaction computer offers a way to "add[] value to a stored value card in excess of the purchase price for the stored value card" to allow "card issuers to distinguish themselves in the marketplace from other issuers of stored value cards." *Id.* (citing Ex. 1006 ¶ 4).

Patent Owner asserts that one of ordinary skill in the art "would have no reason to modify Szrek's system as Petitioner proposes, to place 'an intermediary transaction computer . . . between Szrek's cash register and game provider system." PO Resp. 52 (citing Pet. 47; Ex. 1005, Fig. 2 (annotated)). Patent Owner initially raises issues that it sees with Petitioner's proposed combination and then addresses Petitioner's alleged motivation. We discuss each.

First, Patent Owner contends, "Szrek discloses an embodiment where the cash register 230 already communicates ***directly*** with the game provider 250." PO Resp. 52 (citing Ex. 1005, 3:14–17). Patent Owner asserts that one of ordinary skill in the art, "who is interested in speed, efficiency, and ease of implementation . . . would not be motivated to interpose a transaction computer between two components, the cash register 230 and the game provider 250, that already communicate directly with each other." *Id.* (citing Ex. 2052 ¶ 163). Patent Owner further argues that "[d]oing so only adds delay, reduces efficiency, and creates implementation complexities by converting a simple, direct communication exchange into an exchange that traverses multiple systems." *Id.* (citing Ex. 2052 ¶ 163).

We do not agree with Patent Owner's argument that one of ordinary skill in the art would not have been motivated to modify Szrek such that the

cash register and game provider communicate indirectly. Szrek expressly discloses that its "cash register is capable of communicating with the game provider system (directly or indirectly)." Ex. 1005, 3:14–17. And Szrek discloses an example of indirect communication in Figure 2, which shows the cash register communicating with the game provider through the store back office, i.e., indirectly. *Id.* at Fig. 2; *see id.* at 4:22–25 ("After the ticket identifier is obtained, an authorization request is sent to the game provider either directly from the cash register or indirectly via the store 'back office'."). Thus, to the extent Patent Owner's arguments can be read as contesting whether one of ordinary skill in the art would have been motivated to modify Szrek to include an indirect communication between the cash register and game provider, we disagree with Patent Owner because Szrek explicitly discloses an embodiment where indirect communication is employed.

Second, Patent Owner asserts that one of ordinary skill in the art would understand that "the configuration where a cash register 230 communicates with a game provider 250 ***indirectly*** through a back office 240 (FIG. 2) employs a ***store*** back office for a reason." PO Resp. 53 (citing Ex. 1005, 2:51; Ex. 2052 ¶¶ 152–161). In particular, Patent Owner contends that a store back office "allows the cash register 230 to process a lottery ticket like any other product." *Id.* (citing Ex. 1005, 6:30–34, 4:56–59); *see id.* (noting that a store back office "typically contains a database that relates product and price information to scanned UPC codes" (citing Ex. 2052 ¶¶ 153–154)). Patent Owner asserts that, for "non-lottery products, the store back office 240 returns product and price information to the cash register in response to a scanned UPC code" and, for lottery products, "the

store back office 240 transforms the request that the cash register 230 generates from a UPC code into an activation request that is sent to the game provider 250." *Id.* (citing Ex. 1005, 4:59–64; Ex. 2052 ¶ 160). According to Patent Owner, the game provider "returns the product description and price, which the store back office 240 provides to the cash register." *Id.* (citing Ex. 1005, 4:50–67). Thus, Patent Owner explains that "the cash register 230 handles lottery tickets as any other product, and the store back office 240 handles the communication exchange with the game provider 250." *Id.* at 53–54 (citing Ex. 2052 ¶¶ 160–161).

Patent Owner contends that "[e]mploying an intermediary transaction computer . . . , as the Petition proposes, creates unnecessary complexity in Szrek's FIG. 2 embodiment" because "the cash register[] 230 would need to be programmed to handle lottery tickets differently than other merchandise." PO Resp. 54 (citing Ex. 2052 ¶¶ 164–166). In particular, Patent Owner asserts that the cash register would no longer function to request the same information from the store back office with each UPC code scan; rather, "the cash register must distinguish a lottery ticket's UPC code from UPC codes of other products, and it must direct communications to different entities, the store back office 240 vs. Petitioner's intermediary transaction computer." *Id.* (citing Ex. 2052 ¶¶ 164–166). Patent Owner contends that one of ordinary skill in the art "would have no reason to do so when it: a) increases implementation complexity to Szrek's system, and b) Szrek discloses a back-office computer 240 that already possesses all functionality to manage communication with the game provider 250 for activating tickets." *Id.* (citing Ex. 2052 ¶¶ 164–166).

In Reply, Petitioner contends that even if the combination leads to some disadvantages those disadvantages are not enough to rebut its arguments and evidence of motivation to combine. Pet. Reply 28–29. Additionally, Petitioner asserts that the combination does not forego the back office for retrieving product type and price information. *Id.* at 30. Petitioner contends that two alternative embodiments of the combination, created during Mr. Hutton's deposition, reflect changes to Szrek in terms of the communication paths for the lottery ticket activation request and activation response.[13] *Id.* at 30–31. In particular, Exhibit 2050 illustrates the following embodiment showing the placement of the third-party transaction processor:

