

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DRAFTKINGS INC.,
Petitioner,

v.

AG 18, LLC,
Patent Owner.

IPR2022-01448
Patent 10,614,657 B2

Before JOSIAH C. COCKS, GEORGE R. HOSKINS, and
FRANCES L. IPPOLITO, *Administrative Patent Judges*.

IPPOLITO, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining Some Challenged Claims Unpatentable
35 U.S.C. § 318(a)
Denying Petitioner's Motion to Exclude
37 C.F.R. § 42.64

I. INTRODUCTION

Petitioner DraftKings Inc., filed a Petition (Paper 1, “Pet.”) requesting *inter partes* review of claims 1–29 (“the challenged claims”) of U.S. Patent No. 10,614,657 B2 (Ex. 1001, “the ’657 patent”). Patent Owner AG 18, LLC d/b/a Arrow Gaming, filed a Preliminary Response (Paper 10, “Prelim. Resp.”).

After considering the parties’ filings, we instituted *inter partes* review. Paper 12 (“Institution Decision” or “Inst. Dec.”). Subsequently, Patent Owner filed a Patent Owner Response. Paper 19 (“PO Resp.”). Petitioner filed a Reply (Paper 23, “Pet. Reply”), and Patent Owner filed a Sur-reply (Paper 24, “PO Sur-reply”).

Petitioner also filed a Motion to Exclude (Paper 28), Patent Owner opposed (Paper 29); and Petitioner filed a Reply to Patent Owner’s Opposition (Paper 30).

We heard oral argument on December 13, 2023, and a transcript of that argument has been entered into the record. Paper 32(“Tr.”).

We have jurisdiction under 35 U.S.C. § 6(b)(4) and § 318(a). 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 claims 1–29 of the ’657 patent.

We determine Petitioner has shown by a preponderance of the evidence that claims 1–10 and 12–29 are unpatentable. Petitioner has not shown by a preponderance of the evidence that claim 11 is unpatentable.

A. *Related Matters*

The parties indicate that the ’657 patent is the subject of *AG 18, LLC*

v. DraftKings, Inc., Case No. 2-21-cv-15737-KM-JSA (D. N.J.). Pet. 4¹; Paper 3, 1.

There are four related IPR proceedings, challenging patents related to the '657 patent. They are IPR2022-01442 (U.S. Patent No. 10,497,220 B2); IPR2022-01445 (U.S. Patent No. 11,024,131 B2); IPR2022-01446 (U.S. Patent No. 9,978, 205 B2); and IPR2022-01447 (U.S. Patent No. 9,613,498 B2).

B. The '657 patent

The '657 patent “relates to systems and methods for skill-based peer-to-peer gaming.” Ex. 1001, 1:24–25. As an example, Figure 1 of the '657 patent is reproduced below.

¹ Petitioner indicates that Crown Gaming Inc. is also a wholly-owned subsidiary of DraftKings Inc., a Nevada corporation. Pet. 4.

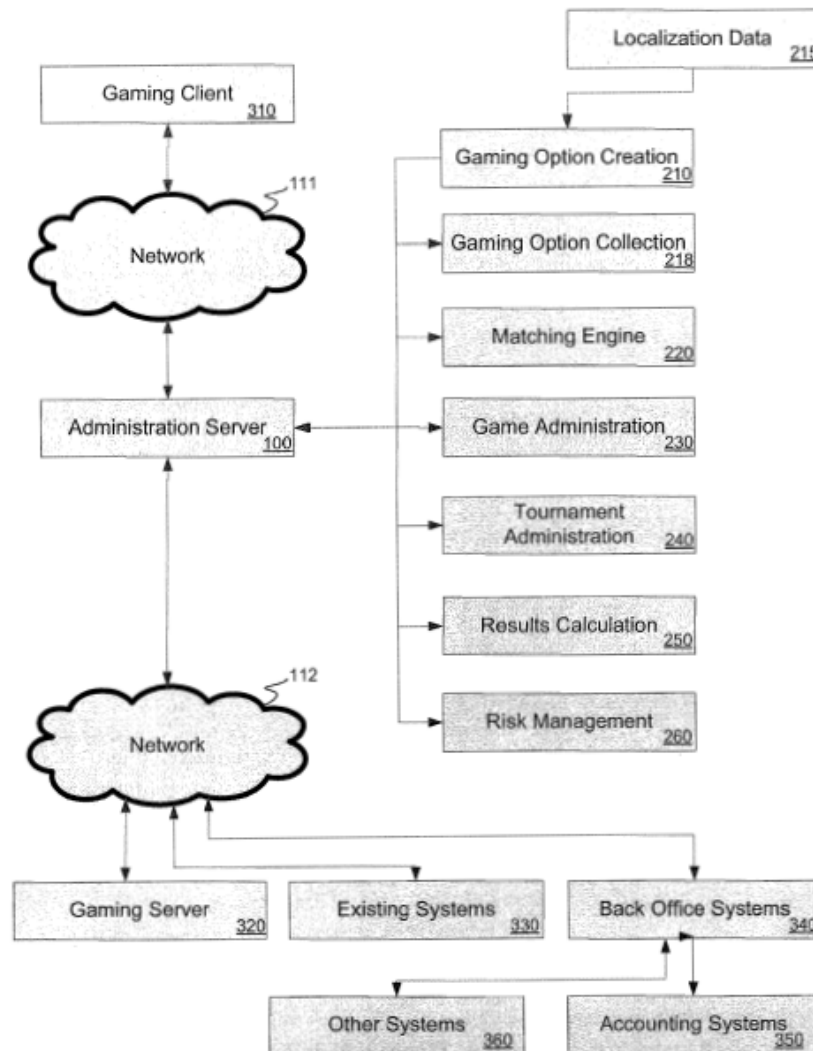


Figure 1

Figure 1 shows a high-level network architecture of a system for peer-to-peer gaming. *Id.* at 3:11–12. As shown, Gaming Client 310 and Administration Server 100 are connected over Network 111. *Id.* at 3:55–56. Gaming Client 310 includes hardware and software for users to participate in peer-to-peer skill-based gaming, such as “Touch Screen Kiosks, Palmtops, PDAs, Wireless Tablets, or Slot/Video Machines.” *Id.* at 3:56–63. Administration Server 100 is connected to Existing Systems 330, Back

Office Systems 340, and Gaming Server 320 via Network 112, in which Existing Systems 330 includes current casino gaming systems or payout systems, Back Office Systems 340 includes Accounting Systems 350 or Other Systems 360, and Gaming Server 320 contains the games that are run by Gaming Client 310. *Id.* at 4:44–51.

The '657 patent further teaches that Administration Server 100 “is an open and flexible gaming platform that can be used for real money wagering in legal gaming jurisdictions like Nevada and Indian reservations” and “can also be dynamically adjusted for localization requirements such as language, currency and legal issues.” *Id.* at 5:29–32, 38–40. Additionally, “Administration Server 100 includes a number of modules, such as: Gaming Option Creation 210, Gaming Option Collection 218, Matching Engine 220, Game Administration 230, Tournament Administration 240, Results Calculation 250, and Risk Management 260.” *Id.* at 5:42–46.

C. Challenged Claims

Petitioner challenges claims 1–29. Claims 1, 9, 21, and 26 are independent. Claims 2–8 depend from independent claim 1, claims 10–20 depend from independent claim 9, claims 22–25 depend from independent

claim 21, and claims 27–29 depend from independent claim 26.

Independent claims 1 and 9 are representative and reproduced below:

1. A method for operating a gaming client, the method comprising:

receiving, from an administration server, a list of player gaming options for a player in a current location,

wherein the list of player gaming options is limited to gaming options allowed in the current location of the player, and

wherein the gaming options include limits on wagering amounts or types of games to prevent the player from unlawful play in the current location of the player;

displaying, on the gaming client, the list of player gaming options;

monitoring an interface on the gaming client to identify a selection of player gaming options selected by the player in response to the list of player gaming options being displayed on the gaming client;

transmitting, to the administrative server, the selection of gaming player option selected by the player to initiate

- a matching of the player with an at least one competitor;
- collecting, via the gaming client, a bet from the player, wherein the bet is within a betting range identified in the selection of player gaming options;
- initiating, on the gaming client, a game for the player, wherein the game is based on the selection of player gaming options; and
- compensating the player with player winnings based on results of the game.

Ex. 1001, 15:58–16:18.

9. A gaming system comprising:

- at least one processor;
- at least one communication interface; and
- a memory containing a plurality of program instructions when executed by one or more processors cause one or more machines to:
 - determine a current location of a gaming client;
 - create a list of player gaming options for a player operating the gaming client at the current location,
 - wherein the list of player gaming options restricts limits on wagers or types of games based on the current location of the gaming client;
 - transfer, using the communication interface, the list of player gaming options to the gaming client;
 - receive, via the communication interface, a selection of player gaming options from the gaming client;
 - initiate a game based on the selection of player gaming options; and

compensate the player with player winnings.

Id. at 16:62–17:13.

D. Alleged Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability:

Claim(s) Challenged	35 U.S.C. §²	Reference(s)/Basis
9–11, 20	102(e)	Bryson ³
9–11, 20	103(a)	Bryson
1–8, 14–16, 21–29	103(a)	Bryson, Amaitis ⁴
12, 13	103(a)	Bryson, Frenkel ⁵
17–19	103(a)	Bryson, Schlottmann ⁶

Pet. 14. In addition to the references listed above, Petitioner relies on the Declaration of Mark C. Nicely (Ex. 1003). *Id.* at 1. Patent Owner relies on the Declaration of Stephen H. Lane, Ph.D. (Exs. 2001, 2005).

