

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ACTIVISION BLIZZARD, INC.,
Petitioner,

v.

MILESTONE ENTERTAINMENT, LLC,
Patent Owner.

IPR2025-00712
Patent 11,393,279 B2

Before SCOTT A. DANIELS, KEVIN W. CHERRY, and
SCOTT C. MOORE, *Administrative Patent Judges*.

CHERRY, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining No Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. INTRODUCTION

Activision Blizzard, Inc. (“Petitioner”)¹ filed a petition to institute *inter partes* review of claims 1, 3–9, 13, 17, 18, 23, 25, 26, 28, and 29 (the “Challenged Claims”) of U.S. Patent No. 11,393,279 B2 (Ex. 1001, “the ’279 patent”). Paper 3 (“Pet.”). Milestone Entertainment, LLC (“Patent Owner”)² filed a Preliminary Response. Paper 10. We instituted *inter partes* review under 35 U.S.C. § 314(a). Paper 15 (“Inst. Dec.”).

During the trial, Patent Owner filed a Response (Paper 19, “PO Resp.”), Petitioner filed a Reply (Paper 21, “Reply”), and Patent Owner filed a Sur-Reply (Paper 22, “Sur-Reply”).

The parties requested oral argument. Papers 23, 25. A hearing was conducted on June 23, 2026. Paper 32 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is entered pursuant to 35 U.S.C. § 318(a). Having reviewed the complete trial record, we determine that Petitioner has not shown, by a preponderance of the evidence, that the challenged claims are unpatentable.

II. BACKGROUND

A. *Related Matters*

Petitioner and Patent Owner identify as a related proceeding *Milestone Entertainment, LLC v. Activision Blizzard, Inc.*, No. 2:24-cv-04056-AB-MRW (C.D. Cal.). Pet. 2; Paper 4, 1. Petitioner also states that it

¹ Petitioner states that the “real party-in-interest is Activision Blizzard, Inc., which is a wholly-owned subsidiary of Microsoft Corporation.” Pet. 2.

² Patent Owner identifies no additional real parties in interest. Paper 4 (Patent Owner’s Mandatory Notices), 1.

has filed petitions for *inter partes* review challenging claims of “related family members” in IPR2025-00708 (U.S. Patent No. 8,529,336 B2), IPR2025-00709 (U.S. Patent No. 10,650,635 B2), IPR2025-00710 (U.S. Patent No. 10,825,294 B2), IPR2025-00711 (U.S. Patent No. 11,335,164 B2), and IPR2025-00713 (U.S. Patent No. 11,501,607 B2). Pet. 2.

B. *The '279 Patent (Ex. 1001)*

The '279 patent, titled “System for Implementing Enhanced Gaming and Prizing Parameters in an Electronic Environment,” issued July 19, 2022, based on an application filed November 12, 2021, that asserts the benefit of a series of applications, the earliest of which was filed September 2, 2003. Ex. 1001, codes (22), (45), (54), (60). The '279 patent discloses a system “for effecting defined game play and prizing structure parameters in an electronic entertainment environment.” *Id.* at code (57).

The system may receive a number of mandated parameters that must be achieved by the system as a whole. *Id.* at 5:5–7. These parameters “form the boundary constraints or boundary conditions for the game.” *Id.* at 5:9–11. For example, mandated parameters “may consist of prize payout and win rates, and may include such factors as the minimum payout amount, the maximum payout amount, a defined percentage payout, the number of prizes, and/or the form of prizes.” *Id.* at 5:11–15. Once the system receives the mandated parameters, it then “selects among dependent variable parameters to implement game play and prizing in a way that achieve[s] the mandated parameters.” *Id.* at 5:18–21. Examples of variable parameters include “the game selection itself” and “the game structure itself, such as in the use of decision points, numbers of levels of game play, and/or duration of game play.” *Id.* at 5:52–57.

The '279 patent describes that “[i]n certain games, the entertainment may be broadly divided into a first game play phase and a second prizing phase.” *Id.* at 7:5–7. “Game play in the first phase may be of any manner, whether predetermined, or where the player’s actions determine the game outcome, or a combination of the two, such as in a hybrid game.” *Id.* at 7:10–7:13. “The game play in the second phase may then apply the prizing parameters such that the correct prizing payouts are achieved, irrespective of the results from the first phase of game play.” *Id.* at 7:13–16.

Figure 1, reproduced below, is “a diagrammatic block diagram of one implementation of the system.” *Id.* at 15:35–37.

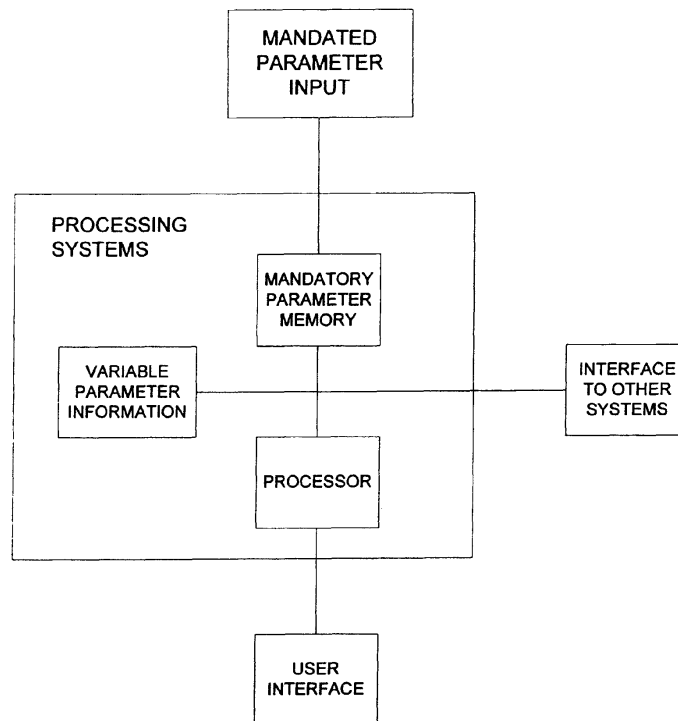


FIG. 1

Figure 1 shows inputs to and outputs from processing systems of the invention. *Id.* at 15:42–51. As shown, mandated parameters may be inputted to the processing system. *Id.* at 15:42–43. These mandated parameters are then stored within the processing system, such as in the mandated parameter memory. *Id.* at 15:43–45. “The processor receives and implements the mandated parameters by selecting among the possible variable parameters,” which are stored in variable parameter memory, for implementation. *Id.* at 15:45–47. The output of the processor is then provided to the user via the user interface. *Id.* at 15:51–53.

As shown, for example, in Figure 18, the “processing system may interface to other systems as well.” *Id.* at 15:51–54. Figure 18 is reproduced below.

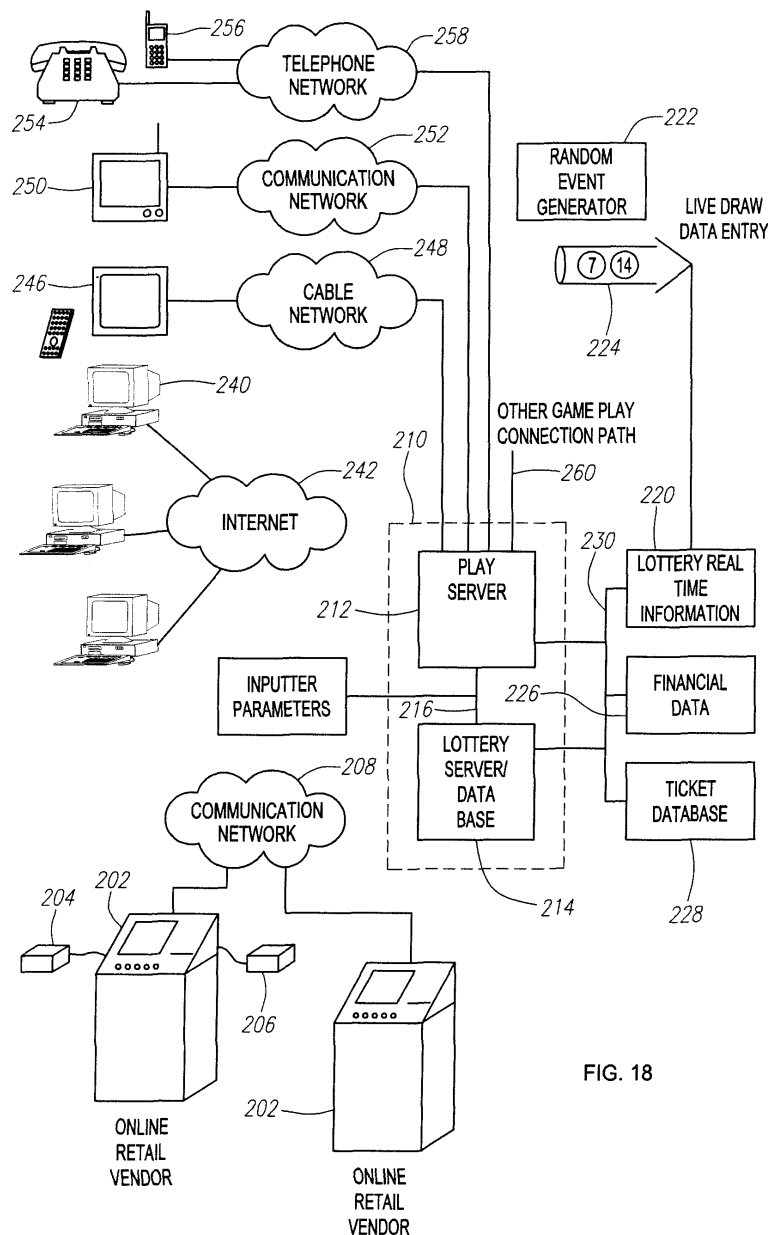


FIG. 18

Figure 18 “is a schematic and block diagram of one version of the system for implementing game play.” *Id.* at 30:10–12. The system includes, *inter alia*, processing system 210 that may include play server 212 and lottery server 214. *Id.* at 30:31–34. Play server 212 may be, for example, a web server for hosting the website accessed by the player, and lottery server 214 may be a separate server or computer which interacts with the various

vendor locations. *Id.* at 30:35–38. Processing system 210 may interface with lottery real time information memory 220, financial data memory 226, and ticket database 228 via bus 230. *Id.* at 30:54–65. The player may engage in electronic game play via computer 240, interactive TV system 246, wireless display enabled device 250, conventional wire line telephone 254, and wireless phone 256. *Id.* at 31:3–9, 31:26–29.