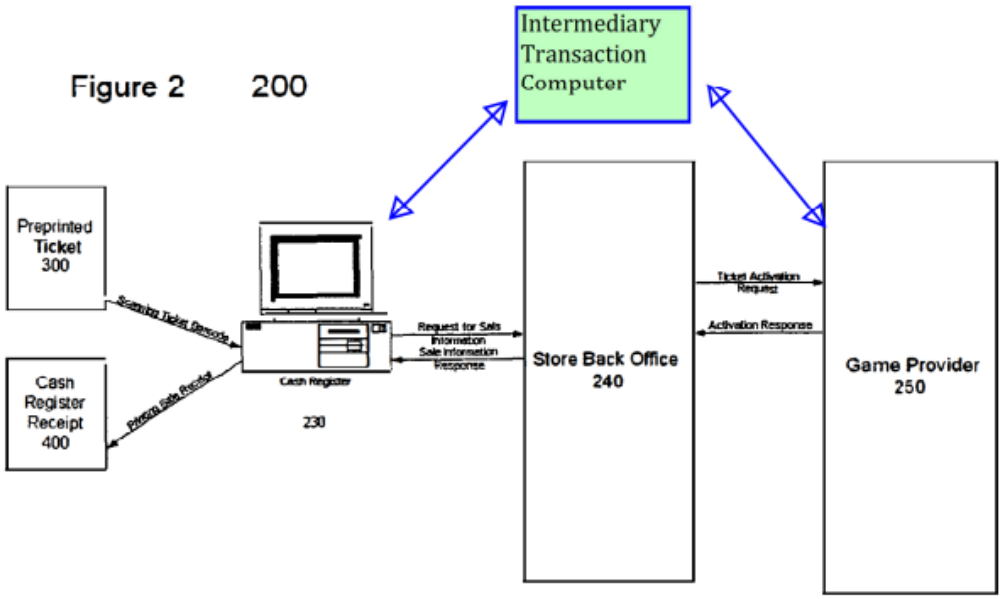
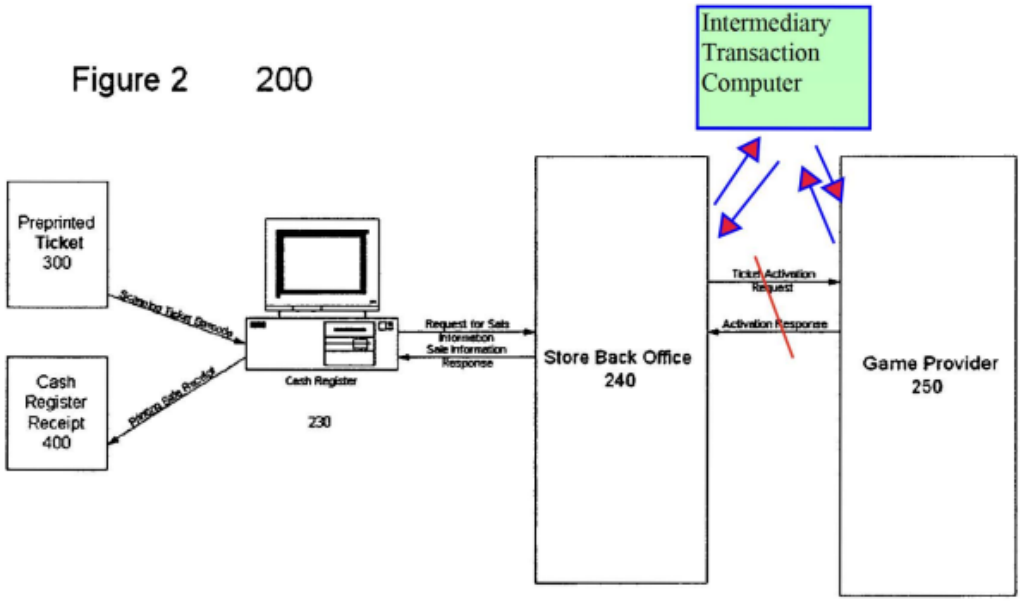


Exhibit 2050 is an annotated version of Szrek's Figure 2 showing the placement of Llach's third-party transaction processor (labelled

[13] Petitioner's counsel acknowledged during oral argument that Mr. Hutton's testimony on this issue is "a little bit confused, but it's consistent with his statement in the declaration." Tr. 13:11–13.

"Intermediary Transaction Computer") between cash register 230 and game provider 250, and new communication channels for a ticket activation request and a ticket activation response between the cash register, intermediary transaction computer, and game provider that bypasses the store back office. *See, e.g.*, Ex. 2051, 119:18–121:16 (explaining that "if there's no store back office . . . and the cash register's not using the store back office to do these lottery transactions, it would -- certainly could talk to the intermediary transaction computer").[14]

And Exhibit 2049 illustrates a second embodiment showing the placement of the third-party transaction processor:



[14] Although not as clear as it could have been, Mr. Hutton's testimony regarding the communication channel for the ticket activation request and activation response indicate that the communication is no longer between the store back office and the game provider; rather, the communication of that request and response is between the cash register and game provider. *See* Ex. 2051, 119:18–121:16.

Exhibit 2049 is an annotated version of Szrek's Figure 2 showing the placement of Llach's third-party transaction processor (labelled "Intermediary Transaction Computer") between store back office 240 and game provider 250, and new communication channels for a lottery ticket activation request and a ticket activation response between the store back office and game provider. *See* Ex. 2051, 107:16–109:7 (explaining that the store back office and game provider communicate the ticket activation request and activation response through the intermediary transaction computer).

In its Sur-reply, Patent Owner challenges two aspects of Petitioner's Reply argument pertaining to the arrangement of the components in the combined system. First, Patent Owner contends that the Petition does not describe a "role for the back office," but that in Petitioner's Reply, the cash register sends authorization requests through the back office. PO Sur-reply 26. Although the role of the store back office is not specifically described in the combination presented in the Petition or Mr. Hutton's Declaration (Ex. 1003), there is no specific indication that the cash register no longer communicates with the store back office for transactions unrelated to activation requests or responses and no specific indication that the store back office is no longer part of the combined system. Additionally, Mr. Hutton explained during his deposition that, in the combination shown in Exhibit 2050, "the cash register still communicate[s] with the back office to perform whatever function's necessary by the back office." Ex. 2051, 129:4–8; *see id.* at 128:21–129:8 (describing Exhibit 2050 and the context of Mr. Hutton's testimony). Accordingly, we do not agree with Patent Owner

that Petitioner's explanation of the role of the store back office in the Reply, in the context of Exhibit 2050, is improper.

Second, Patent Owner contends that Petitioner should not be permitted to present Exhibit 2049 as an embodiment within the proposed combination because the intermediary transaction computer is not placed between the cash register and game provider system; rather, the intermediary transaction computer is placed between the store back office and game provider system. PO Sur-reply 26–27. Petitioner asserts that Llach's intermediary transaction computer is between Szrek's cash register and the game provider system, as Mr. Hutton's Declaration states, even in the arrangement shown in Exhibit 2049 where the activation requests and responses are communicated through the store back office to reach the intermediary transaction computer. Pet. Reply 9. In response to questioning by Patent Owner's counsel during his deposition, Mr. Hutton explained that, when he referred to "cash register" in paragraph 180 of his declaration (Ex. 1003), one of ordinary skill in the art would have understood him to mean "point of sale," which includes "the cash register[] plus the store back office, or just the cash register." Ex. 2051, 123:15–21.