² The Leahy-Smith America Invents Act (“AIA”) included revisions to 35 U.S.C. §§ 102 and 103 that became effective in March 2013. The ’657 patent was filed on May 17, 2018, but asserts continuation priority to a parent application filed on June 19, 2009. *See* Ex. 1001, codes (22) and (63). Petitioner applies pre-AIA law (*see* Pet. 31, 36, 38, 39), which Patent Owner has not opposed.

³ U.S. Patent No. 8,460,109 B2, issued June 11, 2013 (“Bryson,” Ex. 1004).

⁴ U.S. Patent Appln. Publ. No. 2007/0054739 A1, published March 8, 2007 (“Amaitis,” Ex. 1005).

⁵ U.S. Patent Appln. Publ. No. 2007/0015584 A1, published January 18, 2007 (“Frenkel,” Ex. 1007).

⁶ U.S. Patent Appln. Publ. No. 2007/0298857 A1, published December 27, 2007 (“Schlottmann,” Ex. 1006).

II. ANALYSIS

A. *Principles of Law*

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 832 (Fed. Cir. 1990).

In *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966), the Supreme Court set out a framework for assessing obviousness under § 103 that requires consideration of four factors: (1) the “level of ordinary skill in the pertinent art,” (2) the “scope and content of the prior art,” (3) the “differences between the prior art and the claims at issue,” and (4) “secondary considerations” of non-obviousness such as “commercial success, long-felt but unsolved needs, failure of others, etc.” *Id.* at 17–18. “While the sequence of these questions might be reordered in any particular case,” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 407 (2007), the Federal Circuit has “repeatedly emphasized that an obviousness inquiry requires examination of all four *Graham* factors and that an obviousness determination can be made only after consideration of each factor.” *Nike, Inc. v. Adidas AG*, 812 F.3d 1326, 1335 (Fed. Cir. 2016).

We note that, with respect to the fourth *Graham* factor, the record in this proceeding does not include any argument or evidence directed to secondary considerations of nonobviousness. The analysis below addresses the first three *Graham* factors.

B. Level of Ordinary Skill in the Art

In determining the level of skill in the art, we consider the type of problems encountered in the art, the prior art solutions to those problems, the rapidity with which innovations are made, the sophistication of the technology, and the educational level of active workers in the field. *Custom Accessories, Inc. v. Jeffrey-Allan Indus. Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986); *Orthopedic Equip. Co. v. U.S.*, 702 F.2d 1005, 1011 (Fed. Cir. 1983).

Petitioner contends that a person of ordinary skill in the art (POSITA) at the time of the invention of the '657 patent “would be a person with a bachelor’s degree in computer engineering, electrical engineering, computer science, applied mathematics, or a similar field, and at least two years of experience in the development of gambling game hardware or software functionality,” but “[a] person with less education but more relevant practical experience may also meet this standard.” Pet. 19 (citing Ex. 1003 ¶ 30).

In the Institution Decision, we observed that Patent Owner had not disputed Petitioner’s proposed level of skill in the art, but, at the time, did offer its own assessment. *See* Inst. Dec. 8. We note that the outcome of this proceeding would not change even were we to adopt the assessment of the level of ordinary skill in the art that was previously offered by Patent Owner.

For purposes of this Decision, we adopt Petitioner’s proposal as reasonable and consistent with the prior art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (the prior art may reflect an appropriate level of skill in the art).

C. Claim Construction

In an *inter partes* review, we construe each 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). Accordingly, our claim construction standard is the same as that of a district court. *See id.* Under the standard applied by district courts, claim terms are generally given their plain and ordinary meaning as would have been understood by a person of ordinary skill in the art at the time of the invention and in the context of the entire patent disclosure. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). “There are only two exceptions to this general rule: 1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution.” *Thorner v. Sony Comput. Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012).

Construing a claim term under 35 U.S.C. § 112 ¶ 6 involves two steps: identifying the claimed function and then determining what structure, if any, disclosed in the specification corresponds to the claimed function. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1351 (Fed. Cir. 2015). To determine whether § 112 ¶ 6 applies to a claim limitation, the essential inquiry is “whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure.” *Id.* at 1348. If the limitation uses the word “means,” “there is a rebuttable presumption that § 112, para. 6 applies; if not, there is a rebuttable presumption that the provision does not apply.” *Diebold Nixdorf, Inc. v. Int’l Trade Comm’n*, 899 F.3d 1291, 1298 (Fed. Cir. 2018).

We construe only those claim terms that require analysis to determine whether to institute *inter partes* review. *See Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (holding that “only those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy”).

1. “monitor” (claim 21)

Independent claim 21 requires “at least one gaming server, wherein the at least one gaming server is configured to . . . monitor the game[.]” Ex. 1001, 18:23–25.

Patent Owner asserts that the term “monitor” should be construed to mean “to continually oversee and keep track of.” PO Resp. 4–6 (citing Ex. 2005 ¶¶ 29–32. Patent Owner contends that the ’657 patent specification teaches that monitoring the game ensures players are not cheating, and this requires checking whether player activity or behaviors demonstrate prohibited activity. *Id.* at 5 (citing Ex. 1001, 7:55–8:5). Patent Owner contends that “[d]etecting player cheating requires that the game be continually overseen and kept track of.” *Id.* Patent Owner further cites to an Oxford English Dictionary’s definition of “monitor” for support. *Id.* (citing Ex. 2007) (“[T]o observe, supervise, or keep under review; to measure or test at intervals, esp. for the purpose of regulation or control.”).

In its Reply, Petitioner counters that Patent Owner’s dictionary evidence does not support its proposed construction because “to measure or test at intervals,” is not continuous. Pet. Reply 11 (citing Ex. 2007, 2).

In its Sur-reply, Patent Owner contends that Petitioner provides no construction or intrinsic evidence. PO Sur-reply. 9. Patent Owner contends

“intervals” require multiple test points and continual overseeing/tracking.
Id.

We begin with the language of the claims. *See Phillips*, 415 F.3d at 1312. Claim 21 states that the “administration server is configured to . . . monitor the game.” Ex. 1001, 18:11–12, 18:25. The claim is silent as to whether the “administration server” monitors the game continuously or not. Thus, we fail to see any support for Patent Owner’s construction in the language of the claims.

We turn next to the specification. *See Phillips*, 415 F.3d at 1315 (noting “the specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’”). To begin with, we note that the passages of the ’657 patent cited by the Patent Owner do not indicate that a game is monitored continuously. For example, in columns 7 and 8 of the Specification, the ’657 patent discloses that

[t]he next software module in FIG. 2 is a Risk Management module 260. This *module could monitor player activity in order to prevent collusion or other prohibited or illegal behavior*. For example, the Risk Management module 260 may use account information in order to determine if some players are violating rules of the system. In one embodiment, *the Risk Management module 260 could monitor playing behaviors of users to detect possible collusion*. In another embodiment, the Risk Management module 260 could determine which gaming options are available to the player. For example, in Solitaire tournaments where all players are given the same starting board, *the module could monitor to see if a certain group of players are consistently playing in the same Solitaire tournaments*. Similarly, in car racing games for more than two players, *the module could monitor to ensure that a certain group of players aren’t consistently competing in the same races in order to work*

together and reach an unfair advantage. In another embodiment, the Risk Management module 260 may eliminate a player if the module detects prohibited behavior. For example, after a game, the risk management module may eliminate a player before giving the player any winnings. In another example, the module may eliminate the player during the game.

Ex. 1001, 7:55–8:11. Here, the '657 patent provides broad examples of how the Risk Management module 260 may (1) use account information to determine collusion, (2) eliminate a player before giving the player any winnings, (3) eliminate a player during the game, or (4) monitor players who consistently play a certain way. *Id.* The Specification does not, however, provide any support for excluding monitoring that is not continuous oversight or tracking. In fact, the '657 patent states that “[n]one of these options are exclusive, a Risk Management module 260 consistent with the present invention could include all or none of these example functions and could include other functions as well.” *Id.* at 8:11–14.

We are also not persuaded otherwise by Patent Owner’s dictionary evidence. Outside of the intrinsic evidence, “extrinsic evidence is generally [viewed] as less reliable than the patent [itself] and its prosecution history in determining how to define claim terms.” *Phillips*, 415 F.3d at 1318. The dictionary definition of “monitor,” provided by Patent Owner, does not support its position. Exhibit 2007, which is an excerpt from Oxford English Dictionary, second edition (1989), defines “monitor” as “to observe, supervise, or keep under review; to measure or test at intervals, esp. for the purpose of regulation or control.” Ex. 2007, 2. We note that this definition does not require continuous overseeing or tracking. Rather, the term is defined as measuring or testing *at intervals*. *Id.* Petitioner’s proffered

extrinsic dictionary evidence is consistent with Patent Owner's. In Exhibit 1070, the definition for "monitor" includes "to watch or check on (a person or thing)" (Ex. 1070, 2) and "to watch, observe, listen to, or check (something) for a special purpose over a period of time" (Ex. 1071, 2). None of these definitions require *continuous* oversight and tracking.

We are also not persuaded by Dr. Lane's testimony in this regard. *See* Ex. 2005 ¶¶ 29–32. Dr. Lane cites to the same intrinsic evidence regarding Risk Management module 260 and extrinsic evidence, Exhibit 2007, discussed above. *Id.* We, however, are not persuaded that this evidence supports Patent Owner's narrower construction or Dr. Lane's testimony in support of the same.

Accordingly, while we may agree with Patent Owner that the plain and ordinary meaning of "monitor" is "to oversee or keep track of," we find that the intrinsic evidence and extrinsic evidence do not require the recited administration server to *continuously* "monitor the game" and decline to adopt Patent Owner's construction that requires *continuous* oversight. Additionally, to the extent that Patent Owner construes "monitor" to mean checking, measuring, or testing more than once (*see* PO Resp. 23), we decline to construe this term to require a specific type or manner of monitoring by way of time period, frequency, etc. The claim language and Specification, as discussed above, do not limit or describe "monitor" this way. Nor does the extrinsic dictionary evidence require a specific number of checks or measures. *See* Ex. 2007. Beyond these clarifications, we find that no other express construction of the term "monitor" is warranted.