The disclosed system may contain in memory data elements including remote user registration information such as a player’s citizenship information, email address, physical address, local bank account information, and social security number or other national identification number. *Id.* at 35:35–42, Fig. 20D. The system may also contain in memory payment information of the remote user, including the form of compensation, such as cash, airline miles, or further game play. *Id.* at 35:54–56, Fig. 20E. The system may also track data on game play, such as number of plays and user specific play to use “as inputs for a decision engine to optimize the prizing structure for a desired end goal, e.g., maximizing game play and therefore sales of game plays.” *Id.* at 44:55–65.

The system may also contain a prizing system, such as a multilevel prizing system in which, for example, “the user may play a first game, typically for a wager, and if they win, be given the option of playing a prize board or other prizing step,” and a player may be presented “with the opportunity to purchase, such as via the wager, a better prize level, such as a higher guaranteed prize.” *Id.* at 44:9–14, 44:23–26.

C. *Challenged Claims*

Petitioner challenges claims 1, 3–9, 13, 17, 18, 23, 25, 26, 28, and 29 of the ’279 patent. Pet. 1. Of these, claim 1 is independent. Ex. 1001,

45:44–46:25. Claim 1 is illustrative of the claimed subject matter and is reproduced below along with bracketed limitation identifiers referenced in the Petition:

1. A system for dynamically varying game play parameters in an electronic environment, over a communications network between multiple users of the system at multiple locations and a remote location including a play engine, the users utilizing communication devices, the communication devices having input capability and generate an output corresponding to the input, comprising:

[a] a processor,

[b] memory to:

[b.i] store mandated and programmable variable parameters for use in the course of game play,

[b.i.A] wherein, the mandated parameters represent parameters which must be achieved by the system as a whole, and the programmable variable parameters represent parameters characterizing at least one of: a game structure and a prizing structure,

[b.ii] record game play information regarding particular game play events, and

[b.iii] store player's club information, including at least

[b.iii.A] (i) player identification information, and

[b.iii.B] (ii) the amount of player points,

[c] a play engine coupled to the memory and operating with the processor to:

[c.i] implement a first set of programmable variable parameters to provide a first game play experience,

[c.ii] modify one or more programmable variable parameters to provide a second set of programmable variable parameters providing a second game play experience, wherein the first game play experience differs from the second game play experience, and

[c.iii] utilize the first and second programmable variable parameter sets to achieve the mandated parameters through at least the first and second game play experiences,

[d] a decision engine coupled to the memory and operating with the processor to:

[d.i] (i) analyze game play as a function of the recorded information regarding particular game play events, and

[d.ii] (ii) determine the selection of the first or second programmable variable parameter sets utilizing the recorded game play information with predefined criteria including at least one of: a game structure and a prizing structure,

[e] a display system for displaying at least the player club points, and

[f] a system input for receiving player input.

Id.; Pet. 78–79.

D. *Asserted Grounds*

Petitioner asserts that the Challenged Claims are unpatentable based on the following grounds:

Claim(s) Challenged	35 U.S.C. §³	Reference(s)/Basis
1, 3–9, 13, 17, 18, 23, 25, 26, 28, 29	103(a)	Kelly ⁴
1, 3, 5–9, 13, 17, 18, 23, 25, 26, 28, 29	103(a)	Walker ⁵
4	103(a)	Walker, Schneier ⁶

³ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 285–88 (2011), revised 35 U.S.C. §§ 102, 103 effective March 16, 2013. Because the challenged patent has an effective filing date before March 16, 2013, we refer to the pre-AIA version of §§ 102 and 103.

⁴ Ex. 1005, US 8,172,683 B2, issued May 8, 2012, filed March 23, 2006 (“Kelly”). Petitioner refers to Kelly as “Kelly683” and asserts that Kelly qualifies as prior art under 35 U.S.C. §§ 102(a) and 102(e). Pet. viii, 4 n.1.

⁵ Ex. 1006, US 2004/0002369 A1, published January 1, 2004, filed May 1, 2003 (“Walker”). Petitioner asserts that Walker qualifies as prior art under 35 U.S.C. §§ 102(a) and 102(e). Pet. 5 n.2.

⁶ Ex. 1008, US 5,970,143, issued October 19, 1999, filed August 8, 1996 (“Schneier”). Petitioner refers to Schneier as “Schneier143” and asserts that

Pet. 4–5. Petitioner relies on the Declaration of Mr. Dwight Crevelt, dated March 27, 2025, as support for its contentions. Ex. 1003.

III. ANALYSIS

A. *Legal Standards*

A patent claim is unpatentable under 35 U.S.C. § 103(a) if “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) objective evidence of non-obviousness, i.e., secondary considerations. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

In conducting an obviousness analysis, one must determine whether the claimed elements are present in the prior art. *PAR Pharm., Inc. v. TWI Pharms., Inc.*, 773 F.3d 1186, 1194–98 (Fed. Cir. 2014) (citing *Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1164 (Fed. Cir. 2006)). However, a patent claim “is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *KSR*, 550 U.S. at 418. An obviousness determination requires finding “both ‘that a skilled artisan would have been motivated to combine the teachings of the prior art

Schneier qualifies as prior art under 35 U.S.C. §§ 102(a) and 102(e).
Pet. viii, 5 n.3.

references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so.” *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367–68 (Fed. Cir. 2016); *see also KSR*, 550 U.S. at 418. Further, an assertion of obviousness “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.” *KSR*, 550 U.S. at 418; *see also In re NuVasive, Inc.*, 842 F.3d 1376, 1383 (Fed. Cir. 2016) (a finding of a motivation to combine “must be supported by a ‘reasoned explanation’”).

“In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3)); *see also Intelligent Bio-Sys.*, 821 F.3d at 1369. Therefore, to prevail in an *inter partes* review, Petitioner must explain how the proposed combinations of prior art would have rendered the challenged claims unpatentable.

B. *Level of Ordinary Skill in the Art*

We consider the asserted ground of unpatentability in view of the understanding of a person of ordinary skill in the art (“POSITA”). In assessing the level of ordinary skill in the art, various factors may be considered, including the “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (quoting *Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc.*, 807 F.2d 955, 962

(Fed. Cir. 1986)). “[O]ne or more factors may predominate.” *Id.*

There is no evidentiary dispute about the level of ordinary skill in the art. Based on the testimony of Mr. Crevelt, we determine that a person of ordinary skill in the art would have had at least a bachelor’s degree in computer science or computer engineering, with at least three years of experience in game development. Pet. 12 (citing Ex. 1003 ¶¶ 64–67). Additional experience could substitute for less education, and additional education could likewise substitute for less experience. *Id.* We determine that the level of ordinary skill in the art adopted above is consistent with the level of technical understanding and competence reflected in the ’279 patent Specification and the asserted prior art references, based on our review of the record.

Patent Owner states that “[f]or the purposes of this response, Patent Owner does not dispute Petitioners’ proposed level of skill, and under any level of skill a POSITA would not understand the asserted Grounds to raise any unpatentability issue,” and “this POR and supporting declarations apply Petitioner’s proposed level of skill.” PO Resp. 7.

Thus, we adopt Petitioner’s articulation of the level of ordinary skill in the art, which is consistent with the ’279 patent and the asserted prior art, and we apply it in our obviousness analysis below.

C. *Claim Construction*

In an *inter partes* review, claims are construed using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b). 37 C.F.R. § 42.100(b); *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005). This standard includes “construing the claim in accordance with the ordinary and customary meaning of such

claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.” 37 C.F.R. § 42.100(b). “Any prior claim construction determination concerning a term of the claim in a civil action, or a proceeding before the International Trade Commission, that is timely made of record in the *inter partes* review proceeding will be considered.”

Id.

“In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence.”

DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc., 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17). Extrinsic evidence is “less significant than the intrinsic record in determining ‘the legally operative meaning of claim language.’” *Phillips*, 415 F.3d at 1317.

Both parties argue that no construction is necessary. *See* Pet. 14–15; PO Resp. 7.

“The Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.’” *Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)). We determine that no terms require express construction to resolve the parties’ disputes in this case. *See id.*

D. *Prior Art*

Before turning to Petitioner’s asserted grounds of unpatentability, we provide brief summaries of the asserted references.

1. *Walker (Ex. 1006)*

Walker, titled “Method and Apparatus for Modifying a Game Based on Results of Game Plays,” describes a method and apparatus for modifying a game based on results of game plays. Ex. 1006, codes (54), (57). Walker is a U.S. Patent Application filed on May 1, 2003, published on January 1, 2004, that further refers back to a provisional application filed on May 6, 2002. *Id.* at codes (22), (43), (60).