We do not accept Mr. Hutton's explanation. In Declaration paragraph 180, Mr. Hutton specifically refers to "Szrek's cash register," not Szrek's point of sale. *See* Ex. 1003 ¶ 180 ("between Szrek's cash register and game provider system"). And, in paragraph 186, Mr. Hutton uses a synonym for Szrek's cash register—point of sale (POS) *terminal*—to describe the placement of Llach's transaction computer. *See id.* ¶ 186 ("Szrek's system modified to use Llach's transaction computer as an intermediary between the POS *terminal* and game provider system"

(emphasis added)). In other words, Mr. Hutton's testimony equates Szrek's cash register with a point-of-sale *terminal* not a point-of-sale in general that could potentially include a store's back office. Patent Owner has not identified any instance where Mr. Hutton's Declaration equates Szrek's cash register (or a cash register generally) to point of sale that would include a store back office, as opposed to point of sale *terminal*. Thus, we do not find Mr. Hutton's deposition testimony credible that he intended to equate his use of "Szrek's cash register" to a point of sale that would include a store back office. And we similarly do not find that one of ordinary skill in the art would have understood his Declaration in that regard. Thus, although we agree with Petitioner that Llach's transaction computer is technically "between" Szrek's cash register and game provider in the combination shown in Exhibit 2049,[15] we agree with Patent Owner that Mr. Hutton's explanation as to how his Declaration supports that combination is not credible for the reasons discussed above.[16] Thus, we limit our consideration of the issues before us to the combination shown in Exhibit 2050.

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[15] In the combination shown in Exhibit 2049, we find that Llach's transaction computer is placed "between" the cash register and game provider because communication cannot flow from the cash register to the game provider without passing through Llach's transaction computer.

[16] Regarding the issues presented for our consideration in this proceeding, this is the only testimony by Mr. Hutton that we do not find credible. And, although we recognize that Mr. Hutton's testimony was confusing regarding exactly where one would place Llach's intermediary transaction computer, in that he, at first, rejected the arrangement shown in Exhibit 2050 (*see* Ex. 2051, 103:24–104:9), on further questioning, Mr. Hutton confirmed that Exhibit 2050 reflects one arrangement of the combination that falls within what he intended to convey in his Declaration (*see id.* at 123:23–124:1).

Turning back to Patent Owner's arguments in response to Petitioner's motivation to combine generally, Patent Owner raises a third argument—that the proposed combination would create complexities related to Szrek's audit processing function. PO Resp. 54–55. Patent Owner contends that, in Szrek, regardless of whether cash register 230 communicates directly or indirectly with game provider 250, "only two parties need to perform an accounting of ticket activations"—the retailer and the game provider. *Id.* (citing Ex. 2051, 79:5–86:8; Ex. 2052 ¶ 167). Patent Owner asserts that the addition of Llach's third-party transaction processor "doubles accounting complexity" because now three accountings are required—the retailer, the game provider, and the third-party transaction processor. *Id.* at 55 (citing Ex. 2052 ¶ 167). Patent Owner contends one of ordinary skill in the art "would not be inclined to modify Szrek's system to add an intermediary transaction processor as Petitioner proposes when doing so adds complexity." *Id.* (citing Ex. 2052 ¶ 168).

In Reply, Petitioner contends there is no need for the third-party transaction computer to perform its own accounting. Pet. Reply 31. Petitioner states that accounting from Szrek's POS terminal and game provider is enough to "ensure that their accountings of activations are consistent." *Id.* (citing Ex. 2051, 79:9–80:6; Ex. 1036 ¶ 39).

Patent Owner responds by arguing that auditing only at the POS and game provider would be inconsistent with the teachings of Llach. PO Sur-reply 27 (citing Ex. 1030 ¶¶ 27, 39, 50). Additionally, Patent Owner argues that "using the Llach architecture to implement Szrek's capability, not Llach's capability," would lead to additional complexity and implementation costs. *Id.*

We need not determine if the proposed combination would necessitate auditing at the third-party transaction processor. Even if an accounting at the third-party transaction processor were required, Petitioner contends that there could be advantages to the third-party processor providing auditing capabilities as a service. Pet. Reply 31–32 (citing Ex. 1036 ¶ 39). We recognize the potential complexity and implementation costs presented by Patent Owner and we weigh these likely disadvantages against Petitioner's identified advantages of the combination after we address Patent Owner's additional arguments below.

Fourth, Patent Owner argues that the Petition lacks a sufficient rationale for adding Llach's third-party transaction processor to Szrek because one of ordinary skill in the art "would recognize that Szrek's system ***already*** has a centralized system for activating lottery tickets—the lottery tickets are activated by the game provider 250." PO Resp. 55–56 (citing Pet. 47; Ex. 1005, 3:46–49, 4:60–64, 6:34–43; Ex. 2052 ¶ 170). And Patent Owner asserts that game provider 250 activates lottery tickets that are distributed to different retailers and retail locations via Szrek's ticket distributors 160. *Id.* at 56 (citing Ex. 1005, 2:2–30; Ex. 2048, 27:3–13). Patent Owner contends that one of ordinary skill in the art "would not add a transaction computer to perform functions that Szrek's system already performs itself." *Id.* at 57.

Additionally, Patent Owner contends that Szrek's cash register (whether directly or via a store back office) "already communicates with activation systems for different products" (e.g., "phone cards, random draw lottery tickets, and instant win lottery tickets"), and, thus, Petitioner's assertion that the proposed combination beneficially allows Szrek's cash

register to communicate with different game providers or different lottery companies is insufficient to justify the modification proposed by Petitioner. PO Resp. 57–58 (citing Ex. 1005, 2:48–53, 4:56–58, 7:9–11, 4:22–25; Ex. 2052 ¶ 171). Patent Owner also asserts that it "was well known that cash registers 230 communicate with retailer computer systems to support auditing" and that several functions are also provided by the store's back-office system. *Id.* at 58 (citing Ex. 2051, 81:11–86:22; Ex. 2052 ¶ 172). Thus, Patent Owner contends that "the so-called 'expansion' that Petitioner identifies as purportedly provided by its proposed modification is no expansion at all" because Szrek's system already performs the same functions. *Id.*; *see* PO Resp. 58–59 (asserting Llach supports Patent Owner's argument that "point of sale systems possess many of the capabilities that the Petition alleges would be expanded by use of Llach's techniques").