2. “*betting range*” (*claims 1 and 26*)

Claim 1 recites “collecting, via the gaming client, a bet from the player, wherein the bet is within a betting range identified in the selection of player gaming options[.]” Ex. 1001, 16:11–13. Claim 26 similarly recites, “a betting range identified in the selection of player gaming options.” *Id.* at 18:63–64.

Patent Owner contends that “[t]he proper construction of ‘betting range’ is ‘both a minimum and a maximum bet.’” PO Resp. 6 (citing Ex. 2005 ¶¶ 33–36). Patent Owner asserts that having both a minimum *and* a maximum bet be a part of the range is supported by the specification. *Id.* (citing Ex. 1001, 11:17–27 (“In another embodiment, a player could select a betting range before selecting a game and/or competitor. For example, a player who is willing to risk less could select a lower **betting range such as \$5-\$50** so they know he or she will find competitors willing to play for lower amounts. Conversely, a player who is only interested in playing for larger amounts could select a higher **betting range such as \$200-500.**”)); PO Sur-reply 7 (“’657 Patent at 11:17–27 provides a clear description regarding what a ‘betting range’ is and provides clear examples with minimums and maximums.”). Patent Owner further contends that Figure 3 of the ’657 patent teaches ranges of \$1/\$2 PL and \$5/\$10 NL Poker. *Id.* at 6–7 (citing Ex. 1001, 8:36–39, 10:34–40).

Petitioner disagrees with Patent Owner’s claim construction. *See* Pet. Reply 7–10. Petitioner contends the “Stakes” column in Figure 3 of the ’657 patent “is showing the ‘small’ and ‘big’ blinds for each” poker game, “while the ‘Type’ column describes the corresponding betting limits as ‘PL’ for ‘Pot-Limit’ and ‘NL’ for ‘No-Limit,’ respectively.” Pet. Reply 20.

Petitioner asserts that in pot-limit games “the maximum bet fluctuates based on the size of the pot,” and in no-limit games there is “no maximum bet,” so Patent Owner’s claim construction “is inapposite with” Figure 3. *Id.*

Turning to the claim language, we find claim 1 does not require the “betting range” to have both a minimum and maximum. Ex. 1001, 16:4–5. Further, although the ’657 patent teaches an embodiment that has lower and higher betting ranges (Ex. 1001, 11:17–27), the ’657 patent specification disclosures cited by Patent Owner and Dr. Lane do not limit the plain and ordinary meaning of the term “range” to require both a minimum bet and a maximum bet. *See* Ex. 1001, Fig. 3, 8:36–39, 10:34–40, 11:17–27. We must be careful not to read a particular embodiment appearing in the specification into the claim if the claim language is broader than the embodiment. *See Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1117 (Fed. Cir. 2004) (“particular embodiments appearing in the written description will not be used to limit claim language that has broader effect”); *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993) (“[L]imitations are not to be read into the claims from the specification.”). Indeed, the ’657 patent specification contradicts Patent Owner’s claim construction, in stating that “*a betting range could be single value* rather than a range of values (e.g., players willing to bet \$10 . . .).” Ex. 1001, 11:25–28.

We find the intrinsic evidence is unambiguous that “betting range” does not require a minimum bet and a maximum bet as Patent Owner proposes. We decline to adopt Patent Owner’s construction. Based on the complete record, we further find that no other express construction of “betting range” is necessary.

3. “*compensating the player with no monetary winnings*”
(claim 20) “*compensating the player with non-monetary
winnings*” (claim 28)

Claim 20 depends from independent claim 9, and further recites “wherein the limits on wagers changes wagering to non-monetary based wagering and compensating the player with the player winnings is compensating the player with no monetary winnings.” Ex. 1001, 17:64–67.

Claim 28 depends from independent claim 26, and further recites “wherein the limits on wagering amounts changes the wagering to non-monetary based wagering and compensating the player with the player winnings is compensating the player with non-monetary winnings.” Ex. 1001, 19:8–12.

Patent Owner treats both dependent claims as reciting compensating the player with *non-monetary winnings* and addresses these limitations together even though claim 20 recites *no monetary winnings*. See PO Resp. 14–20. Petitioner likewise presents the same arguments and evidence regarding construction of both claims. Based on the complete record, we discern that the construction of these limitations may be treated the same for the purposes of this Decision.

To start, Patent Owner takes the position that “compensating the player with no monetary winnings” requires crediting a player’s non-monetary account. Patent Owner asserts that the ’657 patent discloses the accounting needed to compensate player winnings by compensating with tokens or crediting winnings to a non-monetary account. PO Resp. 16–17. Specifically, Patent Owner quotes that “[w]innings could be in many forms, including, but not limited to: points, credits, or hard currency” and that the

“Results Calculation module 250 and the Payout Determination module 290 work together to tabulate the results of a game or set of games and pay out any winnings due to a player.” *Id.* at 15 (citing Ex. 1001, 7:43–45, 7:51–54). Patent Owner further quotes the ’657 patent’s disclosure that “[o]nce the amount of winnings is calculated, the system initiates payment 1640. In order to effect payment, the system may compensate a player with tokens, a ‘Ticket-Out,’ real money, or crediting the player’s account.” *Id.* at 16 (citing Ex. 1001, 13:1–17; Ex. 2005 ¶¶ 127–130).

In its Reply, Petitioner addresses Patent Owner’s construction. Petitioner contends that “nothing in Claim 20 requires providing any compensation (whether monetary or non-monetary), much less to a special non-monetary account.” Pet. Reply 2–3. Petitioner further asserts that

[t]he only required relationship between the No Monetary Compensation and Non-Monetary Wagering limitations is that the “gaming system” of Claim 9 must be configured to perform both—that is, to (1) create a list of games restricted to nonmonetary based wagering when the current location restricts monetary gambling, and (2) separately compensate a player according to the No Monetary Compensation limitation. There is no claim requirement to compensate the player when monetary gambling is restricted or that compensation be made to a “non-monetary account.”

Id.

First, we find that the express claim language does not recite a specific method of compensation that would, for example, require compensation by crediting a player’s non-monetary account. Second, Patent Owner’s citations to the Specification are not persuasive. The ’657 patent teaches that “[w]innings could be in many forms, including, but not limited to: points, credits, or hard currency” and that the “Results Calculation

module 250 and the Payout Determination module 290 work together to tabulate the results of a game or set of games and pay out any winnings due to a player.” Ex. 1001, 7:43–45, 7:51–54. Here, the ’657 patent sets forth examples of winnings and teaches that modules may determine the payout of winnings. The disclosure does not, however, dictate that compensation must occur by crediting or changing a player’s account balance. *See id.*

Likewise, the ’657 patent discloses that “[o]nce the amount of winnings is calculated, the system initiates payment 1640. In order to effect payment, the system may compensate a player with tokens, a ‘Ticket-Out,’ real money, or crediting the player’s account.” Ex. 1001, 13:1–17. The ’657 patent describes “crediting the player’s account” as one alternative, non-limiting, way to compensate the player. The system may also compensate with tokens or real money, in which case, the ’657 patent does not expressly describe those methods to affect a player’s account.

Dr. Lane’s testimony in paragraphs 125–131 largely matches the arguments and evidence presented by Patent Owner in its construction of this claim phrase. Dr. Lane further testifies claim 20 requires that “a player is compensated in some manner after they win regardless of whether the betting involved monetary or nonmonetary wagers, which also requires some type of metric and/or scoring mechanism to evaluate their performance (i.e. winning conditions).” Ex. 2005 ¶ 127. We agree that claim 20 requires compensation, specifically by way of no monetary winnings. Nonetheless, the intrinsic evidence, e.g., claim language and Specification, does not support the notion that the compensation must affect a player’s account or be recorded in a balance. *See* Ex. 2005 ¶ 130. For example, in column 8, lines 18 through 27 of the ’657 patent, the Specification explains that accounting

may be handled by “debiting and crediting a player’s account.” Ex. 1001, 8:18–27. But, when describing compensation, the ’657 patent provides alternatives where “the system may compensate a player with tokens, a ‘Ticket-Out,’ real money, *or crediting the player’s account.*” *Id.* at 13:1–17 (emphasis added). Thus, the Specification itself does not limit compensation to accounting and crediting a player’s balance.

Accordingly, for these reasons, we do not adopt Patent Owner’s narrow construction that seeks to limit the broader claim language to a specific example in the ’657 patent.

Aside from this clarification, we find that no other express construction of the term “compensating the player with no monetary winnings” or “compensating the player with non-monetary winnings” is warranted.

4. “*tournament administration module*” (claims 17–19)

Claim 17 depends from claim 9 and further recites “a tournament administration module to manage tournament play.” Ex. 1001, 17:55–57.

Claim 18 depends from claim 17 and further recites “wherein the tournament administration module oversees a delay tournament where players are trying to get a highest score.” Ex. 1001, 17:58–60.

Claim 19 depends from claim 18 and further recites “[t]he gaming system of claim 18, wherein the delay tournament automatically ends after a period of time has expired.” Ex. 1001, 17:61–63.