In Walker, a first set of game results obtained over a plurality of game plays is evaluated to determine whether the results satisfy one or more predetermined criteria, such as whether a calculated standard deviation is within a desired standard deviation range. *Id.* at code (57). If the results do not meet the criteria, Walker discloses adjusting one or more parameters of the game such that a second set of results is expected to satisfy the predetermined criteria. *Id.*; *see also id.* ¶¶ 22, 188.

A parameter of a game comprises a rule of the game that has an associated value and affects the result of a game play of the game (e.g., what prize is awarded for a game play of the game). *Id.* ¶ 28. In one example, a game parameter could be adjusted to allow a player a higher number of lives to increase the player’s possibility that a novice or low-skill player will win a prize or achieve a high score. *Id.* Other examples of game parameter variables include parameters that affect the difficult of a game, a number of points awarded for an event achieved, a player’s ability to score points, rules of a game, duration of a game, etc. *Id.* ¶¶ 155–166.

Figure 2, reproduced below, shows an example embodiment of system 200.

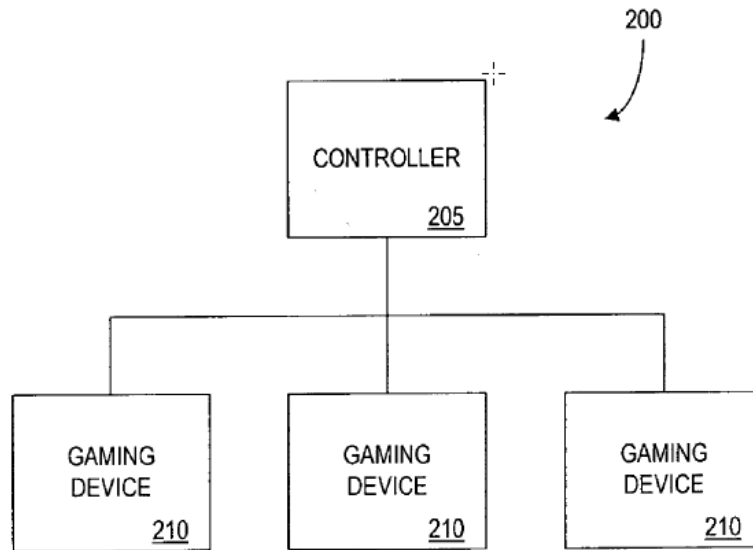


FIG. 2

Figure 2 is a block diagram of system 200 that includes controller 205 in one or two-way communication with gaming devices 210 via a network such as the Internet or another communications link. *Id.* ¶ 51.

Figure 3, reproduced below, shows an example of controller 205. *Id.*

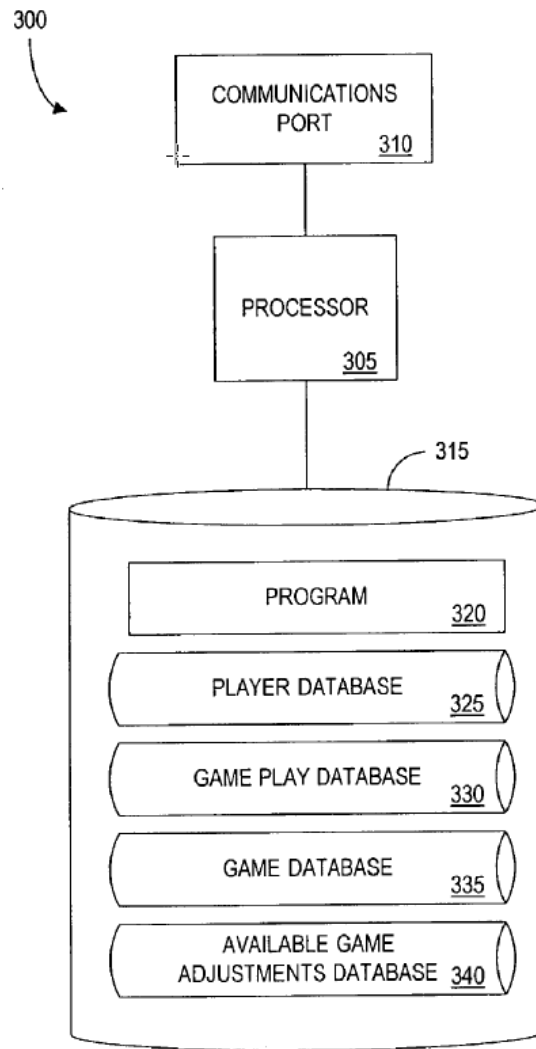


FIG. 3

Figure 3 depicts embodiment 300 of controller 205 comprising processor 305, communications port 310, and memory 315, which stores program 320 for controlling processor 305, player database 325, game play database 330, game database 335, and game adjustments database 340. *Id.* ¶¶ 64–65, 67. Controller 205/300 may comprise a server computer operable to communication with client devices, i.e., gaming devices 210,

where controller 300 is operative to manage system 200 and execute the methods of the invention. *Id.* ¶ 62.

Walker discloses that exemplary methods of accepting payment by a payment system of gaming device 400 include: (1) “receiving hard currency” via a coin or bill acceptor; (2) “receiving alternate currency (e.g., a paper cashless gaming voucher, a coupon, a non-negotiable token)” via a bar code reader or other sensing means, and (3) “receiving a payment identifier (e.g., a credit card number, a debit card number, a player tracking card number) and debiting the account identified by the payment identifier. *Id.* ¶ 89. Walker further discloses that payment can be accepted by “determining that a player has performed a value-added activity.” *Id.*; see also *id.* ¶ 197 (describing using “money and other currencies” to pay the entry fee for a game play).

Player database 325 may include fields to house player information, including player identifier 505, player name 510, player contact information 515, financial account identifier 520, and skill level 525. *Id.* ¶ 98, Fig. 5. Game play database 330 records, *inter alia*, result achieved 360 during game play and the difficulty of the game played. *Id.* ¶¶ 110, 116, Fig. 6A. Game database 335 may include desired standard deviation 706 for a game and calculated standard deviation 712 of scores calculated at the last evaluation. *Id.* ¶ 141, Fig. 7A. Finally, game adjustments database 340 includes, *inter alia*, available adjustment 840 for a particular game and anticipated change in standard deviation 806 of results of game plays if the adjustment is made. *Id.* ¶ 177, Fig. 8. This variety of possible adjustments may be made by controller 205 to a particular game when, for example, controller 205 determines that one or more

predetermined criteria associated with the particular game has not been satisfied by a set of results for the game. *Id.* ¶ 178.

2. *Schneier (Ex. 1008)*

Schneier, titled “Remote-Auditing of Computer Generated Outcomes, Authenticated Billing and Access Control, and Software Metering System Using Cryptographic and Other Protocols,” relates generally to authentication of computer-generated game or test results, and issued on October 19, 1999. Ex. 1008, codes (45), (54), 1:13–14. Schneier discloses, among other things, “a system for enabling geographically dispersed tournaments for computer generated games in which players can participate from virtually any location where they have access to a game computer (e.g., at home).” *Id.* at 4:49–53. According to Schneier, an “Interactive Voice Response Unit (“IVRU”)” may be “associated with a telephone network and coupled to the central computer” using a “standard interface for access from a plurality of telephones,” thereby enabling “players to enroll in tournaments and/or to submit the outcomes of the games to the central computer” for certification. *Id.* at 11:34–40; Fig. 1A. Schneier also discloses that game credits can be earned during game play, and that players can use credits during game play to purchase items. *Id.* at 63:8–29, 63:37–38.

3. *Kelly (Ex. 1005)*

Kelly discloses a prize redemption system and method for use with one or more game apparatuses. Ex. 1005, 4:12–13. Players may win “prize credits” by playing a game on the game apparatus, preferably in exchange for monetary input, and may then select a prize from a prize menu offered on the game apparatus. *Id.* at 4:14–16, 4:24–27. The number of prize credits

are provided to the player based on an outcome of the game and optionally accumulated from previous games. *Id.* at 4:29–31.

The operator can provide cost and prize data and a desired level of profitability, and prize credit costs for prizes are automatically determined. *Id.* at 4:17–20; 5:5–19. For instance, the operator has the ability to adjust prizes and determine desired prize costs and win ratios. *Id.* at 5:4–5. The prize cost is determined in accordance with the operator’s desired amount of payout, which may include a global payout percentage value that is the operator’s desired percentage of the monetary income earned by the game apparatus that the operator wishes to provide back to players in the form of the prizes won using prize credits. *Id.* at 5:22–28. “An operator need only input desired prizes and a desired percentage of income that is to be paid back to players, and the system can automatically determine prize credit costs and win ratios for the entered prizes, which achieve the desired profitability of the game apparatus.” *Id.* at 5:58–62.

Figure 1 of Kelly is reproduced below.