We disagree with Patent Owner that Szrek explicitly discloses that it already operates as a centralized system in the same manner as the proposed Szrek-Llach combination. Specifically, Szrek's system is described as including a store interacting with a single game provider system. *See, e.g.*, Ex. 1005, Fig. 1 (depicting store 110 interacting with game provider system 250). Although game provider system 250 can provide various products (as Petitioner contends), we do not discern and neither party has identified in Szrek, any explicit disclosure of Szrek's system interacting with multiple game provider systems as would be possible with Petitioner's combination. During oral argument, Patent Owner's counsel pointed to Szrek's disclosure that other products can be sold through the point-of-sale terminal (e.g., phone cards) and asserted that there is an "inference to be

drawn from the discussion" that Szrek can support multiple game provider systems. *See* Tr. 60:24–25. Patent Owner's counsel similarly stated that there is no indication of a "one-to-one kind of relationship between these things"; rather, "the store back office . . . just talks to whomever needs to be talked to." *Id.* at 61:11–15; *see id.* at 61:9–10 ("We think that's the inference to be drawn from this description."); *see* also Ex. 1005, 2:48–53 (describing phone card activation), 4:56–58 (describing lottery ticket activation), 7:9–11 (describing instant ticket registration). Of note, neither party asserts that Szrek expressly discloses its cash register or store back office as interacting with multiple game provider systems. *See, e.g.*, Tr. 64:9–16 (Petitioner's counsel noting the irony of Patent Owner's position that Szrek has an inference that it can include multiple game providers). Additionally, and importantly, even if we accept that Szrek has an inference that its system is capable of such interaction and expansion, we find that said inference supports, rather than detracts from, Petitioner's proposed combination because the inference would encourage one of ordinary skill in the art to expand on Szrek's express disclosure by including a third-party transaction processor to facilitate multiple game providers. *See* Pet. 47 (asserting that a "centralized intermediary allows for support for different game providers, such as different lottery companies"); Ex. 1003 ¶ 181 (opining that a centralized intermediary would reduce implementation costs).

Fifth, Patent Owner asserts that "[t]he forced nature of Petitioner's invalidity theories is shown also by its argument that obviousness somehow is shown by Patent Owner's commercial activities." PO Resp. 59 (citing Pet. 49). As noted above, we agree with Patent Owner that it is improper for Petitioner to rely on Patent Owner's own activities in commercializing its

products in the context presented here, and we do not rely on these activities in reaching our determination here.

Sixth, Patent Owner asserts that Petitioner's arguments in support of motivation to combine "leverage none of the functionality that Llach proposes to augment stored value cards." PO Resp. 60. Although Petitioner does not explicitly rely on Llach's functionality to augment stored value cards (*see* PO Sur-reply 25 (asserting that the Petition does not explicitly reference Llach's added value techniques in the discussion of motivation to combine or analysis of the claims)), Petitioner correctly notes in its Reply that the combination presented in the Petition relies on "Llach's known techniques for using a transaction computer to activate substrates," which we agree include the functionality to augment stored value cards. Pet. Reply 27 (citing Pet. 49; Ex. 1003 ¶ 184). Regardless, Petitioner is not required to rely on all the functionality of Llach's third-party transaction processor to present a compelling reason as to why one of ordinary skill in the art would have been motivated to modify Szrek as proposed.

On balance, we find that even with the alleged disadvantages identified by Patent Owner, one of ordinary skill in the art would have been motivated to modify Szrek with Llach's third-party transaction processor because the advantage of having a "centralized intermediary" allows Szrek's system to support different game providers, such as different lottery companies, which would reduce some implementation costs and allow the system to be more easily and cheaply extended. Pet. 47 (citing Ex. 1003 ¶ 181); *see Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1165 (Fed. Cir. 2006) ("a given course of action often has simultaneous advantages and disadvantages, and this does not necessarily obviate motivation to combine")

(citing *Winner Int'l Royalty Corp. v. Wang*, 202 F.3d 1340, 1349 n.8 (Fed. Cir. 2000)); *see also Intel Corp. v. Qualcomm Inc.*, 21 F.4th 784, 795 (Fed. Cir. 2021) (stating the same). We acknowledge that the combination comes with some disadvantages, including "add[ed] delay, reduce[d] efficiency, and . . . implementation complexities by converting a simple, direct communication exchange into an exchange that traverses multiple systems." PO Resp. 52 (citing Ex. 2052 ¶ 163). But, "[t]he fact that the motivating benefit comes at the expense of another benefit, however, should not nullify its use as a basis to modify the disclosure of one reference with the teachings of another. Instead, the benefits, both lost and gained, should be weighed against one another." *Winner*, 202 F.3d at 1349 n.8. Here, Szrek expressly teaches indirect communication as a possible implementation of its system and Petitioner's combination—employing Llach's third-party transaction processor as part of the indirect communication channel—offers the attractive benefit of allowing Szrek's system to support different game providers, which would reduce some implementation costs even if it might increase other costs, e.g., by having to program certain components (e.g., the cash registers) differently. Specifically, we find that the ability to expand Szrek's system to support different game providers provides advantages that outweigh the disadvantages discussed above in the circumstance where one desires a more robust and comprehensive system. *See* Pet. Reply 23 (noting three advantages of the combination— (1) "allow[ing] Szrek's system to use 'a centralized system for activating lottery tickets from different retailers and different locations,'" (2) "allow[ing] support for different game providers, such as different lottery companies," "reduc[ing] implementation costs," and (3) "allow[ing] Szrek's system to 'communicate with individual card

issuers' authorization systems 160 to effectuate activation or deactivation of the transaction cards' and "'communicate with other entities that may provide useful services'" (third alteration in original) (citing Pet. 47–48)).

Additionally, we reach the same result even if we assume that, in the combination, Szrek's cash register would handle lottery tickets differently than other merchandise. *See* PO Resp. 54 (citing Ex. 2052 ¶¶ 164–166). In fact, as Petitioner points out, Szrek explicitly contemplates that a cash register may handle certain transactions differently and utilize alternate connection methods. *See* Pet. Reply 29–30 (noting that Szrek discloses an example of phone card registration where the cash register is capable of either sending a request directly to a phone service provider or indirectly via the store back office) (citing Ex. 1005, 2:48–50, 3:15–16, 4:37–38). Thus, we are persuaded that utilizing Llach's third-party transaction processor as presented in the Petition, Mr. Hutton's testimony (*see, e.g.*, Ex. 1003 ¶¶ 180–181), and Exhibit 2050, would not be a significant departure from Szrek's system. And, for the same reasons we explained above, even if the modification may introduce a new complexity for Szrek's system, having a "centralized intermediary" in the combination benefits Szrek's system by enabling it to support different game providers, such as different lottery companies, which would reduce some implementation costs and allow the system to be more easily and cheaply extended. *See* Pet. 47–48 (citing Ex. 1003 ¶¶ 180–187).[17]

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[17] We acknowledge Patent Owner's argument regarding improper hindsight (*see, e.g.*, PO Sur-reply 20), but we disagree because we find that Petitioner has presented sufficient reasoning with rational underpinning as to why one of ordinary skill in the art would have been motivated to combine Szrek and Llach as proposed.