Petitioner treats “tournament administration module” as subject to § 112 ¶ 6. Pet. 19–20. Petitioner construes the term “tournament administration module” recited in claim 17 as a server that performs the function of “manag[ing] tournament play” and that the same term in claim

18 is the server of claim 17 that additionally “oversee[s] a delay tournament where the players are trying to get a highest score.” *Id.* at 19–21. Claim 19 depends from claim 18, and recites additional features of the delay tournament. Additionally, Petitioner provides the following table for the recited “tournament administration module”:

Claim	Limitation	Claimed Function	Function Described in Specification
17	“tournament administration module”	manage tournament play	EX[1001] 5:53-54, 13:30-32
18	“tournament administration module”	oversee a delay tournament where the players are trying to get a highest score	EX[1001] 5:53-54, 13:30-32, 14:44-45

Pet. 20. Petitioner refers to Figure 1 in the ’657 patent as showing that the administration server performs each of the functionalities shown in the figure. *Id.* at 21 (citing Ex. 1001, Fig. 1; Ex. 1003 ¶ 116). Petitioner further asserts that a server performs each of the module’s functionalities because the ’657 patent teaches that the “tournament administration module” is within the administration server. Pet. 21 (citing Ex. 1003 ¶ 116; Ex. 1001, Fig. 1). The Petition relies on Mr. Nicely’s testimony, which provides, among other things, that

pursuant to § 112 ¶ 6, the foregoing structure of each claimed “module” *must include an algorithm that performs the corresponding function described in the specification of the ’657 Patent . . .* I therefore provide the claim chart below identifying the portions of the specification of the ’657 Patent that describe the claimed functions of each recited “module”:

Claim	Limitation	Claimed Function	Function Described in Specification
17	"tournament administration module"	manage tournament play	EX[1001] 5:53-54, 13:30-32
18	"tournament administration module"	oversee a delay tournament where the players are trying to get a highest score	EX[1001] 5:53-54, 13:30-32, 14:44-45

Ex. 1003 ¶ 117 (emphasis added).

In the Preliminary Response, Patent Owner argued that Petitioner’s proposed construction fails to comply with 37 C.F.R. §§ 42.104(b)(3), 42.100(b). Prelim. Resp. 45. Patent Owner further argued, among other things, that the Petition identifies a generic server and repeats the recited language in claims 17 and 18 without reference to any particular algorithm. *See id.* at 46–53.

In the Institution Decision, we determined the Petition satisfies our requirements of Rules 100(b) and 104(b)(3) because the Petition provides a proposed construction of “tournament administration module” and explains that a server performs the claimed functions via algorithms. Inst. Dec. 10–14; Pet. 19–21. More specifically, we noted that Petitioner’s proposed construction was supported by citation to Mr. Nicely’s testimony and to the Specification. Inst. Dec. 13–14 (citing Ex. 1001, 4:14–31, 13:28–15:30, Fig. 1; Ex. 1003 ¶¶ 115–117). We further invited the parties to develop the record on any claim construction disputes after institution. *Id.* at 14.

After institution, Patent Owner maintains that the “Petitioner does not specifically identify what structure is associated with each means limitation, and generally recites ‘general purpose computers executing software.’” PO

Resp. 25 (citing Pet. 22–23). Patent Owner acknowledges that Mr. Nicely testifies that the corresponding structure includes the administrative server, but maintains that Mr. Nicely’s charts do not provide the corresponding structure. *Id.* at 25–26 (citing Ex. 1003 ¶ 117); *see also* PO Sur-reply 11 (“Petitioner’s table at pages 20-22 of the Petition did not in fact identify corresponding structure, let alone ‘distinct algorithmic corresponding structure’ as Petitioner now asserts. The right-most column was titled ‘Function Described in Specification.’ Neither that column heading nor anything else in the Petition provided any clarity that the citations in the right-most column are the ‘corresponding structure’ or an algorithm.”). Patent Owner further argues that Mr. Nicely also suggests that there may not be sufficient algorithm disclosure for any of the module terms. *Id.* at 26. In this way, Patent Owner contends that Petitioner and Mr. Nicely have been “deliberately opaque about the corresponding structure.” *Id.* at 25. Patent Owner reiterates that Petitioner violated 37 C.F.R. § 42.104(b)(3) by failing to clearly identify the corresponding structure for the module terms. *Id.* at 26 n.4.

Patent Owner contends that Petitioner’s constructions are defective for the same reasons as in *Microsoft Corp. v. Improved Search LLC*, IPR2017–01613, Paper 8 (PTAB Dec. 26, 2017). That is, the Petition failed to satisfy Rule 104(b)(3) “where it proposed corresponding structure of simply ‘server or equivalents.’” PO Resp. 27.

Patent Owner further contends that Petitioner’s construction is deficient because “[a] server is a general-purpose computer, and it is well-established that a general-purpose computer by itself is not sufficient corresponding structure for a computer implemented means term.” *Id.* at 27

(citing *Qualcomm Inc. v. Intel Corp.*, 6 F.4th 1256, 1266 (Fed. Cir. 2021); *WMS Gaming, Inc. v. Int’l Game Tech.*, 184 F.3d 1339, 1349 (Fed. Cir. 1999)). Patent Owner further contends that

Petitioner, by proposing facially defective means-plus-function constructions that fail to identify adequate corresponding structure, is improperly pushing the Board to conduct a defective invalidity analysis. If Petitioner’s proposed constructions are correct and the only corresponding structure is a server, then [the] “module” terms may render claims 17-18 indefinite.

Id. at 29; *see also* PO Sur-reply 12 (“[I]f in fact there is no algorithmic structure for any of the module terms, those terms would render the challenged claims indefinite and prevent a proper comparison of the claims to the prior art as Patent Owner explained.”), 13 (“[S]imply disclosing a computer as the structure designated to perform a particular function does not limit the scope of the claim to ‘the corresponding structure.’”). Patent Owner further cites to *Cochlear Bone Anchored Sols. AB v. Oticon Med. AB*, 958 F.3d 1348, 1359 (Fed. Cir. 2020) for the notion that it is impossible for the panel to conduct a prior-art analysis if the specification fails to recite a corresponding structure. PO Resp. 28.

In Petitioner’s Reply, Petitioner counters that the Petition: (1) asserts the ’657 patent discloses the “tournament administration module” is part of an “administration server”; and (2) identifies distinct corresponding algorithmic structure, *to the extent it exists*, for each means-plus-function term as a computer or server implementing the functionality disclosed in the specification as identified in each corresponding row of the table on pages 20–22 of the Petition. Pet. Reply 13 (citing Pet. 20–22; Ex. 1003 ¶¶ 116–

123). Petitioner further asserts that Patent Owner has not construed or meaningfully rebutted Petitioner's proposed constructions of these terms.

Initially, we observe that Patent Owner does not contest Petitioner's application of 35 U.S.C. § 112 ¶ 6 to "tournament administration module." *See generally* PO Resp. Per our reviewing court, "module" is a well-known nonce word that can operate as a substitute for "means" in the context of § 112 ¶ 6. *Williamson*, 792 F.3d at 1350–51. Here, the word "module" does not provide any indication of structure. Further, the prefix "tournament administration" does not impart structure into the term "module." These words do not describe a sufficiently definite structure. Moreover, the parties have not directed us to anything in the specification or prosecution history that leads us to construe that "tournament administration" as the name of a sufficiently definite structure. Additionally, looking to the rest of the claim language, claim 17 further recites that the "tournament administration module" "manage[s] tournament play." Ex. 1001, 17:55–57. Claim 18 depends from claim 17 and further recites "wherein the tournament administration module oversees a delay tournament where players are trying to get a highest score." *Id.* at 17:58–60. The additional features recited also do not describe sufficiently definite structure. As such, we agree with the parties that "tournament administration module" invokes the application of § 112 ¶ 6.

Next, it bears mentioning that the parties' construction and treatment of "tournament administration module" in this particular proceeding is not a model of clarity. Patent Owner does not propose an alternative construction and does not fully address the citations provided in the Institution Decision that pertain to Petitioner's construction. *See* Inst. Dec. 14 (citing Ex. 1001,

4:14–31, 13:28–15:30, Fig. 1; Ex. 1003 ¶¶ 115–117). Indeed, during cross-examination of Patent Owner’s declarant, Dr. Stephen H. Lane, Dr. Lane confirmed that the testimony provided in his declaration (Ex. 2001) does not address the construction of “tournament administration module.” Ex. 1068, 110:6–23; *see* Ex. 2001.

On the other hand, the Petition does provide a proposed construction along with citations to the Specification. Pet. 19–21. However, Petitioner’s charts on pages 19–21 of the Petition, though understandable, could have been phrased better. Inst. Dec. 11. Nonetheless, in considering the complete record, we understand that Petitioner, in the Petition (*see* Pet. 19–21), reasonably directs our attention to contents of the Specification in connection with “tournament administration module,” that are recognizable as identifying some structural components that a skilled artisan would understand to correspond to an algorithm that “keeps track of multiple games in a tournament” and oversees tournaments. Pet. 20 (citing Ex. 1001, 5:53–54, 13:30–32). Mr. Nicely further testifies that

[t]he ’657 Patent acknowledges that “the[...] modules are described according to their function.” EX[1001] 6:38-40. And the ’657 Patent describes each of these modules (i.e., the “tournament administration module,” “gaming option collection module,” “matching engine module,” “game administration module,” “results calculation module,” “gaming option creation module,” “risk management module”) except for one (i.e., the “payment initiation module”) as being provided on an “administration server 100[.]”

Ex. 1003 ¶ 116 (citing Ex. 1001, 4:14–31, Fig. 1) (emphasis added, second alteration in original). Additionally, Mr. Nicely testifies that

pursuant to § 112 ¶ 6, the foregoing structure of each claimed “module” *must include an algorithm that performs the corresponding function described in the specification of the ‘657 Patent . . .* I therefore provide the claim chart below identifying the portions of the specification of the ‘657 Patent that describe the claimed functions of each recited “module”:

Claim	Limitation	Claimed Function	Function Described in Specification
17	"tournament administration module"	manage tournament play	EX[1001] 5:53-54, 13:30-32
18	"tournament administration module"	oversee a delay tournament where the players are trying to get a highest score	EX[1001] 5:53-54, 13:30-32, 14:44-45

Id. ¶ 117 (emphasis added).