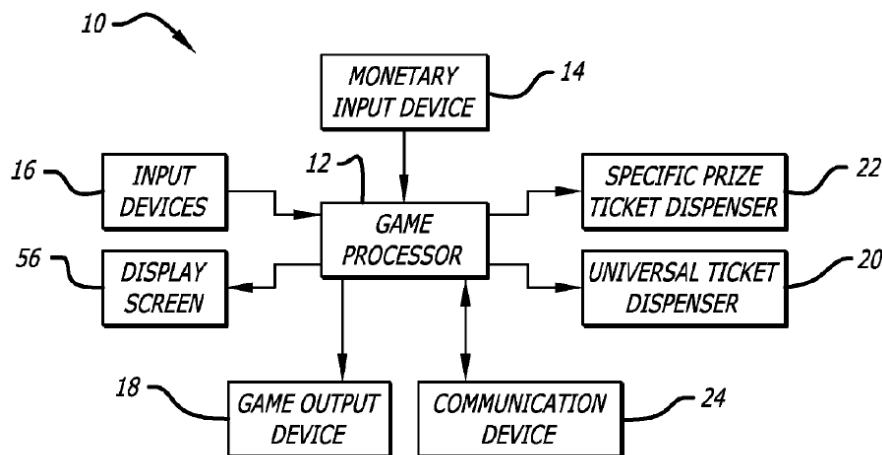


FIG. 1

Figure 1 is a diagrammatic illustration of a game apparatus. *Id.* at 7:20. Figure 1 shows that game unit 10 includes game processor 12, monetary input device 14, player input device(s) 16, game output device(s) 18, universal ticket dispenser 20, specific prize ticket dispenser 22, and communication device 24. *Id.* at 9:10–14. Game processor 12 implements (e.g., controls, influences, coordinates, monitors, calculates, and the like) the functions of game unit 10 during a game process and includes several input and output functions. *Id.* at 9:15–18. Game processor 12 controls the game apparatus by receiving inputs from a player, from other game apparatuses, from a server, from a progressive bonus apparatus, and from other sources. *Id.* at 9:18–22. Game processor 12 also controls output signals to update the game process when appropriate. *Id.* at 9:22–23.

In addition, game processor 12 controls a redemption system by calculating when prizes are awarded, calculating and updating prize lists and prize costs, and other functions. *Id.* at 9:23–27. Game processor 12 preferably includes a digital microprocessor or a similar controller device, and other electronic components, which are described in further detail with respect to FIG. 1a. *Id.* at 9:27–30.

Figure 1a is reproduced below.

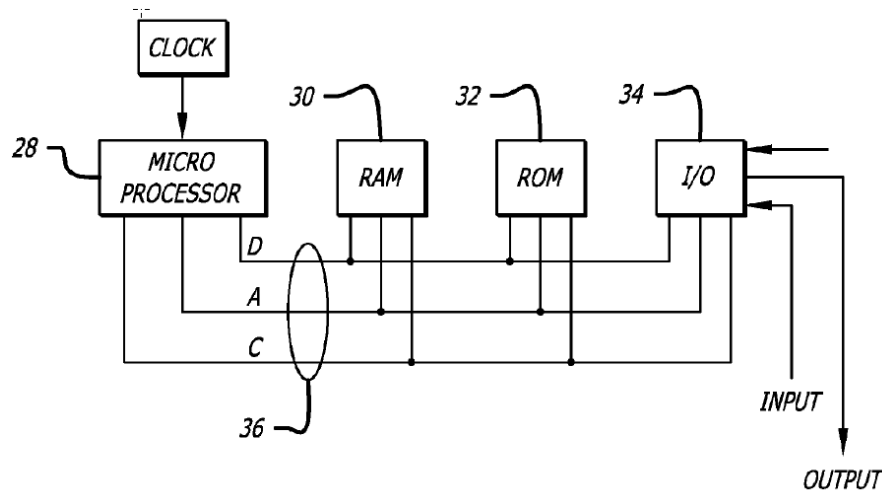


FIG. 1a

Figure 1a is a block diagram of a preferred game processor 12 of Figure 1. *Id.* at 15:34–35. Game processor 12 receives signals and commands from the player input devices 16 and translates/interprets those signals and commands so that the game process can be updated. *Id.* at 15:35–38. Game processor 12 preferably includes a microprocessor 28, random access memory (RAM) 30, read only memory (ROM) 32, and input/output (I/O) 34. *Id.* at 15:38–40. Besides the components of game processor 12, the control system can include operator-configurable controls to provide selectable game functions such as the amount the score is incremented for certain player actions or commands, the amount of prize credits awarded based on the score, the speed and/or difficulty of game play, the conditions required to add to the game score and/or receive universal or specific prize tickets, the conditions required for a player to win a progressive bonus award or enter a tournament, and the like. *Id.* at 16:13–21. These factors can affect the difficulty of the game and the amount of tickets/vouchers received by players. *Id.* at 16:21–23.

Figure 4 is shown below.

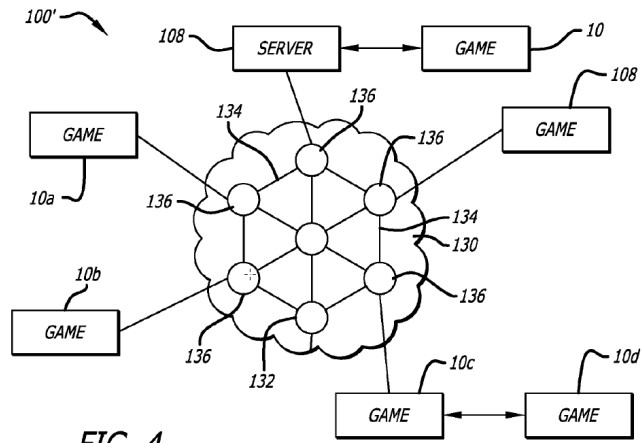


Figure 4 shows networked game system 100 that includes a wide-area network, such as the Internet 130, and game units 10 coupled to the Internet 130 with a suitable communication device. *Id.* at 21:21–24, 21:41–43.

Figure 9a is shown below.

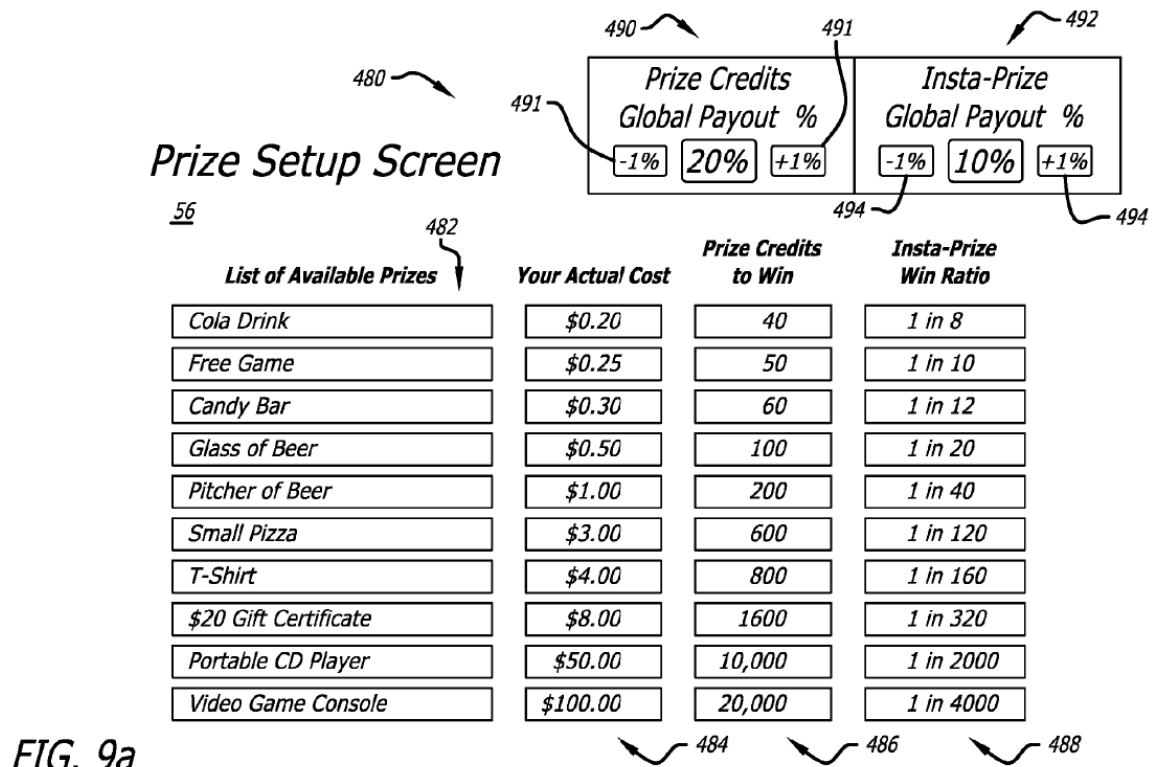


Figure 9a is a diagram of an example of prize table 480 for use with the present invention that is displayed to the operator. *Id.* at 34:64–66. Prize table 480 includes list of available prizes 482; actual cost 484 of each prize in list 482; prize value 486 for each prize in list 482 in terms of prize credits or tickets; specific prize win percentage 488 for each prize in list 482, prize credit global payout percentage 490; and specific prize win percentage 492. *Id.* at 35:9–14. The operator can use this interface to adjust prize characteristics for that game unit and any linked game units. *Id.* at 35:1–2.

E. *Obviousness of Claims 1, 3, 5-9, 13, 17, 18, 23, 25, 26, 28, and 29 Over Walker*

Petitioner contends that claims 1, 3, 5–9, 13, 17, 18, 23, 25, 26, 28, and 29 of the '279 patent are unpatentable under 35 U.S.C. § 103(a) as obvious over Walker. Pet. 42–72. Patent Owner opposes. PO Resp. 18–59. Patent Owner's arguments focus only on the prior art status of Walker. *Id.*

1. *Prior Art Status of Walker*

a) *Overview*

Petitioner asserts that Walker “is §§102(a) and (e) prior art.” Pet. 5 n.2. Patent Owner argues that Walker is not prior art to the '279 patent. PO Resp. 18–59.

As noted above, the '279 patent issued July 19, 2022, based on an application filed November 12, 2021, that asserts the benefit of an application filed September 2, 2003. Ex. 1001, codes (22), (45), (54), (60). Petitioner asserts that the Challenged Claims of the '279 patent “are entitled to an effective filing date of no earlier than September 2, 2003,” consistent with the date of the earliest application identified by the '279 patent. *See* Pet. 6.