Further, although Patent Owner does not expressly contest Petitioner's arguments regarding reasonable expectation of success, we set forth Petitioner's arguments and Mr. Hutton's testimony (above) and we find that one of ordinary skill in the art would have had a reasonable expectation of success in achieving the combination proposed by Petitioner for the reasons explained by Petitioner. *See* Pet. 49–50 (citing Ex. 1003 ¶¶ 185–186).

Accordingly, considering our discussion and analysis above, we find that Petitioner has established that one of ordinary skill in the art would have been motivated to improve Szrek's method for selling lottery tickets by adding Llach's transaction computer, as reflected in Exhibit 2050, and would have had a reasonable expectation of success.[18]

3. Claims 1–10 and 12–24

As noted above, Patent Owner does not challenge Petitioner's assertion that each of the limitations of claims 1–10 and 12–24 is disclosed

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[18] Petitioner asserts, in its Reply, that Dr. Miller "has no experience with lottery systems and minimal experience with POS activation systems," and, therefore, "he does not meet the definition of a [person of ordinary skill in the art] and his opinions are entitled to no weight." Pet. Reply 6–7. During oral argument, Petitioner's counsel acknowledged that Petitioner did not file a motion to exclude Dr. Miller's testimony; rather, Petitioner asserts Dr. Miller's testimony should be given less weight. Tr. 23:7–12. We disagree that Dr. Miller's testimony should be given less weight on this basis. In IPR2023-01235, Dr. Miller provided testimony on Patent Owner's behalf on a related patent with a common specification and the same level of skill in the art was applied in that proceeding as is applied here. *See* IPR2023-01235, Paper 34 at 12–13; Ex. 2038 (Dr. Miller's declaration in that proceeding). As noted above, a final written decision has issued in IPR2023-01235, and the decision is currently on appeal. Petitioner, however, did not challenge Dr. Miller's qualifications then and, for that reason, we do not entertain such challenge now.

by Szrek in combination with Llach; rather, Patent Owner limits its argument to contending that Petitioner has failed to show that one of ordinary skill in the art would have been motivated to combine the teachings of Szrek and Llach as proposed by Petitioner. PO Resp. 49–61. Therefore, we find that Patent Owner has waived any challenge to Petitioner's mapping of claims 1–10 and 12–24. *See* Paper 12 (Scheduling Order), 9 ("**Patent Owner is cautioned that any arguments not raised in the response may be deemed waived.**"). Nonetheless, because Petitioner has the burden of proof, we walk through Petitioner's analysis of the claims below, focusing in detail on claim 1.

a. Independent Claim 1

i. 1[pre]

The preamble of claim 1 recites "[a] method for providing a manufactured, pre-printed, random draw lottery ticket comprising." Ex. 1001, 10:34–35. Petitioner contends "Szrek discloses ***a method for providing a manufactured, pre-printed, random draw lottery ticket***." Pet. 50 (citing Ex. 1003 ¶¶ 188–189). Petitioner asserts "Szrek is directed to a 'method and system for ***selling game of chance tickets*** at a point of sale cash register.'" *Id.* (quoting Ex. 1005, code (57)). Petitioner further states that Szrek discloses that the tickets include "***draw*** identifier 460, such as ***draw number*** or ***draw time***" and that the "ticket can be ***preprinted*** . . . as a computer generated selections (quick pick)," where "'quick pick' refer[s] to a random draw." *Id.* at 50–51 (citing Ex. 1005, 6:58, 3:28–31; Ex. 1003 ¶ 188) (omission in original). Petitioner contends that the preprinted ticket of Szrek is manufactured because it is "preprinted 'by a commercial printer,'

can be 'enveloped or covered by latex,' and contain a 'manufacturer's ID.'" *Id.* (citing Ex. 1005, 3:26–27, 3:31–32, 4:46–48).

Patent Owner does not challenge Petitioner's argument and evidence directed to the preamble of claim 1. *See generally* PO Resp.

We find Petitioner's arguments persuasive as to the preamble of claim 1 and supported on the record before us for the reasons explained by Petitioner.

ii. Element 1[a]

Element 1[a] recites

> (a) receiving, by a third-party transaction processor, a transaction request from a retailer point of sale (POS) to activate the manufactured, pre-printed, random draw lottery ticket, wherein the manufactured, pre-printed, random draw lottery ticket is selected by a customer prior to initiation of a check-out process and is presented by the customer for activation during the checkout process.

Ex. 1001, 10:36–43.

Petitioner addresses the selection clause of element 1[a] first. Petitioner argues that "Szrek discloses that '[a] lottery player may choose his own selection and . . . he may pick up a ticket 300 printed by the commercial printer 140.'" Pet. 51 (quoting Ex. 1005, 6:24–27) (alteration and omission in original). Petitioner contends that Szrek discloses the ticket being "'activat[ed] . . . via a cash register 230' by a 'store clerk.'" *Id.* (citing Ex. 1005, 6:28–37) (alteration in original). Petitioner asserts that "[p]icking up a ticket to be activated by a store clerk requires presenting said ticket to the clerk for activation." *Id.* (citing Ex. 1003 ¶¶ 190–191).

Petitioner, addressing the receiving clause of element 1[a], contends Szrek teaches that to "'activat[e] the lottery ticket 300 via a cash

register 230,' '[t]he store clerk scans ticket 300 like any other product,' which results in a 'transactional request to the game provider 250.'" Pet. 51–52 (citing Ex. 1005, 6:28–37; Ex. 1003 ¶ 192) (alterations in original).