We understand Petitioner’s citations and Mr. Nicely’s testimony to direct us to columns 13–14 of the ‘657 patent. There, the ‘657 patent discloses that

[t]he present invention also includes systems and methods to conduct Skill-based Tournaments. Referring to FIG. 1, the Tournament Administration module 240 oversees these tournaments. While those skilled in the art will realize many variations and modifications consistent with the present invention, for purposes of description exemplary Skill-based Tournaments are described herein.

Ex. 1001, 13:28–35. In the subsequent sections, the ‘657 patent describes how a tournament may be managed by the Tournament Administration module. In one example, the “players could select tournament play and be presented with a list of available tournaments.” *Id.* at 13:42–44. Then, “a tournament player, such as Player 1, can join any ‘Table’ that is not full of players.” *Id.* at 13:55–56. Once a player makes a table selection, the player

will be “seated” and the player’s account may be deducted for an entry fee. *See id.* at 13:55–14:1. The ’657 patent also discloses that the tournament could begin after preconditions are met such as the required number of players are seated, or a predetermined time is reached. *Id.* at 14:1–6. Further, the ’657 patent discloses that “[o]nce funds have been collected from all players and the precondition for beginning the tournament has been met, the players will be allowed to compete in the ‘Game[.]’” *Id.* at 14:12–15. The ’657 patent provides that upon completion of the game, the winning player or players receive their winnings. *Id.* at 14:18–20. Additionally, the ’657 patent indicates “winnings could be determined by various methods” and “[a]fter the game finishes, all players could be given the opportunity to start a new [game].” *See id.* at 14:18–19, 14:28–31.

With this express disclosure of the ’657 patent in mind, we determine that Petitioner sufficiently points to the corresponding structure, i.e., the algorithm of the tournament administration module in software form that is within the administration server, which performs the corresponding function required by claims 17–18, and by claim 19 that depends from claim 18. Pet. 19–21; Ex. 1001, 13:28–15:30; *see* Ex. 1003 ¶¶ 115–117.

Patent Owner’s reliance on *Microsoft Corp. v. Improved Search LLC*, IPR2017–01613, is also unpersuasive. In *Microsoft Corp.*, the panel partially instituted *inter partes* review of a subset of the challenged claims 1–12. Paper 8 at 1, 22–23 (PTAB Dec. 26, 2017).⁷ That panel did not institute review for claims in which the Petitioner there failed to show any

⁷ The Institution Decision in IPR2017-01613 issued prior to *SAS Institute Inc. v. Iancu*, 138 S. Ct. 1348 (2018).

algorithm corresponding to the recited function of “to search the database of the advertising cues based on the relevancy to the translated content word.” *Id.* at 8.

In the instant case, the circumstances are different. The Petition directs us to columns 13 and 14 of the ’657 patent, which provides step by step operation (i.e., algorithm) by the tournament administration module for an exemplary embodiment of skill-based tournaments. *See* Pet. 19–21. Petitioner’s proposed construction under § 112 ¶ 6 is supported by citation to Mr. Nicely’s testimony and sections of the Specification noted in the Institution Decision as well as in this Decision. Inst. Dec. 14 (citing Ex. 1001, 4:14–31, 13:28–15:30, Fig. 1; Ex. 1003 ¶¶ 115–117). Patent Owner has not adequately addressed this disclosure.

We are also not persuaded by Patent Owner’s citations to *Qualcomm Inc. v. Intel Corp.*, 6 F.4th 1256, 1266 (Fed. Cir. 2021) and *WMS Gaming, Inc. v. Int’l Game Tech.*, 184 F.3d 1339, 1349 (Fed. Cir. 1999)). Patent Owner cites to these decisions to support its position that Petitioner and the panel cannot merely cite to the server for corresponding structure. However, we have not determined that the “proposed corresponding structure . . . is just a server.” PO Resp. 27 (citing Inst. Dec. 23, 25). Rather, in the Institution Decision, we determined that “the Petition clearly identifies and explains the basis for Petitioner’s proposed construction by citation to Mr. Nicely’s testimony and to the Specification, including citations to that which Petitioner asserts is the algorithm performed by the server.” Inst. Dec. 13–14 (citing Pet. 19–21). Further, as discussed above, we determine that the Petition cites to the ’657 patent’s disclosure in columns 13–14 of “tournament administration module 240.” Pet. 19–21. There, the ’657

patent describes how the tournament administration module, e.g., algorithm, oversees and manages the tournaments. An algorithm may be expressed in any understandable terms including as a mathematical formula, in prose, in a flow chart, or “in any other manner that provides sufficient structure.”

Finisar Corp. v. DirecTV Group, Inc., 523 F.3d 1323, 1340 (Fed. Cir. 2008).

Patent Owner has not addressed the disclosure in columns 13–15 that is referenced in the claim construction discussion of the Institution Decision, which provides additional details on the steps the tournament administration module takes to oversee and manage tournaments. *See generally* PO Resp.

Furthermore, we are not persuaded by Patent Owner’s reliance on *Cochlear Bone Anchored Sols. AB v. Oticon Med. AB*, 958 F.3d 1348, 1359 (Fed. Circ. 2020). Even assuming that there is a question of indefiniteness, which is an issue that Patent Owner raises, our reviewing court has also instructed that “it is not always impossible to adjudicate a prior-art challenge, one way or the other, just because some aspect of a claim renders the claim indefinite.” *Intel Corp. v. Qualcomm Inc.*, 21 F.4th 801, 813 (Fed. Cir. 2021) (citing *Samsung Electronics America, Inc. v. Prisia Eng’g Corp.*, 948 F.3d 1342, 1355 (Fed. Cir. 2020)). In other words, indefiniteness or the potential indefiniteness of a term does not always preclude our prior-art analysis.

Having determined that Petitioner has satisfied Rules 100(b) and 104(b), the remaining patentability dispute regarding claims 17–19 therefore does not rest on whether “tournament administration module” is or isn’t indefinite, or whether indefiniteness renders it logically impossible to reach a patentability decision regarding whether the prior art teaches a “tournament administration module.” Patent Owner has not argued that the

“tournament administration module” is a missing limitation in the prior art. *See* PO Resp. 24–29, 42–45. Instead, the parties’ dispute rests on whether Petitioner has met its burden in sufficiently explaining the reasons for the asserted combination of Bryan’s and Schlottmann’s disclosures and the reasonable expectation of success for the same. Thus, for purposes of this Decision, we may resolve the prior-art challenge to the patentability of claims 17–19 despite any potential indefiniteness of the means-plus-function terms, and need not determine “whether those terms are actually indefinite.” *See Intel*, 21 F.4th at 814; *see also 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))).

Moreover, we determine Petitioner’s construction is adequate based on the complete record. We understand Petitioner to argue that the corresponding structure for “tournament administration module” is an algorithm that is implemented by a server programmed to perform the functions of overseeing and managing tournament games. Pet. 19–21.

5. *means-plus-function limitations (claim 26)*

Claim 26 is directed to a system that comprises several means limitations:

means for receiving, from an administration server, a list of player gaming options for a player in a current location, wherein the list of player gaming options is limited to gaming options allowed in the current location of the player, and wherein the gaming options include limits on wagering amounts or types of games to prevent the player from unlawful play in the current location of the player;

means for displaying, on the gaming client, the list of player gaming options;

means for monitoring an interface on the gaming client to identify a selection of player gaming options selected by the player in response to the list of player gaming options being displayed on the gaming client;

means for transmitting, to the administrative server, the selection of gaming player option selected by the player to initiate a matching of the player with an at least one competitor;

means for collecting a bet from the player, wherein the bet is within a betting range identified in the selection of player gaming options;

means for initiating a game for the player, wherein the game is based on the selection of player gaming options; and

means for compensating the player with player winnings based on results of the game.

Ex. 1001, 18:42–19:2 (emphases added).

Using the term “means” in a “means for” context creates a rebuttable presumption that 35 U.S.C. § 112, ¶ 6 applies. *See Williamson*, 792 F.3d at 1348–49 (“use of the word ‘means’ creates a presumption that § 112, ¶ 6 applies”).

Petitioner observes that “[c]laim 26 recites several ‘means for’ limitations” and further provides the table below that spans pages 21 through 22 of the Petition. Pet. 21–22.

Claim	Claimed “Means For” Function	Function Described in Specification
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26[a]	receiving, from an administration server, a list of player gaming options for a player in a current location	EX[1001] 6:57-60, 9:37-40, 9:55-56, 10:51-56, 11:11-16, 11:36-37, 11:49-55, 13:42-44
26[d]	displaying, on the gaming client, the list of player gaming options	EX[1001] 5:10-11, 6:46-51, 6:57-60, 9:37-40, 9:55-56, 10:51-56, 11:11-16, 11:36-37, 11:49-55, 13:42-44,
26[e]	monitoring an interface on the gaming client to identify a selection of player gaming options selected by the player in response to the list of player gaming options being displayed on the gaming client	EX[1001] 5:49-51, 6:65-7:3, 8:56-58
26[f]	transmitting, to the administrative server, the selection of gaming player option selected by the player to initiate a matching of the player with an at least one competitor	EX[1001] 7:15-19
26[g]	collecting a bet from the player	EX[1001] 8:18-22, 58-59, 11:45-47, 12:33-35, 15:2-4
26[i]	initiating a game for the player	EX[1001] 8:60-61, 9:5-7, 12:63-65
26[j]	compensating the player with player winnings based on results of the game	EX[1001] 11:11-17, 12:57-59

Id. at 21–22. Petitioner adds that the gaming client and servers include general purpose computers executing software. *Id.* at 23.