Walker was filed on May 1, 2003, and refers to a provisional application filed on May 6, 2002, but Walker was not published until January 1, 2004. Ex. 1006, codes (22), (43), (60). Patent Owner argues that, given this publication date, Walker does not qualify as prior art under pre-AIA 35 U.S.C. § 102(a). PO Resp. 18. We agree with Patent Owner that Petitioner fails to show how, under pre-AIA 35 U.S.C. § 102(a), Walker discloses an invention that was described in a printed publication in this country before the invention thereof by the Patent Owner, because Walker was published after the applied priority date of the Challenged Claims of the '279 patent.

We agree with Petitioner that, based on its non-provisional filing, Walker is § 102(e) art on its face. This satisfied Petitioner's initial burden of production. *See Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1379 (Fed. Cir. 2015). To remove Walker as prior art under § 102(e), Patent Owner must show either that it reduced the invention to practice prior to Walker's effective date, or that it invented prior to Walker's effective date. In the case of the latter, Patent Owner must demonstrate conception prior to May 1, 2003, and reasonably continuous diligence throughout the entire critical period, which begins just prior to the Walker's effective date and ends on the date of the invention's actual or constructive reduction to practice. *Id.* at 1380.

Patent Owner offers evidence attempting to show prior contention and reasonable diligence in reduction to practice. *See* PO Resp. 18–59. Petitioner responds by attempting to show that Walker is entitled to the priority date of its provisional application, and that Patent Owner has failed to show that it conceived of the claimed invention before the filing of

Walker's non-provisional application or exercised reasonable diligence in reducing the claimed invention to practice. *See* Reply 2–22.

Patent Owner begins by arguing that Petitioner waived any argument that Walker is entitled to the date of the provisional application. *See* PO Resp. 19. However, as Petitioner persuasively argues this argument is foreclosed by *Dynamic Drinkware*. *See* Reply 3 (citing *Dynamic Drinkware*, 800 F.3d at 1381 (“[I]t was not necessary for Dynamic to prove in its petition that Raymond was entitled to the filing date of its provisional application. Thus, there was no waiver.”)). Thus, we consider initially whether Petitioner has established that Walker is entitled the date of its provisional application.

b) Walker Priority Date

Under *Dynamic Drinkware*, the Petitioner is required to show that “the provisional application provides support for the claims of the patent or published application.” *In re Riggs*, 131 F.4th 1377, 1384 (Fed. Cir. 2025). Thus, Petitioner must show that (1) at least one claim of Walker is supported by its provisional (U.S. Provisional Application No. 60/378,289 (the “’289PROV”) and (2) the specific subject matter relied upon as prior art is supported by the ’289PROV. *Id.*

Petitioner does provide a detailed explanation about how the ’289PROV supports claim 1 of Walker. *See* Reply 5–10. However, as Patent Owner argues, Petitioner fails to show that the ’298PROV provides support for the specific subject matter relied on in Walker. *See* Sur-Reply 3–9. Petitioner only explains how the ’298PROV discloses “predetermined criteria” but does not provide any other explanation for how the other subject matter relied on in Walker is supported by the ’298PROV.

Thus, we find that Petitioner has failed to show that Walker is entitled a priority date before May 1, 2003. *See Riggs*, 131 F.3d at 1384 (noting while “a prior art patent or published application cannot be accorded the benefit of its provisional application’s filing date absent a showing that the provisional application provides support for the claims of the patent or published application,” the challenger must also show that “the specific portions of the patent specification identified and relied on” to demonstrate purported invalidity have written description support).

c) '279 Patent Priority Date

(1) Conception

With the priority date of Walker established, we now turn to Patent Owner’s evidence of conception and reduction to practice. Patent Owner contends that “[e]ach of the challenged claims of the [']279 Patent should be afforded a conception and priority date of at least December 4, 2002.” PO Resp. 20. Patent Owner argues that

The principal inventor of the [']279 Patent, Mr. Randy Katz, shows in his Declaration [“the Katz Declaration”] that he and his co-inventor formed a definite and permanent idea of the complete and operable invention as recited in the challenged claims prior to May 1, 2003, by demonstrating that each element from these claims is described: 1) in the notes kept by Mr. David Murphy, Milestone’s patent attorney, from a patent disclosure discussion held with Mr. Katz and his coinventor on December 4, 2002 (Ex2016); 2) U.S. Patent Application No. 10/123,861 (the “[']861 Application”) (Ex2014), an earlier application filed by the same inventors on April 15, 2002, to which the [']279 Patent relates. *See* Ex1001 at 1:6-16. Ex2017, ¶¶7-24, 41 (pp.19-62).

Id. at 21.

Patent Owner also submits the Declaration of David Murphy (Ex. 2013, “the Murphy Declaration”), Patent Owner’s patent attorney. *Id.* at 22. Patent Owner also provides a declaration of Patent Owner’s expert, John Szeder (“the Szeder Declaration”), which Patent Owner asserts “additionally confirms that a POSITA would have understood that the inventors conceived of each element of the challenged claims by December 4, 2002, which were subsequently constructively reduced to practice by September 2, 2003.” *Id.* (citing Ex. 2012 ¶¶ 86–90). Patent Owner also provides a table mapping this evidence to the limitations of the challenged claims. *Id.* at 23–55.

Petitioner argues that Patent Owner cannot show that the inventors conceived of multiple features by December 4, 2002 (the alleged earlier conception date), including, among others, “programmable variable parameter sets,” “determine the selection of the first or second programmable variable parameter sets utilizing the recorded game play information with predefined criteria including at least one of: a game structure and a prize structure,” and “a display system for displaying at least the player club points.” Reply 12–13.

Petitioner submits that “[c]ritically, [Patent Owner] cannot establish an earlier conception date for a critical feature: ‘mandated parameters.’” *Id.* at 13. Petitioner asserts that the Katz Declaration is insufficient to show conception without corroborating documentary evidence. *Id.* Petitioner further argues that the Katz Declaration does not demonstrate that the named inventors conceived of the full scope of the claimed invention as finally drafted, but only contends conception of the idea of mandated parameters. *Id.* Petitioner submits that Mr. Katz “does not address the claims as a whole,

which require (1) *memory to . . . store mandated parameters*, (2) *utilize the first and second programmable variable parameter sets to achieve the mandated parameters through at least the first and second game play experience*, and (3) *determine the selection of the first or second programmable variable parameter sets utilizing the recorded game play information with predefined criteria including at least one of: a game structure and a prizing structure.*” *Id.* at 13–14 (citing Ex. 2017 ¶¶ 20–24).

Petitioner argues that “nowhere in the Murphy declaration does he testify that the meeting notes from December 4, 2002, or his own personal recollections corroborate an earlier conception date to the missing *mandated parameter.*” *Id.* at 14. Petitioner asserts that “Mr. Murphy testifies only that he understood that the inventors were attempting to add ‘well-known prizing structure for lotteries: GLEPS, or Guaranteed Low-End Prizing Structure,’ into the ‘Internet or SMS,’ and that this would correspond to the later claimed ‘mandated parameters.’” *Id.* (citing Ex. 2013 ¶ 18). Petitioner contends that “[t]his is not enough to show possession of the *mandated parameters* limitations in full.” *Id.*

As for the Szeder Declaration and Mr. Crevelt, Petitioner argues that this provides no independent collaboration. *Id.* at 14–15.

With respect to the ’861 Application, Petitioner notes that Mr. Katz concedes that the ’861 Application does not disclose mandated parameters. Reply 15–18. Petitioner argues that the ’861 Application fails to provide the requisite corroboration to Mr. Katz’s inventor declaration. *Id.* at 18. Thus, Petitioner submits that we should find that “the ’861 Application fails to show written description support or possession of at least ‘mandated parameters’ as recited in limitations 1[b.i], 1[b.i.A], and 1[c.iii].” *Id.*

Finally, Petitioner contends the December 4, 2002, meeting minutes (“Meeting Minutes”) “only set forth a general goal of having GLEPS, or Guaranteed Low-End Prizing Structure, with no details regarding how that would be achieved, like the Lottery.” *Id.* at 18 (citing Ex. 2016, 1). Petitioner asserts that “[a]t best, the Meeting Minutes show a ‘general goal or research plan [Milestone] hopes to pursue’ does not show conception.” *Id.*

In its Sur-Reply, Patent Owner responds that it does not cite the ’861 Application and Meeting Notes each alone for limitations 1[b.i], 1[b.i.A], and 1[c.iii] of claim 1. Sur-Reply 12. Instead, Patent Owner argues that the evidence, when taken together, shows that it conceived of these limitations before the critical date. *Id.* at 12–13. For limitations [1.b.i] and [1.b.i.A], Patent Owner notes the 12/4/02 meeting notes identify numerous examples of mandated parameters that must be achieved by the system as a whole, including a “fair number of low tier prize winners,” “force an even distribution of prizing,” “within every X plays, certain amount of low tier wins,” “guarantee[] the payout,” or increasing the percentage payout of a lottery game. *Id.* at 13 (citing PO Resp. 28–32; Ex. 2016; Ex. 2017 ¶¶ 18–24). Patent Owner also points to Mr. Katz’s declaration, which explains how the references to “GLEPS” and “virtual GLEPS” disclosed mandated parameters, explaining that in a “GLEPS, or Guaranteed Low-End Prizing Structure,” a “certain number of ‘wins,’ typically comprising lower-value prizes, are guaranteed across a given number of plays.” *Id.* (citing Ex. 2017 ¶ 23).