Turning to the recited "third-party transaction processor" of element 1[a], Petitioner contends Szrek discloses "'cash register 230' sends a 'transactional request to the game provider 250,'" and that the communications can occur "directly or indirectly." Pet. 52 (citing Ex. 1005, 6:28–37, 3:14–17). Petitioner contends that Szrek "does not explicitly disclose that indirect communications with the game provider are routed through a 'third-party transaction processor,'" but turns to Llach as teaching "transmitting an activation request from a POS terminal to a 'stored value card transaction computer 150,' *i.e.* ***a third-party transaction processor***." *Id.* (citing Ex. 1003 ¶ 194; Ex. 1006 ¶ 33). Petitioner explains that Llach's "transaction computer" is a "***transaction processor*** because it is ***a processor that processes transactions between two devices***." *Id.* (citing Ex. 1003 ¶ 195).

Additionally, Petitioner assets that Llach discloses "the transaction computer 150 'may be implemented on any general-purpose computer with sufficient processing power,' and 'includes a ***processor*** 582.'" Pet. 52–53 (citing Ex. 1006 ¶ 74). Petitioner contends that Llach discloses "at least four 'different' parties: 'a card vendor, a redeeming merchant, and a card issuer,' as well as a 'consumer.'" *Id.* at 53 (citing Ex. 1006 ¶ 13). Further, Petitioner asserts that Llach discloses some embodiments in which the "'transaction computer' is "'part of the same entity' as 'the card issuer' and 'the authorizing system,' making the transaction computer a ***third-party***

transaction processor.'" *Id.* at 53–54 (citing Ex. 1006 ¶ 40; Ex. 1003 ¶ 196).

Patent Owner does not challenge Petitioner's argument and evidence directed to element 1[a] of claim 1. *See generally* PO Resp.

We find Petitioner's arguments persuasive as to element 1[a] of claim 1 and supported on the record before us for the reasons explained by Petitioner.

iii. Element 1[b]

Element 1[b] recites "wherein the third-party transaction processor receives transaction requests from a plurality of different retailers." Ex. 1001, 10:43–45. Petitioner contends Llach discloses that "'[t]he point of sale where stored value cards are purchased and activated may be referred to as the card vendor or simply vendor' and that 'cards may be sold at the same or different card vendor.'" Pet. 54 (quoting Ex. 1006 ¶ 14) (alteration in original). Petitioner asserts that Llach's transaction computer 150 "will 'communicat[e] with card ***vendors***,' i.e. ***a plurality of different retailers***." *Id.* (citing Ex. 1006 ¶¶ 14, 24). Petitioner also contends Llach discloses that "the activation request contains the 'identification of the activating vendor' and their 'location,'" and that the "cards from one vendor 'may be issued by Store X, by Store Z.'" *Id.* (citing Ex. 1006 ¶¶ 34, 14). Therefore, Petitioner asserts that the stored value cards of Llach may be "purchased at multiple retailers, that the transaction computer communicates with multiple retailers, and that the transaction request identifies which of multiple retailers sent the request." *Id.* (citing Ex. 1003 ¶¶ 198–199). Petitioner contends that one of ordinary skill in the art "would understand from these disclosures that Llach's transaction computer receives transaction requests from multiple

retailers." *Id.* (citing Ex. 1003 ¶¶ 198–199). Additionally, Petitioner asserts that one of ordinary skill in the art "would have found it obvious to incorporate Llach's transaction computer in Szrek as an intermediary processor between the cash register and game provider." *Id.* at 55 (citing Ex. 1003 ¶ 200).

Patent Owner does not challenge Petitioner's argument and evidence directed to element 1[b] of claim 1. *See generally* PO Resp.

We find Petitioner's arguments persuasive as to element 1[b] of claim 1 and supported on the record before us for the reasons explained by Petitioner.

iv. Element 1[c]

Element 1[c] recites "(b) providing, via a first secured communication, by the third-party transaction processor, to a lottery administration system unique identification information associated with pre-printed lottery ticket information received from the retailer POS without the use of lottery hardware; and." Ex. 1001, 10:46–51. Petitioner contends Szrek discloses "the transaction request sent to the game provider (via the third-party transaction processor in the Szrek-Llach combination) includes the ticket identifier (*i.e.* ***unique identification information***) obtained from the lottery ticket's barcode." Pet. 55 (citing Ex. 1003 ¶¶ 201–202). Petitioner asserts "Szrek states that, 'during ticket activation, the game provider . . . recognizes ***from the ticket identifier*** what transaction is activated . . . ,' which means the game provider must have received the ticket identifier." *Id.* (quoting Ex. 1005, 3:47–50) (citing Ex. 1005, 6:39–39). Petitioner contends that

> [s]ince the ticket identifier originates from scanning the ticket at the POS terminal, a [person of ordinary skill in the art] would understand . . . that the POS terminal also sent the ticket identifier to the transaction processor within the transaction request, which was then sent to the game provider, in order to provide the game provider the necessary information to activate the correct ticket.

Id. at 55–56 (citing Ex. 1003 ¶ 202).

Additionally, Petitioner asserts it would have been obvious to one of ordinary skill in the art "for the POS terminal to transmit the ticket identifier to the game provider via the transaction processor (in the Szrek-Llach combination) because the game provider 'recognizes ***from the ticket identifier*** what transaction is activated.'" Pet. 56 (citing Ex. 1003 ¶ 203). Petitioner contends it "would have also been beneficial to transmit the ticket identifier with the transaction request because sending them separately would be slower, less efficient, and more difficult to implement than sending them in a single transaction." *Id.* Petitioner argues that a person of ordinary skill in the art "would have reasonably expected transmitting the ticket identifier with the transaction request to succeed since transmitting information was a conventional computer process and implementation was within the capabilities of a [person of ordinary skill in the art], and indeed would be trivial." *Id.*

Further, Petitioner contends Szrek teaches that "the cash register scans the ticket ***without the use of lottery hardware***." Pet. 56. Specifically, Petitioner points to Szrek's stated "goal of the present invention"—"to enable the secure sale of lottery tickets at general retail point of sale (POS) checkout points, such as standard cash registers, and other similar devices' rather than utilizing 'relatively high cost in-lane lottery terminals.'" *Id.* at

56–57 (citing Ex. 1005, 1:16–32; Ex. 1003 ¶ 204). And Petitioner asserts Llach discloses that "communications into and out of the transaction computer 'may be encrypted for added security and/or may utilize a virtual private network (VPN).'" *Id.* at 57 (citing Ex. 1006 ¶ 18; Ex. 1003 ¶ 206).

Patent Owner does not challenge Petitioner's argument and evidence directed to element 1[c] of claim 1. *See generally* PO Resp.