For institution, we determined that Petitioner identifies structure and function for each means-plus-function limitation on pages 21–23 of the Petition that is supported by citations to the Specification and by Mr. Nicely’s claim chart in paragraph 122 of his declaration that identifies the algorithm, which performs the corresponding function with respect to each means-plus-function limitation recited in claim 26. Ex. 1003 ¶ 122. Patent Owner did not provide any constructions for these limitations. For

institution, we accepted Petitioner’s constructions as consistent with the preliminary record.

After institution, Patent Owner maintains that Petitioner’s construction are defective because “Petitioner does not specifically identify what structure is associated with each means limitation, and generally recites ‘general purpose computers executing software.’” PO Resp. 25 (citing Pet. 22–23). Patent Owner further contends generally that “Petitioner’s proposed constructions for the terms are also incorrect because they fail to account for algorithmic structure described in the ’657 patent that relates to the recited functions.” *Id.* at 29.

Below we discuss each means-plus-function limitation required by Claim 26.

a) *means for receiving, from an administration server*

Claim 26 recites:

means for receiving, from an administration server, a list of player gaming options for a player in a current location, wherein the list of player gaming options is limited to gaming options allowed in the current location of the player, and wherein the gaming options include limits on wagering amounts or types of games to prevent the player from unlawful play in the current location of the player[.]

Ex. 1001, 18:43–51.

For this limitation, Petitioner asserts that the function is “receiving, from an administration server, a list of player gaming options for a player in a current location.” Pet. 21–22. Petitioner further relies on the testimony of Mr. Nicely (*see id.* at 22), who opines there are several “servers” or systems in the ’657 patent that may be programmed to carry out the function recited in

this means-plus-function limitation. Ex. 1003 ¶ 121. Mr. Nicely testifies generally that pursuant to § 112, ¶ 6, a “means for” limitation must include an algorithm that performs the corresponding function described in the ‘657 Patent. *Id.* ¶ 122. Mr. Nicely then provides excerpts and citations to the portions of the Specification that he asserts provides the corresponding function, i.e., algorithm, for this limitation. *Id.* (citing Ex. 1001, 6:57–60, 9:37–40, 9:55–56, 10:51–56, 11:11–16, 11:36–37, 11:49–55, 13:42–44). For example, Mr. Nicely notes that the Specification discloses:

“[t]he Player Interface module 270 could access the Gaming Option Creation module 210 to present the player with a list of gaming options,” “the system presents a player with a list of player gaming options 1100,” “it presents the player with the list of player gaming options 1100,” “the system will present the player with a modified list of player gaming options,” “a player could [...] be presented with a list of competitors in [a] betting range,” “a player could [...] be presented with a list of competitors willing to play the same game for similar amounts,” “players are given a list of player gaming options that include options to play competitors who are willing to play for an acceptable amount,” “a player is presented with a list of competitors,” “[the system] can provide a list of competitors,” “[the system] could provide a list of competitors with varying ranks and experience,” “players could [...] be presented with a list of available tournaments.”

Id. (alternations in original)

Patent Owner has not addressed Mr. Nicely’s testimony or Petitioner’s and Mr. Nicely’s citations to the ‘657 patent, except to contend that the Petition did not sufficiently identify corresponding structure or algorithmic structure. *See* PO Sur-reply 10, 15. Yet, Petitioner has addressed the corresponding structure by citation to the Specification of the ‘657 patent and reliance on Mr. Nicely’s testimony that quotes sections of the ‘657

patent's disclosure. As shown above, Mr. Nicely directs us to "Player Interface module 270" that presents the player with a list of gaming options.

Patent Owner takes issue with the fact that the right-most column of the Petitioner's table in the Petition refers to "function" rather than structure. While that may be so, Mr. Nicely's testimony clearly indicates he considered that § 112, ¶ 6 requires the disclosure of an algorithm that performs the function as described in the table. Ex. 1003 ¶ 122. Thus, we consider Mr. Nicely's testimony and Petitioner's arguments to be that the corresponding structure is an algorithm in software form, such as player interface module 270, that a general purpose computer is programmed execute.

Based on the complete record, we find that the Petition "identif[ies] the specific portions of the specification that describe the structure, material, or acts corresponding to each claimed function" of this means-plus-function limitation in claim 26. 37 C.F.R. § 42.104(b)(3); *see* Pet. 22.

Patent Owner does not provide an alternative construction for this limitation. *See* PO Resp. 21–35.

We apply Petitioner's construction for our prior-art analysis because it is consistent with and supported by the complete record.

b) means for displaying

Claim 26 further recites "means for displaying, on the gaming client, the list of player gaming options[.]" Ex. 1001, 18:52–53. For this limitation, Petitioner argues that the '657 patent discloses corresponding structure that includes touch screen kiosks, palmtops, PDAs, wireless tablets, or slot/video machines or "currently deployed equipment on the casino floor such as Wireless Handheld devices, Kiosks and Interactive TV." Pet. 23 (citing Ex. 1001, 3:60–66).

Patent Owner does not provide an alternative construction, but generally takes issue with whether Petitioner has sufficiently explained its construction of means-plus-function limitations. *See* PO Resp. 24–35. Nonetheless, based on the complete record, we find that the Petition “identif[ies] the specific portions of the specification that describe the structure, material, or acts corresponding to each claimed function” of this means-plus-function limitation in claim 26. 37 C.F.R. § 42.104(b)(3); *see* Pet. 22 (citing Ex. 1001, 3:60–66). Moreover, we apply Petitioner’s construction for our prior-art analysis because it is consistent with and supported by the complete record.

c) means for monitoring

Claim 26 further requires:

means for monitoring an interface on the gaming client to identify a selection of player gaming options selected by the player in response to the list of player gaming options being displayed on the gaming client[.]

Ex. 1001, 18:54–57. For this limitation, Mr. Nicely quotes the Specification’s disclosure that

“[t]he Gaming Option Collection module 218 collects a selection of gaming options,” “the Gaming Option Collection module 218 [...] is designed to collect a selection from the list of gaming options presented,” “the Gaming Option Collection module 218 could access the Player Interface module 270 to receive which gaming options the player selected,” “the system collects that selection 1200,” and/or “the system could collect at least one selection of competitor gaming options 1310[.]”

Ex. 1003 ¶ 122 (citing Ex. 1001, 5:49–51, 6:65–7:3, 8:56–58) (first two alterations in original). The Petition relies on the same disclosures in the

Specification that Mr. Nicely discusses in his declaration. As such, we understand Petitioner's position to be that the corresponding structure is an algorithm in software form, such as Gaming Option Collection module, that a general purpose computer (e.g., server) is programmed execute to perform the functions of allowing a player access to gaming options and collecting a player's game option selection.

Patent Owner does not provide an alternative construction, but generally takes issue with whether Petitioner has sufficiently explained its construction of means-plus-function limitations. *See* PO Resp. 24–35. Again, based on the complete record, we find that the Petition “identif[ies] the specific portions of the specification that describe the structure, material, or acts corresponding to each claimed function” of this means-plus-function limitation in claim 26. 37 C.F.R. § 42.104(b)(3); *see* Pet. 22. Moreover, we apply Petitioner's construction for our prior-art analysis because it is consistent with and supported by the complete record.

d) means for transmitting

Claim 26 further recites

means for transmitting, to the administrative server, the selection of gaming player option selected by the player to initiate a matching of the player with an at least one competitor[.]

Ex. 1001, 18:58–61.

For this limitation, we observe that Mr. Nicely testifies that “the Game Initiation module 280 communicates information, including player information and player selected options, to the game software.” Ex. 1003

¶ 122 (citing Ex. 1001, 7:15–19). The Petition refers to the same disclosure cited by Mr. Nicely, and adds that the corresponding structure for “means for transmitting” may also be a Local Area Network (LAN) or a Wide Area Network (WAN). *See* Pet. 22–23 (citing Ex. 1001, 4:15–21).

Patent Owner does not provide an alternative construction, but generally takes issue with whether Petitioner has sufficiently explained its construction of means-plus-function limitations. *See* PO Resp. 24–35. Based on the complete record, we find that the Petition “identif[ies] the specific portions of the specification that describe the structure, material, or acts corresponding to each claimed function” of this means-plus-function limitation in claim 26. 37 C.F.R. § 42.104(b)(3); *see* Pet. 22. Moreover, we apply Petitioner’s construction for our prior-art analysis because it is consistent with and supported by the complete record. That is, we determine the function recited is to be performed by a LAN, a WAN, or a general purpose computer that is programmed, e.g., software/algorithm or game initiation module, to perform the functions of transmitting the selection of gaming player option selected by the player to initiate a matching of the player with an at least one competitor.

e) means for collecting a bet from the player

Claim 26 further recites “means for collecting a bet from the player, wherein the bet is within a betting range identified in the selection of player gaming options[.]” Ex. 1001, 18:62–64.

In his declaration, Mr. Nicely observes that the ’657 patent discloses “the Accounting module 295 [...] could take care of debiting [...] a player’s account,” and that “[t]he system [...] collects a bet from the player 1400

before initiating a game 1500,” and/or “the system collects his [sic] \$ 2 entry fee 1400[.]” Ex. 1003 ¶ 122 (citing Ex. 1001, 8:18–22, 8:58–59, 11:45–47, 12:33–35, 15:2–4) (first five alterations in original). Petitioner further contends that “means for collecting a bet” may also be “a ‘Cash In’ device.” Pet. 23 (citing Ex. 1001, 12:15–19).

Patent Owner does not provide an alternative construction. *See* PO Resp. 24–35.