For “memory to record” mandated parameters, Patent Owner submits that “the 861 Application expressly discloses how the inventors’ game

system could store parameters, e.g. in a memory or in a database.” *Id.* at 14 (citing Ex. 2014 ¶¶ 120, 125; PO Resp. 28–31). Patent Owner asserts that “[t]his unambiguously shows that the inventors had a definite and permanent idea of how their system would ‘store’ the mandated parameters disclosed in the meeting notes.” *Id.* Patent Owner contends that “[t]he expert opinion confirming that this is how a POSITA would understand this evidence stands un rebutted.” *Id.* (citing Ex. 2012 ¶¶ 49–54, 87).

Patent Owner argues that “[f]or limitation 1[c.iii] reciting a ‘play engine’ to ‘utilize the first and second programmable variable parameter sets to *achieve the mandated parameters*,’ . . . conception of these limitations is shown in the 12/4/02 meeting notes.” *Id.* (citing PO Resp. 28–32, 37–38). Patent Owner contends that it showed that “the notes from the 12/4/02 meeting reflect that the inventors proposed that their invention could raise the global payout percentage ‘to 75%’ – a mandated parameter – by ‘increas[ing] % of wins by the level 2,’ i.e., a secondary game level – a variable parameter. Ex 2016.” *Id.* (citing PO Resp. 29–30; Ex. 2017 ¶¶ 33–35, 39–40).

The Federal Circuit has explained the following:

In considering whether or not a reference qualifies as prior art under pre-AIA 35 U.S.C. § 102(e), we must consider whether or not “the invention was described in . . . a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent.” A patent owner may antedate an asserted prior art patent by showing conception of the claimed invention prior to the critical date and either actual reduction to practice prior to the critical date or “reasonably continuous diligence” in reducing the invention to practice until its effective filing date.

Medtronic, Inc. v. Teleflex Innovations S.À.R.L., 68 F.4th 1298, 1302–03 (Fed. Cir. 2023) (citing *ATI Techs. v. Iancu*, 920 F.3d 1362, 1369 (Fed. Cir. 2019); *Tyco Healthcare Grp. v. Ethicon Endo-Surgery, Inc.*, 774 F.3d 968, 975 (Fed. Cir. 2014)) (alteration in original). Additionally, “[i]nventor declarations submitted to antedate a reference must be corroborated, and corroboration is governed by a ‘rule of reason’ standard.” *Id.* at 1303 (citing *Perfect Surgical Techs., Inc. v. Olympus Am., Inc.*, 841 F.3d 1004, 1007–09 (Fed. Cir. 2016)).

Thus, to antedate an asserted reference, the patent owner must establish “an earlier conception followed by a diligent reduction to practice.” *Purdue Pharma L.P. v. Boehringer Ingelheim GMBH*, 237 F.3d 1359, 1365 (Fed. Cir. 2001). In addition to providing evidence of conception that encompasses all limitations of the claimed invention, *see Singh v. Brake*, 222 F.3d 1362, 1367 (Fed. Cir. 2000), a patent owner must provide independent corroborating evidence. *Apator Miitor s ApS v. Kamstrup A/S*, 887 F.3d 1293, 1295 (Fed. Cir. 2018) (“It is well established . . . that when a party seeks to prove conception through an inventor’s testimony the party must proffer evidence, ‘in addition to [the inventor’s] own statements and documents,’ corroborating the inventor’s testimony.”) (quoting *Mahurkar v. C.R. Bard, Inc.*, 79 F.3d 1572, 1577 (Fed. Cir. 1996)). Such corroborating evidence must exist “so that a sound determination of the credibility of the inventor’s story may be reached.” *NFC Tech., LLC v. Matal*, 871 F.3d 1367, 1372 (Fed. Cir. 2017); *see also Berges v. Gottstein*, 618 F.2d 771, 776 (CCPA 1980) (“[E]ach corroboration case must be decided on its own facts with a view to deciding whether the evidence as a whole is persuasive.”). Conception requires formation of a “definite and permanent idea of the

complete and operative invention” in the mind of the inventor. *Mahurkar*, 79 F.3d at 1577. “[A]n inventor’s testimony alone is insufficient to prove conception; some corroborating evidence is required. *E.I. du Pont De Nemours & Co. v. Unifrax I LLC*, 921 F.3d 1060, 1075–76 (Fed. Cir. 2019). “An inventor’s testimony on conception can be corroborated through several pieces of evidence, even though no one piece of evidence independently proves conception, and even circumstantial evidence, so long as the evidence supports that the ‘inventor’s story is credible.’” *Id.* at 1076 (quoting *NFC Tech.*, 871 F.3d at 1372). “There is no particular formula” required for corroboration, and instead, a “rule of reason” analysis applies to the evaluation of all pertinent evidence. *Singh*, 317 F.3d at 1341.

We find that Patent Owner has shown that the named inventors conceived of the claimed inventions by December 4, 2002. *See* PO Resp. 20–55. The only limitations that Petitioner disputes Patent Owner’s conception evidence on are limitations 1[b.i], 1[b.i.A], and 1[c.iii]. Reply 15–19. We focus on analysis on those limitations. We find that Patent Owner has shown sufficiently that the named inventors conceived of these limitations. To begin with, we agree with Patent Owner that we should look at the totality of the evidence each piece individually. *See Chen v. Bouchard*, 347 F.3d 1299, 1309–10 (Fed. Cir. 2003). For example, as Mr. Katz testifies and corroborated by the Meeting Notes, Patent Owner had conceived of numerous examples of mandated parameters, including a “fair number of low tier prize winners,” “force an even distribution of prizing,” “within every X plays, certain amount of low tier wins,” “[g]uarantee[] the payout,” or increasing the percentage payout of a lottery game. *See* Ex. 2017 ¶¶ 18–24; Ex. 2016. Similarly, we find that Mr. Katz’s declaration

explains how the references to “GLEPS” and “virtual GLEPS” disclosed mandated parameters, explaining that in a “GLEPS, or Guaranteed Low-End Prizing Structure,” a “certain number of ‘wins,’ typically comprising lower-value prizes, are guaranteed across a given number of plays.” Ex. 2017 ¶ 23. As Patent Owner explains, for “memory to record” mandated parameters, the ’861 Application discloses how the inventors’ game system could “store” parameters, for example, in a memory or in a database. Ex. 2014 ¶¶ 120, 125. We agree that these exhibits together support Mr. Katz’s testimony that the named inventors had a definite and permeant conception of how their system would store the mandated parameters discloses in the Meeting Notes. *See* Ex. 2012 ¶¶ 49–54, 87.

For limitations 1[c.iii]— “play engine” to “utilize the first and second programmable variable parameter sets to achieve the mandated parameters,” we find that Patent Owner sufficiently explained “the notes from the 12/4/02 meeting reflect that the inventors proposed that their invention could raise the global payout percentage ‘to 75%’ – a mandated parameter – by ‘increas[ing] % of wins by the level 2,’ i.e., a secondary game level – a variable parameter.” *See* PO Resp. 28–32, 37, 38; Ex. 2016; Ex. 2017 ¶¶ 23–24, 41–42; Ex. 2012 ¶ 90, 63–64. Indeed, Mr. Crevelt confirmed that that a POSITA would unequivocally regard disclosure of “win rate[s]” and “global payout percentage[s]” as disclosing the claimed “mandated parameters” that are achieved by utilizing variable parameters. *See* Ex. 2020, 15:7–18:4, 19:14–21:16, 24:25–25:15 (global payout percentages), 21:18–24:24 (win rates).

Accordingly, we find that Patent Owner has shown sufficiently that it conceived of the claimed inventions of the ’279 patent no later than

December 4, 2002, as testified by Mr. Katz and corroborated by the Meeting Notes and Mr. Murphy's testimony.

(2) *Reduction to Practice and Reasonable Diligence*

A reduction to practice can be either a constructive reduction to practice, which occurs when a patent application is filed, or an actual reduction to practice. *Cooper v. Goldfarb*, 154 F.3d 1321, 1327 (Fed. Cir. 1998). Filing a United States patent application can be regarded as being a constructive reduction to practice of an invention described therein as of the filing date. *Yasuko Kawai v. Metlesics*, 480 F.2d 880, 886 (CCPA 1973). The written specification in the application is the evidence proving the invention of that which is reduced to practice. *Id.* A constructive reduction to practice, as opposed to an actual reduction to practice, is not proven unless the specification relied upon discloses how to make and use the invention, as required by 35 U.S.C. § 112. *Id.* The diligence requirement implements the principle that, to antedate a reference, the applicant must not only have conceived the invention before the reference date, but must have reasonably continued activity to reduce the invention to practice. *ATI*, 920 F.3d at 1369. To establish “due diligence,”

[a] patent owner need not prove the inventor *continuously* exercised reasonable diligence throughout the critical period; it must show there was *reasonably continuous diligence*.” Under this standard, an inventor is not required to work on reducing his invention to practice every day during the critical period. And periods of inactivity within the critical period do not automatically vanquish a patent owner's claim of reasonable diligence.

Perfect Surgical Techniques, 841 F.3d at 1009 (emphases original; citations omitted). The ultimate purpose of the diligence inquiry “is not to scour the

patent owner's corroborating evidence in search of intervals of time where the patent owner has failed to substantiate some sort of activity.” *Arctic Cat Inc. v. GEP Power Prods., Inc.*, 919 F.3d 1320, 1331 (Fed. Cir. 2019).

Rather, the purpose is “determined by whether, in light of the evidence as a whole, the invention was not abandoned or unreasonably delayed.” *Id.* (internal quotations and citations omitted). The critical period for the evaluation of diligence “begins just prior to the competing reference’s effective date and ends on the date of the invention’s reduction to practice.” *See Perfect Surgical*, 841 F.3d at 1007 (citing *Monsanto Co. v. Mycogen Plant Sci., Inc.*, 261 F.3d 1356, 1363 (Fed. Cir. 2001)).