We find Petitioner's arguments persuasive as to element 1[c] of claim 1 and supported on the record before us for the reasons explained by Petitioner.

v. Element 1[d]

Element 1[d] recites "(c) receiving, via a second secured communication, by the third party transaction processor, from the lottery administration system, indication that draw information has been associated with the manufactured, pre-printed, random draw lottery ticket." Ex. 1001, 10:52–56. Petitioner contends Szrek discloses "that after the game provider (*i.e.* ***lottery administration system***) activates a ticket, it 'sends activation receipt info to the cash register' (*i.e.* ***POS terminal***) and that '***only*** an activation receipt for the transaction is printed at cash register.'" Pet. 57 (citing Ex. 1005, 3:53–56). Petitioner asserts that, "[i]n the proposed Szrek-Llach combination, Llach's 'transaction computer' is an intermediary between the game provider and cash register and therefore receives the activation receipt information." *Id.* at 58 (citing Ex. 1003 ¶¶ 207–208).

Additionally, Petitioner asserts that the "activation receipt is ***an indication that draw information has been associated with the lottery ticket***" and that Szrek discloses that "[o]nce the ticket 300 is activated . . . the ***original preprinted ticket identifier 330***, . . . and valid ***draw***

identifier 460, such as draw number or draw time, are printed on [a] cash register receipt." Pet. 58 (citing Ex. 1005, 6:54–59) (first alteration and omissions in original). Petitioner contends that, "[b]ecause the draw information are included with the 'original preprinted ticket identifier,' they are ***associated with the lottery ticket***." *Id.* (citing Ex. 1003 ¶ 209).

Further, Petitioner argues that Llach discloses the second secure communication when it teaches "that communications into and out of the transaction computer 'may be encrypted for added security and/or may utilize a virtual private network (VPN).'" Pet. 58–59 (citing Ex. 1006 ¶ 18). Petitioner asserts that "[t]his includes the network communications in the proposed Szrek-Llach combination between the transaction processor and the game provider." *Id.* at 59 (citing Ex. 1003 ¶ 211).

Patent Owner does not challenge Petitioner's argument and evidence directed to element 1[d] of claim 1. *See generally* PO Resp.

We find Petitioner's arguments persuasive as to element 1[d] of claim 1 and supported on the record before us for the reasons explained by Petitioner.

Accordingly, we find Petitioner establishes that the Szrek-Llach combination teaches or suggests the subject matter of claim 1.

b. Dependent Claims 2–10 and 12–24

Claims 2–10 and 12–24 depend, directly or indirectly, from claim 1. Ex. 1001, 10:57–11:31, 11:37–12:41. Petitioner sets forth a detailed analysis of these claims with supporting evidence. Pet. 59–69. Patent Owner does not challenge Petitioner's contentions. *See generally* PO Resp. We have reviewed Petitioner's arguments and evidence, and we find that Petitioner establishes that the Szrek-Llach combination teaches or suggests

the subject matter of claims 2–10 and 12–24 for the reasons explained by Petitioner. Pet. 59–69.

4. Objective Indicia of Nonobviousness

Neither party presents evidence of objective indicia of nonobviousness.

5. Weighing the Graham Factors

"Once all relevant facts are found, the ultimate legal determination [of obviousness] involves the weighing of the fact findings to conclude whether the claimed combination would have been obvious to an ordinary artisan." *Arctic Cat*, 876 F.3d at 1361. On balance, considering the record presently before us, Petitioner has established that the subject matter of claims 1–10 and 12–24 of the '451 patent would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention.

E. Ground 4: Obviousness over Szrek, Llach, and Gilmore

Petitioner contends that the combination of Szrek, Llach, and Gilmore would have rendered the subject matter of claim 11 obvious to one of ordinary skill in the art before the effective filing date of the claimed invention. Pet. 69–70.

1. Scope and Content of the Prior Art – Gilmore

Gilmore relates to a "system for selling game tickets for purchase by a game player within a store." Ex. 1029, code (57). Gilmore describes the system as including "a point of sale terminal in communication with a game monitor that detects inputted game selection data and determines therefrom the number and type of game tickets to be played" and "a ticket dispensing system in communication with the game monitor." *Id.* Gilmore describes that, when the game monitor detects the activation of a predetermined

terminal key of the POS terminal, it "dispenses the desired number and type of game tickets from the ticket dispensing system." *Id.*

2. Claim 11

Petitioner sets forth a detailed analysis showing how the combination of Szrek, Llach, and Gilmore teaches or suggests each of the limitations of claim 11 and why one of ordinary skill in the art would have been motivated to modify the Szrek-Llach combination to include teachings from Gilmore with a reasonable likelihood of success. Pet. 69–70. Patent Owner does not challenge Petitioner's contentions regarding this ground beyond the arguments we address above pertaining to the Szrek-Llach combination. *See generally* PO Resp. We have reviewed Petitioner's arguments and evidence, and we find that Petitioner establishes that the combination of Szrek, Llach, and Gilmore teaches or suggests the subject matter of claim 11 and that one of ordinary skill in the art would have been motivated to combine the teachings of Szrek, Llach, and Gilmore with a reasonable expectation of success for the reasons explained by Petitioner. Pet. 69–70.

3. Objective Indicia of Nonobviousness

As noted above, neither party presents evidence of objective indicia of nonobviousness.

4. Weighing the Graham Factors

"Once all relevant facts are found, the ultimate legal determination [of obviousness] involves the weighing of the fact findings to conclude whether the claimed combination would have been obvious to an ordinary artisan." *Arctic Cat*, 876 F.3d at 1361. On balance, considering the record presently before us, Petitioner has established that the subject matter of claim 11 of the

’451 patent would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention.

F. Ground 1: Obviousness over Irwin
Ground 2: Obviousness over Irwin and Szrek

Petitioner asserts Irwin would have rendered the subject matter of claims 1–9 and 11–24 obvious and the combination of Irwin and Szrek would have rendered the subject matter of claim 10 obvious to one of ordinary skill in the art at the time of the invention. Pet. 13–45 (Ground 1), 45–46 (Ground 2).

Above, we found all challenged claims to be unpatentable, so we need not (and do not) address whether Petitioner also has shown the claims to be unpatentable based on these alternative grounds. *See SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1359 (2018) (holding a petitioner “is entitled to a final written decision addressing all of the claims it has challenged”); *Boston Sci. Scimed, Inc. v. Cook Grp. Inc.*, 809 F. App’x 984, 990 (Fed. Cir. 2020) (non-precedential) (recognizing that the “Board need not address issues that are not necessary to the resolution of the proceeding” and, thus, agreeing that the Board has “discretion to decline to decide additional instituted grounds once the petitioner has prevailed on all its challenged claims”).