Based on the complete record, we find that the Petition “identif[ies] the specific portions of the specification that describe the structure, material, or acts corresponding to each claimed function” of this means-plus-function limitation in claim 26. 37 C.F.R. § 42.104(b)(3); *see* Pet. 22–23. We also apply Petitioner’s construction for our prior-art analysis because it is consistent with and supported by the complete record. We determine that the function recited is to be performed by a “Cash In device” or a general purpose computer that is programmed, e.g., software/algorithm, to perform the functions of collecting a bet from the player, wherein the bet is within a betting range identified in the selection of player gaming options.

f) means for initiating a game for the player

Claim 26 further recites “means for initiating a game for the player, wherein the game is based on the selection of player gaming options[.]” Ex. 1001, 18:65–67.

Mr. Nicely’s testimony directs us to the ’657 patent’s disclosure that “the system initiates a game based on the selection of player gaming options 1500,” “[t]he system uses the gaming options to initiate the game for the player,” and/or “the system initiates the game by running the game itself.”

Ex. 1003 ¶ 122 (citing Ex. 1001, 8:60–61, 9:5–7, 12:63–65) (alteration in original). Consistent with Mr. Nicely’s citations to the Specification, we observe that the ’657 patent discloses, with reference to the flow chart shown in Figure 5, an overview of the steps of operation:

First, the system presents a player with a list of player gaming options 1100. *Once the player has made a selection from the list of player gaming options, the system collects that selection 1200. The system then matches the player with a competitor 1300 and collects a bet from the player 1400. Next, the system initiates a game based on the selection of player gaming options 1500.* Finally, after the game has completed, the system compensates the player 1600. It is not necessary that the steps run in this specific order.

Ex. 1001, 8:53–64 (emphases added). The ’657 patent further discloses that

[g]aming options are the parameters for a game. *The system uses the gaming options to initiate the game for the player.* For example, gaming options may include: a game type, such as Poker, 9-Ball, chess, or a football arcade game; a bet amount for a particular game type, such as \$5 or 10 points; a specific competitor to play against, where the competitor may be identified in many ways, including but not limited to: console location, account name, nick name, or record; or even a preset game, complete with bet and game type, such as a game of chess with a \$5 jackpot.

Id. at 9:5–14 (emphasis added). In this way, we understand that the ’657 patent discloses that the “system” is programmed to initiate the game based on player selected options. This disclosure supports Petitioner’s position that the corresponding structure for the “means for initiating a game for the player” is an algorithm that runs as software on a general purpose computer executing software to perform the function. *See id.* at 8:53–64.

Patent Owner does not dispute Petitioner's construction for this term.
See generally PO Resp.

Based on the complete record, we determine that Petitioner identifies structure and function for this means-plus-function limitation on pages 21–23 of the Petition and supports this construction by citations to the Specification. Further, we accept Petitioner's construction as consistent with the complete record.

g) means for compensating the player

Claim 26 further recites “means for compensating the player with player winnings based on results of the game.” Ex. 1001, 19:1–2.

Petitioner contends that the “means for compensating the player” may be a Ticket Out device or another system to produce coins for the player. Pet. 23 (citing Ex. 1001, 9:48–51, 15:22–24); Ex. 1003 ¶ 121. Additionally, Mr. Nicely testifies that the '657 patent discloses:

[a]fter determining the amount of winnings due to the player, the payout determination module 240 can initiates [sic] a payout to the player. Depending on the type of winnings, the module may communicate to different systems. For example, if the player is to receive hard currency, payout determination module 240 may initiate another system (not shown) to produce coins for the player; the system may compensate a player with tokens, a “Ticket-Out,” real money, or crediting the player's account; the payout may be through an electronic payment systems to a user account (e.g., virtual currency account, bank account, casino account, etc.) and/or payout determination module 240 may direct the accounting module 245 to credit the player's account.

Ex. 1003 ¶ 122 (citing Ex. 1001, 11:11–17, 12:57–59) (alterations in original).

Patent Owner contends that Petitioner's proposed construction ignores the disclosures in the '657 patent. PO Resp. 30. Patent Owner contends that the "means" performs these sequence of steps:

[T]he system first determines which objectives the player achieved in the game 1610. Then it determines which objectives any competitors achieved in the game 1620. The system then calculates any winnings for the player 1630 based on objectives achieved and other information, including but not limited to: the rules of the game, and any selected gaming options.

Ex. 1001, 13:2–9. Patent Owner further contends that Figure 6 provides a flow diagram of similar steps. PO Resp. 30–31.

In determining the corresponding structure, we start with the function "compensating the player with player winnings" (Ex. 1001, 19:1–2) and note that compensating the player is "based on results of the game." We agree with Patent Owner that the Specification describes steps, as shown in Figure 6, for compensating a player based on the results of the game. *Id.* at 13:2–9, Fig. 6. This indicates that the steps shown in Figure 6 and described in column 13 provide *one* corresponding structure, e.g., algorithm, for performing the recited function. However, column 13 also discloses that "[o]nce the amount of winnings is calculated, the system initiates payment 1640. In order to effect payment, *the system may compensate a player with tokens, a "Ticket-Out," real money, or crediting the player's account.*" *Id.* at 13:9–12 (emphasis added). As such, the '657 patent also contemplates that a Ticket Out device or another system provides compensation to the player based on the amount of winnings calculated, i.e., results of the game. Taken altogether, we determine that the corresponding structure for the function recited is a Ticket Out device or software (e.g., algorithm) executed

on a general purpose computer to initiate payout to a player based on the results of the game. *See* Ex. 1001, 13:2–12.

D. Overview of the Prior Art

1. Summary of Bryson (Ex. 1004)

Bryson is titled “Gaming Community Management and Personalization.” Ex. 1004, code (54). Bryson summarizes its disclosure as follows:

The present invention involves methods and devices for controlling many aspects of a player’s gaming experience, including game themes presented, game denomination, pay models, content and promotions. Some implementations of the invention provide a casino operator the necessary tools to create subsets of customers, often referred to herein as “communities,” and to control the gaming experiences of players in these communities. In some such implementations, communities may be created and/or modified according to various criteria, some of which may be weighted more heavily than others. Specific marketing messages, promotions, etc., may be provided to attract and retain players having similar characteristics and preferences.

Id. at 1:33–45.

Bryson also discloses that its invention provides for “the flexible creation and/or modification of player communities” and that an “operator (and/or the central system) may provide wagering games, wagering game attributes, etc., according to a player’s community, location and/or device.”

Id. at 5:40–47.

Figure 6 is reproduced below.

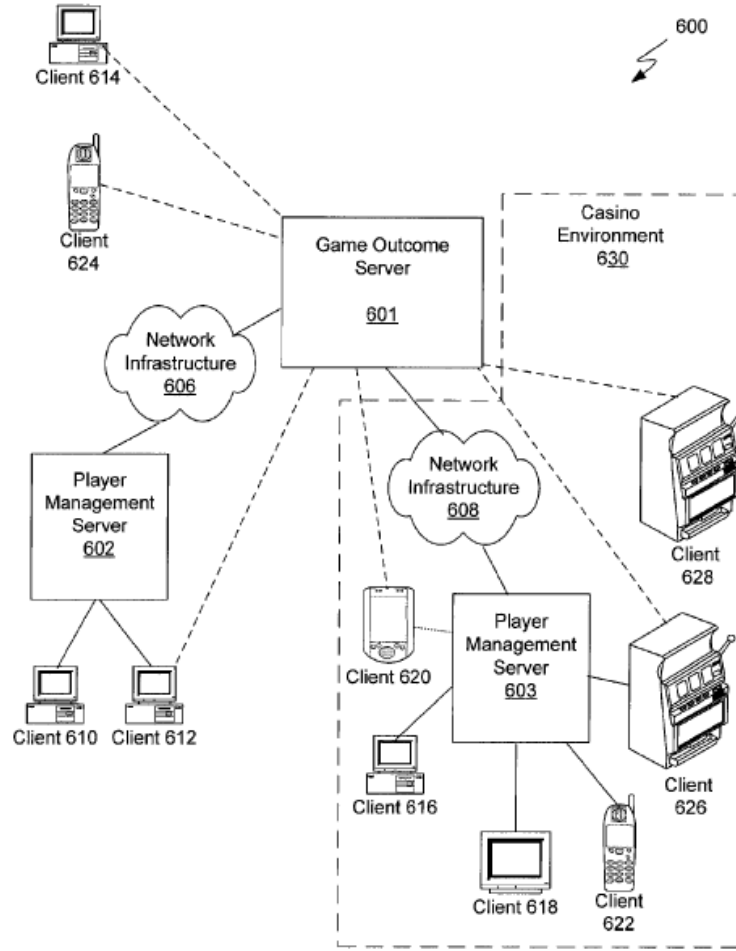


FIG. 6

Figure 6 shows a block diagram for gaming system 600 that provides wager-based gaming services on a number of different clients. *Id.* at 12:23–27. As shown in Figure 6, gaming system 600 may include game outcome server 601, player management servers 602, 603, network infrastructure 606, 608, and clients. *Id.* at 12:27–30. Bryson further discloses that “clients in the gaming system 600 provide an interface that allows a user to participate in a

game.” *Id.* at 12:31–32. Clients include personal computers 610, 612 and 614, cell phones 622, 624, tablet computer 618, PDA 620, casino-type gaming machines 626, 628, and television set-top box 616. *Id.* at 12:42–47.

To demonstrate gameplay, Figure 1 is provided below.