Here, Patent Owner contends that “the critical period to evaluate diligence is just prior to May 1, 2003 – Walker’s effective date – and September 2, 2003, the filing date of the earliest priority application for the [’]279 Patent.” PO Resp. 56. Patent Owner asserts that “[a]s described in the declarations of Mr. Katz and non-inventor David Murphy, the Milestone inventors worked on the claimed inventions steadily and diligently as they could under the circumstances, from conception through the date the original priority application was filed.” *Id.* at 57 (citing Ex. 2013 ¶¶ 21–25; Ex. 2017 ¶¶ 25, 40. Patent Owner submits that “[a]s discussed in Mr. Katz’s Declaration, shortly after the December 4, 2002, meeting with Milestone’s patent attorney Mr. Murphy, Mr. Katz was diagnosed with acute t-cell lymphoblastic lymphoma, a very rare and aggressive cancer.” *Id.* at 58 (citing Ex. 2017 ¶¶ 25–28). Patent Owner contends that Mr. Katz had an “intensive course of chemotherapy that continued through the ‘critical period’ of May 1, 2003, through September 2, 2003, the date of filing of the original priority application for the [’]279 Patent.” *Id.* at 58 (citing Ex. 2017

¶¶ 29–40). Patent Owner submits that “Mr. Katz’s life-threatening illness, and the intensive therapy regimen he undertook to save his life, naturally slowed progress on constructively reducing the claimed inventions to practice through the creation and filing of the priority application.” *Id.* Patent Owner argues that “[n]evertheless, as Mr. Katz and Mr. Murphy describe in their declarations, Mr. Katz worked with Mr. Murphy as frequently, and for as long, as his health and treatment regime permitted.” *Id.* (citing Ex. 2013 ¶¶ 21–25; Ex. 2017 ¶¶ 29–40). Patent Owner notes that “[t]he first patent application based off of the December 4, 2002, disclosure was filed September 2, 2003, as SN 10/654,585, just as Mr. Katz was completing his initial course of chemotherapy.” *Id.* at 58–59. Patent Owner submits that in view of Mr. Katz’s illness and treatment, this shows reasonably continuous diligence in reduction to practice. *Id.* at 59.

Petitioner argues that Patent Owner puts forward no evidence regarding Mr. Katz’s co-inventor, Mr. Gary Dawson. Reply 20. As for Mr. Murphy’s testimony, Petitioner contends that his testimony conflicts with the billing records submitted. *Id.* at 20–21. Petitioner argues that one of the billing codes identified by Patent Owner relates to “General Counseling,” and not to any specific matter that can be attributed to the ’279 patent. *Id.* at 20. As for the billing code specifically related to the ’279 patent, Petitioner argues that there is only limited work charged to that code in July and September. *Id.* at 21. Petitioner contends that “[t]he actual records provided by Mr. Murphy only show work performed related to the ’279 Patent in July and September 2003—not continuous and systematic diligence by Milestone or its patent attorneys given the gap of several

months from March 1, 2003, and July 1, 2003.”⁷ *Id.* Petitioner asserts that “[t]he statements made in Mr. Murphy’s declaration that directly contradict the billing records are not credible.” *Id.*

We have reviewed the billing records that Patent Owner and we do not agree with Petitioner that the records contradict Mr. Murphy’s testimony. On the contrary, all the events listed in Mr. Murphy’s declaration on pages 10–13 are reflected in entries in the billing records. Moreover, although some of those entries were billed to the “General Counseling” billing codes, the entries and context make the connection of those “General Counseling” entries to the priority application for the ’279 patent. *See, e.g.,* Sur-reply 17 (noting the “General Counseling” entry for the December 4, 2002, meeting). These entries reflect reasonably continuous work on the application during the entire critical period. *See* Ex. 2013 ¶¶ 10–13. Given the unrebutted evidence of Mr. Katz’s serious illness during this period, we find that Patent Owner has shown sufficiently that “the invention was not abandoned or unreasonably delayed.” *See Perfect Surgical*, 841 F.3d at 1009. Thus, we find that Patent Owner has demonstrated that it reduced the invention to practice with reasonable diligence.

d) Summary

In view of the evidence submitted, we find that Patent Owner has shown sufficiently that it conceived of the claimed invention of the ’279 patent by December 4, 2002, and constructively reduced the claimed invention with reasonable diligence by the filing of U.S. patent application

⁷ Petitioner also notes that “there is no billing code 00443773-00099 in any of the tables,” Reply 22, but this appears to be simply a typographical error in Mr. Murphy’s declaration.

S/N 10/654,585, on September 2, 2003. Thus, Patent Owner has shown that Walker is not prior art under 35 U.S.C. § 102(e), because the inventions of the '279 patent were invented before the earliest priority date of Walker.

2. *Claims 1, 3, 5–9, 13, 17, 18, 23, 25, 26, 28, and 29*

Petitioner contends that Walker renders obvious the subject matter of independent claim 1. Pet. 37–54. Petitioner also contends that Walker in combination with Schneier renders obvious the subject matter of dependent claims 3, 5–9, 13, 17, 18, 23, 25, 26, 28, and 29 of the '279 patent. Pet. 54–65. Patent Owner does not dispute Petitioner's contentions with respect to these claims apart from relying on the arguments contesting Walker's status as prior art. *See* PO Resp. 17–48.

Because we find Patent Owner's arguments regarding the prior art status of Walker availing and we find that Walker, which is relied on for most of the limitations of claim 1, is not prior art, we find that Petitioner has not shown by a preponderance of the evidence that claims 1, 3, 5–9, 13, 17, 18, 23, 25, 26, 28, and 29 of the '279 patent would have been obvious over Walker.

F. *Obviousness of Claim 4 Over Walker and Schneier*

Claim 4 depends from claim 3, which in turn depends from claim 1. Ex. 1001, 46:28–34. Petitioner relies on Walker to disclose the limitations of claim 1. *See* Pet. 73–75. Because we have determined that Walker does not qualify as prior art against the '279 patent, we determine that Petitioner has also failed to show by a preponderance of the evidence that claim 4 would have been obvious over the combination of Walker and Scheiner.

G. *Obviousness of Claims 1, 3-9, 13, 17, 18, 23, 25, 26, 28, and 29 Over Kelly*

Petitioner contends that claims 1, 3-9, 13, 17, 18, 23, 25, 26, 28, and 29 of the '279 patent are unpatentable under 35 U.S.C. § 103(a) as obvious over Kelly. Pet. 13–41. Petitioner relies on the testimony of Mr. Crevelt as support for its contentions. Ex. 1003 ¶¶ 94–231. Patent Owner opposes. PO Resp. 7–18.

1. *Claim 1*

Petitioner contends that Kelly renders obvious the subject matter of independent claim 1. Pet. 14–26. With regard to limitations 1[b.iii] and 1[b.iii.B], Petitioner states that Kelly “does not expressly disclose *player’s club information or amount of player points*,” and asserts a person of ordinary skill “would have been motivated and [found it] obvious to implement these features.” Pet. 23 (citing Ex. 1003 ¶ 145). Similarly, with regard to limitation 1[e], Petitioner states that Kelly “does not expressly disclose that the output devices 18 display *at least the player club points*,” and argues that a person of ordinary skill “would have been motivated and found it obvious to implement.” *Id.* at 33 (citing Ex. 1003 ¶ 187).

Patent Owner argues that Kelly fails to disclose limitations 1[b.ii], 1[d.i], 1[d.ii], and 1[c.iii]. PO Resp. 7–17; Sur-Reply 17–25.

[b.ii]: “memory to . . . record game play information regarding particular game play events,”

[d.i] (i) analyze game play as a function of the recorded information regarding particular game play events, and [d.ii] (ii) determine the selection of the first or second programmable variable parameter sets utilizing the recorded game play information with predefined criteria

including at least one of: a game structure and a prizing structure,

Petitioner contends that Kelly discloses limitation 1[b.ii]. Pet. 22 (citing Crevelt ¶¶ 141–143). Petitioner argues that Kelly “discloses storing (*record*) game play information provided by the game processor including information on game play events based on the user input (*game play information regarding particular game play events*). *Id.* (citing Ex. 1005, 10:12–15 (“Each type of user input can provide a particular game command to the game processor 12, and the game processor interprets the commands and influences game states and game events in the game process accordingly.”), 1:44–46, 9:62–66, 46:32–37, 46:49–52).

Petitioner also contends that Kelly also discloses recording which games the user previously played. *Id.* at 23 (citing Ex. 1005 6:24–28 (“receiving an identifier from the game apparatus of a particular user selected from a group of identifiers including: (1) a user identifier relating to the user (i.e., player) of the network gaming and prize redemption system; (2) a game identifier relating to a particular game played by the user of the network gaming system;”); 39:8–15).

Petitioner argues that Kelly discloses limitations 1[d], 1[d.i], and 1[d.ii]. Pet. 29–33. Petitioner argues that Kelly discloses “a process for ‘providing statistical information’ (*a decision engine for performing game analytics on the game play*).” *Id.* at 29 (citing Ex. 1005, 32:27–33).

Petitioner asserts that

This statistical information includes statistics on game play events such as the “number of times the player has played[,]” “the time the player took to play a game, the number of times a player has participated in similar previous tournaments, and the like”. . . , “the number of games played and the number of times

the specific prize goal was hit”. . . , and “the amount of times a particular game is played, the number of times that difference games are played, or by achieving a game-related goal.”

Id. at 29–30 (citing Ex. 1005, 25:23–24, 32:27–33, 40:33–45, 56:49–51).