III. PATENT OWNER’S MOTION TO EXCLUDE

Patent Owner filed a Motion to Exclude Evidence, seeking to exclude Exhibit 1036 (Supplemental Declaration of Michael Hutton), Exhibit 1038 (Glossary of Lottery Terms), Exhibit 1039 (article about gaming in Spain),

and Exhibit 1040[19] (U.S. Patent Application Publication No. 2013/0204777). MTE 1. Patent Owner contends that Exhibit 1036 should be excluded because it is untimely and contains new opinions that "go in new directions as compared to EX1003" (Mr. Hutton's Declaration submitted with the Petition). *Id.* at 3. Despite seeking to exclude the entirety of Exhibit 1036, Patent Owner only raises argument challenging two aspects of Mr. Hutton's rebuttal testimony: (1) testimony regarding random draw lotteries and "passive game[s]" (*id.* at 3–6) and (2) testimony regarding "what a lottery ticket is and how it relates to Irwin's disclosure of a hanging plastic card" and "quick-pick card" (*id.* at 6–7).

In its Opposition, Petitioner contends, *inter alia*, that despite Patent Owner's attempt to exclude the entirety of Exhibit 1036, Patent Owner only raises argument directed to the issues noted above and, therefore, exclusion of Mr. Hutton's entire supplemental declaration is improper. Opp. 3 n.1.

We agree with Petitioner that Patent Owner has not established that Mr. Hutton's entire Supplemental Declaration should be excluded. Paragraphs 1–3 of Exhibit 1036 are general background testimony from Mr. Hutton about his retention in the matter, compensation, etc. and do not include any opinions on the subject matter of this proceeding. Ex. 1036 ¶¶ 1–3. In paragraph 4, Mr. Hutton simply incorporates his "Legal

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[19] Prior to the oral hearing, Petitioner requested expungement of Exhibit 1040 to narrow the issues in the case. Patent Owner did not oppose. Therefore, we expunged Exhibit 1040 and confirmed with the parties that any reference to Exhibit 1040 in Mr. Hutton's Supplemental Declaration would be ignored. *See* Ex. 3001 (email exchange between Petitioner's counsel and the Board, dated Apr. 25 and 28, 2025); *see also* Tr. 5:7–15 (explaining why we did not agree to Petitioner altering Exhibit 1036 at this late stage in the proceeding to remove references to Exhibit 1040).

Understanding" section from his first declaration (Ex. 1003). *Id.* ¶ 4. In paragraphs 5–29, Mr. Hutton testifies about Irwin, including the topics to which Patent Owner specifically raises argument in its Motion. *Id.* ¶¶ 5–29. In paragraphs 30–39, Mr. Hutton testifies about the Szrek-Llach combination, presented in Grounds 3 and 4 (Ground 4 including Gilmore as well). *Id.* ¶¶ 30–39. And in paragraphs 40–41, Mr. Hutton includes general testimony about potentially sitting for a second deposition and his declaration regarding the truth of the opinions he states in the Supplemental Declaration. *Id.* ¶¶ 40–41. Thus, the only testimony subject to the arguments raised in Patent Owner's Motion is presented in paragraphs 5–29, all of which pertain to Irwin. Irwin is presented in Grounds 1 and 2 of the Petition, which we do not reach because our determination as to Grounds 3 and 4 resolves the patentability of the Challenged Claims. Patent Owner does not raise any specific argument directed to Mr. Hutton's testimony pertaining to Grounds 3 or 4. *See generally* MTE. Therefore, because we do not reach the issues to which Mr. Hutton's challenged testimony is directed, Patent Owner's Motion is *dismissed as moot* as applied to paragraphs 5–29 of Exhibit 1036.

Further, because Patent Owner does not raise any argument specifically directed to Mr. Hutton's testimony in paragraphs 1–4 and 30–41 of his Supplemental Declaration, we find that Patent Owner fails to establish that it is entitled to the relief of excluding the testimony presented in those paragraphs. Accordingly, Patent Owner's Motion is *denied* as applied to paragraphs 1–4 and 30–41 of Exhibit 1036.

Turning to Exhibits 1038 and 1039, Petitioner and Mr. Hutton only rely on these exhibits in the context of Grounds 1 and 2. *See generally*

Pet. Reply; Ex. 1036. Neither Petitioner nor Mr. Hutton relies on either exhibit for Grounds 3 and 4 and, correspondingly, they do not form any basis for our resolution of any issue presented in this Decision. Therefore, because we do not reach the issues to which Exhibits 1038 and 1039 are directed, Patent Owner's Motion is *dismissed as moot* as applied to Exhibits 1038 and 1039.

Accordingly, for the reasons explained above, we *dismiss as moot in part* and *deny in part* Patent Owner's Motion to Exclude Evidence.

IV. CONCLUSION[20]

For the reasons discussed above, Petitioner has demonstrated, by a preponderance of the evidence, that claims 1–24 of the '451 patent are unpatentable. Further, Patent Owner's Motion to Exclude Evidence is *dismissed as moot in part* and *denied in part*.

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[20] Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner's attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*, 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. *See* 37 C.F.R. § 42.8(a)(3), (b)(2).

Our conclusions regarding the Challenged Claims are summarized below:

Claims Challenged	35 U.S.C. §	Reference(s) /Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1–9, 11–24	103	Irwin[21]		
10	103	Irwin, Szrek[22]		
1–10, 12–24	103	Szrek, Llach	1–10, 12–24	
11	103	Szrek, Llach, Gilmore	11	
Overall Outcome			1–24	

V. ORDER

Accordingly, it is:

ORDERED that claims 1–24 of U.S. Patent No. 11,488,451 B2 are determined to be unpatentable;

FURTHER ORDERED that Patent Owner's Motion to Exclude Evidence (Paper 25) is *dismissed as moot in part* and *denied in part*; and

FURTHER ORDERED that, because this is a Final Written Decision, parties to this proceeding seeking judicial review of this Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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[21] For the reasons explained above, we do not reach this alternative ground because we determine that claims 1–9 and 11–24 are unpatentable based on Grounds 3 and 4.

[22] For the reasons explained above, we do not reach this alternative ground because we determine that claim 10 is unpatentable based on Ground 3.

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