Petitioner argues that Kelly “discloses that ‘[t]he ‘hit ratio’ is the fraction of games played, on average, in which a specific prize goal is met and thus a specific prize is won.” *Id.* at 30 (citing Ex. 1005, 40:19–21). Petitioner asserts that Kelly “explains that ‘some games may have much different hit ratios than other games depending on the nature of the game action, randomness, and the like, and the difficulty of the specific prize goal’ that ‘normalization factor’ can be used, which ‘indicates how much an individual ratio 488 should be adjusted based on the particular game played.’” *Id.* at 30 (citing Ex. 1005, 40:59–41:9). Petitioner contends that Kelly “explains that while the normalization factor ‘can be estimated initially,’ ‘[a]fter a number of games have been played on a game unit 10, the normalization factor for each game can be based on the actual hit ratio determined for each game.” *Id.* (citing Ex. 1005, 41:30–33). Petitioner argues that “[t]he gaming system of Kelly[] uses this statistical information to optimize the prizing structure for a desired goal.” *Id.* (citing Ex. 1005, 36:63–66).

With respect to limitation 1[d.i.], Petitioner contends that Kelly “discloses *analyz[ing] game play as a function of the recorded information regarding particular game play events* because the game system analyzes game play as a function of difficulty or past wins.” *Id.* at 31. Petitioner asserts that “[w]ith respect to recorded information regarding particular game play events as difficulty, Kelly[] discloses the adjustment of game difficulty to achieve an average payout level of prize credits, which in turn

will achieve the global payout percentage inputted by an operator.” *Id.* (citing Ex. 1003 ¶ 180; Ex. 1005, 38:65–39:7). Petitioner argues that “[w]ith respect to recorded information regarding particular game play events as past wins, Kelly[] discloses tracking past wins to provide an overall prize or to adjust prizes to achieve global payout or win ratios.” *Id.* (citing Ex. 1003 ¶ 181; Ex. 1005, 37:1–10). Petitioner submits that Kelly “discloses that ‘FIG. 6 a illustrates an example display of score and prize credits (shows as ‘tickets’) won by a player after a game is over. . . . A score of higher value is awarded to reflect this necessary higher skill. In the described embodiment, a multiplier is applied to the score to achieve a total score 366.” *Id.* at 31–32 (citing Ex. 1005, 26:59–27:1, 57:27–33). Petitioner contends that “[a] POSITA would have understood that the current game play information and corresponding past wins or difficulty would need to be recorded to determine whether game or prizing structures would need to be adjusted.” *Id.* at 32 (citing Ex. 1003 ¶ 183).

With respect to limitation 1[d.ii], Petitioner contends that Kelly discloses this limitation. *Id.* at 32 (citing Ex. 1003 ¶¶ 184–185). Petitioner submits that Kelly “discloses past wins and difficulty as recorded game play information[,]” and determining “the selection of the game or prizing structure parameter sets by utilizing the difficulty or past wins based on a threshold related to the global payout or win ratios (*with predefined criteria*).” *Id.* Petitioner argues that “[a]s to *game structure*, as discussed in [1.d.i], if the game is too easy or difficult, the difficulty can be adjusted during the course of play.” *Id.* (citing Ex. 1005, 38:55–39:7). Petitioner contends that “[a]s to *prizing structure*, as discussed in [1.d.i], if the global payout or win ratio is too high based on past wins, the prizing structure can

be adjusted to achieve the global payout or win ratio.” *Id.* at 33 (citing Ex. 1005, 37:1–10).

Patent Owner argues that Petitioner has failed to identify any disclosure in Kelly of the ’279 patent’s step of “analyze game play as a function of the recorded information regarding particular game play events,” as recited in limitation 1[d.i]. PO Resp. 10. Patent Owner submits “the plain language of the limitation, including the use of the definite article ‘the,’ makes clear that ‘*the* recorded information regarding particular game play events’ upon which analytics are performed must be those which were recorded in step 1[b.ii], which recites ‘memory to . . . record game play information regarding particular game play events.’” *Id.* at 11. Patent Owner argues that “Petitioner did not identify any of the ‘game play events’ it alleges are analyzed in this step [1[d.i]] – specifically, ‘difficulty or past wins’ – as the data that is recorded in connection with limitation 1[b.ii].” *Id.* (citing Pet. 22-23). Patent Owner submits that “[i]nstead, . . . Petitioners identified only ‘user input[s]’ – e.g., button presses – that are interpreted by the game processor, and a ‘game identifier’ as being the ‘game play events’ stored by the system.” *Id.* at 11–12. (citing Pet. 22–23). Patent Owner argues that “Petitioner never contends that the ‘game play events’ identified for limitation 1[d.i] are those recorded by the system in connection with limitation 1[b.ii],” and “[n]or does Petitioner ever demonstrate . . . that the ‘user inputs or ‘game identifier’ Petitioners alleged in limitation 1[b.ii] are ever ‘analyzed’ as this limitation . . . requires.” *Id.* at 12.

Similarly, with respect to limitation 1[d.ii], Patent Owner argues that “‘difficulty or past wins’ is not the ‘the recorded game play information’ of limitation 1[b.ii]. . . .” *Id.* at 13–14. Patent Owner submits that “[n]owhere

for this limitation 1[d.ii] does Petitioner demonstrate or explain that the ‘user inputs’ or ‘game identifier’ it has identified as the recorded game play events are ‘utilized’ to ‘determine the selection of the first or second programmable variable parameter sets’ as this limitation requires.” *Id.* at 14.

In its Reply, Petitioner argues that “[t]he Petition does not identify user inputs as *game play information* as [Patent Owner] claims.” Reply 23. Petitioner asserts that “[r]ather, the Petition expressly states that the ‘game play information ***provided by the game processor.***” *Id.* at 23 (citing Pet. 22). Petitioner contends that “[t]his includes the ‘games states and game events in the game process’ that ‘the game processor interprets’ from user input that ‘can provide a particular game command to the game processor 12.’” *Id.* at 23–24 (citing Ex. 1005, 10:12–15). Petitioner argues that “[t]his game identifier along with other ‘[p]revious game data can be stored in a storage device local to the game unit 10 or on a separate medium or remote apparatus such as server 108.’” *Id.* at 24 (citing Ex. 1005, 39:14–15 (cited by Pet. 23)). With respect to limitations 1[d.i] and 1[d.ii], Petitioner responds that it has shown how Kelly discloses “previous game data (past wins) and game states and game events (difficulty outcomes determined by user inputs) are analyzed.” *Id.* at 28 (citing Pet. 32).

We find that Petitioner has failed to show by a preponderance of the evidence that Kelly teaches limitations 1[d.i] and 1[d.ii]. As Patent Owner persuasively argues, “the recorded information regarding particular game play events” of limitations 1[d.i] and 1[d.ii] refers to “memory to . . . record game play information regarding particular game play events” in limitation 1[b.ii], but Petitioner does not map “the game play events” identified in limitation 1[b.ii] to limitations 1[d.i] and 1[d.ii]. In its Reply, Petitioner

does not dispute Patent Owner's assertion, but largely reiterates its arguments from the Petition. However, none of these arguments or evidence demonstrates that the "game play events" in limitations 1[d.i] and 1[d.ii] are same the "game play events" that are allegedly stored in limitation 1[b.ii]. Even if we accept Petitioner's contention that it was not identifying button presses or the "game identifier," but rather includes "game states and game events in the game process," Petitioner provides no evidence or even arguments that what it has identified here relates to what it has identified for limitations 1[d.i] and 1[d.ii]. *See* Pet. 29–33 (citing Ex. 1005, 25:23–24, 26:59–27:1, 32:27–33, 37:1–10, 38:66–39:7 40:33–45, 56:49–51, 57:27–33). For these reasons, Petitioner has failed to show by a preponderance of the evidence that Kelly teaches or suggests limitations 1[d.i] and 1[d.ii]. Accordingly, we find that Petitioner has failed to show that claim 1 would have been obvious over Kelly.

2. *Claims 3–9, 13, 17, 18, 23, 25, 26, 28, and 29*

Claims 3–9, 13, 17, 18, 23, 25, 26, 28, and 29 all depend (either directly or indirectly) from claim 1. *See* PO Resp. 16 (explaining that the arguments for independent claim 1 also apply to the dependent claims inherent the deficiencies asserted with respect to the independent claims). We find Patent Owner's arguments availing, as explained above. Accordingly, we find that Petitioner has failed to show by a preponderance of the evidence that claims 3–9, 13, 17, 18, 23, 25, 26, 28, and 29 would have been obvious over Kelly.

IV. CONCLUSION

After considering the evidence and arguments presented in the Petition, we determine that Petitioner has failed to establish by a preponderance of the evidence that the challenged claims of the '279 patent are unpatentable as obvious over Kelly, Walker and the combination of Walker and Schneier.

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 318(a), claims 1, 3–9, 13, 17, 18, 23, 25, 26, 28, and 29 of the '279 patent have not been shown to be unpatentable; and

FURTHER ORDERED that any party seeking judicial review must comply with the notice and service requirements of 37 C.F.R. § 90.2.

In summary;

Claim(s)	35 U.S.C. §	Reference(s)/Basis	Claim(s) Shown Unpatentable	Claim(s) Not shown Unpatentable
1, 3–9, 13, 17, 18, 23, 25, 26, 28, 29	103	Kelly		1, 3–9, 13, 17, 18, 23, 25, 26, 28, 29
1, 3, 5–9, 13, 17, 18, 23, 25, 26, 28, 29	103	Walker, Schneier		1, 3, 5–9, 13, 17, 18, 23, 25, 26, 28, 29
4	103	Walker, Schneier		4
Overall Outcome				1, 3–9, 13, 17, 18, 23, 25, 26, 28, 29

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