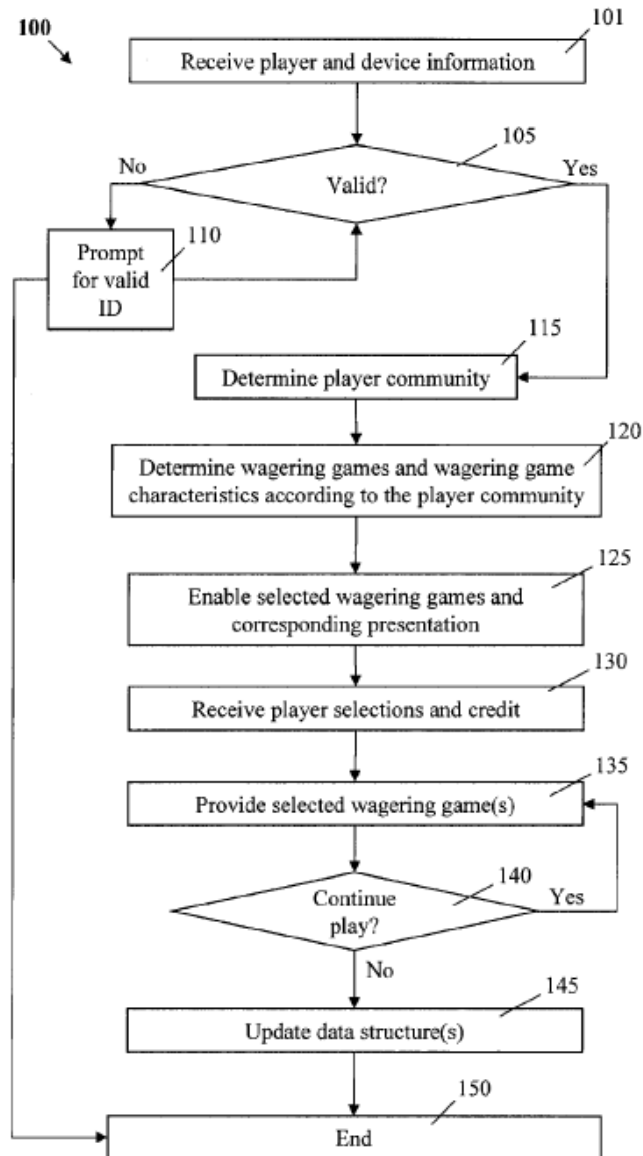


Fig. 1

Figure 1 above shows a flow chart that outlines a method for providing wagering games to player communities. *Id.* at 4:27, 5:48–51. Flow chart 100 starts with step 101 in which player information and device information are received. *Id.* at 5:48–57. Bryson discloses “[i]f the player’s device is outside a ‘bricks and mortar’ casino environment, the device’s location should be determined . . . [because] [d]etermining the device’s location allows an online casino to identify the corresponding jurisdiction and to comply with the regulations of that jurisdiction.” *Id.* at 6:9–13.

With regard to step 105, the player’s community is determined by a device such as a server of a central system with reference to a database of players and player communities. *Id.* at 6:30–34. “If a player has not previously been assigned to a player community, step 115 may involve assigning the player to a community according to player information, e.g., according to a player’s indicated wager gaming preferences, indicated experience level and/or other factors.” *Id.* at 6:34–39.

Next, “wagering games associated with the player community are determined, e.g., via reference to a database of a central system” in step 120. *Id.* at 7:9–11.

Then, step 125 includes providing a wagering game presentation to the player, which may depend on various factors such as “the characteristics of the player community, the type and location of the device used for gaming and the provisioning mode.” *Id.* at 7:49–53. “[T]he presentation may depend on device location. For example, wagering games and/or wagering game attributes may be provided according to the legal requirements of a device’s jurisdiction. Wagering limits, [and] wagering

game time limits, may be imposed according to jurisdictional requirements.”
Id. at 8:24–29.

2. *Summary of Amaitis (Ex. 1005)*

Amaitis is a reference titled “System and Method for Peer-to-Peer Wireless Gaming.” Ex. 1005, code (54). Amaitis’s Figure 9 is reproduced below.

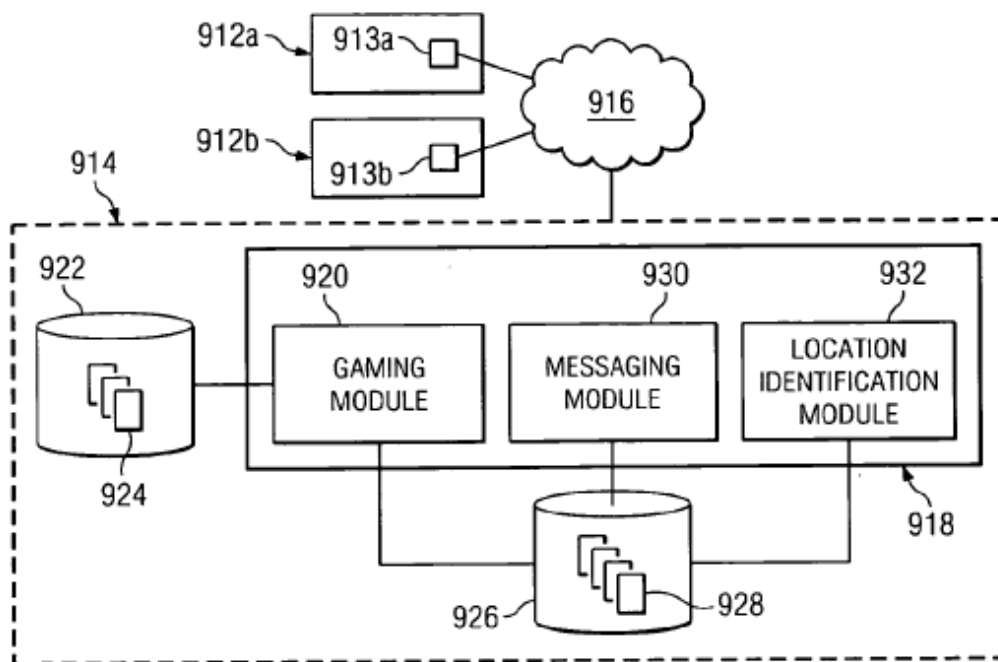


FIG. 9

Figure 9 depicts a peer-to-peer wireless gaming system. *Id.* ¶ 31. Gaming system 910 includes users 912a and 912b who access gaming system 910 by way of gaming devices 913a and 913b. *Id.* Gaming devices 913 transmit and receive gaming information to and from gaming service provider 914. *Id.*

Amaitis further discloses that

user 912 may enter user-parameters that indicate the user's desire to join into an existing game, initiate a new game, participate in a virtual game, participate in an actual game, play from a single deck, and/or play from a shoe. User parameters may also specify particular betting minimums or limits that the user 912 would like to play. Still other user-parameters may identify a minimum or maximum number of players with whom the user 912 would like to play. Processor 918, and specifically gaming module 920, may use these and other user-specified parameters as search criteria when identifying potential gaming activities that may be displayed to the user 912 on a gaming device 913.

Id. ¶ 47.

3. *Summary of Frenkel (Ex. 1007)*

Frenkel is a reference entitled “Interactive Gaming Among a Plurality of Players Systems and Methods.” Ex. 1007, code (54). Frenkel's system for interactive gaming “includes a host computer system and a plurality of player terminals communicably coupled to the host computer system via a network,” in which the plurality of player terminals “are located at a plurality of licensed gaming locations.” *Id.* at code (57). Frenkel discloses that its method

may include arranging terminals at a given location to thereby inhibit collusion among players using the player terminals at the given location while engaged in a common game. The method may include inhibiting collusion among players using the player terminals at the given location while engaged in a common game by prohibiting a player from joining a specific game session at a terminal proximate a player terminal of another player engaged in the specific game session.

Id. ¶ 10. Such collusion may be dealt with in different ways, such as having the player terminals or the gaming location “employ electronic countermeasures that disrupt cell phone signals” or having the gaming

network operator “employ collusion detection software that monitors player action.” *Id.* ¶ 35. For example, a collusion detection processor monitors “unusual action taken by a specific player, frequent occurrences of the same players playing together in the same games, and the like.” *Id.* ¶ 44. “Players suspected of colluding may be immediately barred from a game and their deposits held pending resolution.” *Id.* ¶ 35.

4. Summary of Schlottmann (Ex. 1006)

Schlottmann is a reference entitled “Server Based Gaming System and Method for Selectively Providing One or More Different Tournaments.” Ex. 1006, code (54). Schlottmann’s gaming system “includes a central server or controller operable to communicate a plurality of different commands to a plurality of gaming machines to provide non-tournament game play and to provide tournament game play on the same gaming machines.” *Id.* at code (57). Schlottmann discloses that although a tournament can be a self-scheduled tournament that the player may play instantly, “the player may have to wait until a certain time, or until a certain number of players have played the tournament game to know their final standing.” *Id.* ¶ 37.

E. Grounds 1 and 2: Based on Bryson alone or Bryson and the knowledge of a skilled artisan (claims 9–11, 20)

Petitioner asserts claims 9–11 and 20 are anticipated by Bryson alone or would have been obvious over Bryson and the knowledge of a skilled artisan. Pet. 27–40. Petitioner supports its position in the Petition through recourse to the testimony of Mr. Nicely (Ex. 1003). Patent Owner opposes. *See* PO Resp. 11–20, 35–40.

Having considered the complete record, Petitioner has established by a preponderance of the evidence that Bryson anticipates claims 9 and 10. Further, we determine that Petitioner has established by a preponderance of the evidence that claim 20 would have been obvious over the combination of Bryson with the knowledge of a skilled artisan.

With respect to claim 11, we determine that Petitioner has not demonstrated Bryson anticipates claim 11 or that Bryson with the knowledge of a POSITA renders claim 11 obvious.

We discuss each claim below.

1. Claim 9

a) Petitioner's Contentions

Claim 9 is generally directed to a gaming system that includes at least one processor and at least one communication interface. Ex. 1001, 16:62–17:13.

For these limitations, Petitioner asserts that Bryson discloses gaming system 600 that includes game outcome server 601; player management servers 602, 603; network infrastructure 606, 608; and clients. Pet. 28 (citing Ex. 1004, 12:23–30; Ex. 1003 ¶ 186). Petitioner adds that Bryson teaches the use of a processor or multiple processors to “allow an operator to control many aspects of a player’s gaming experience.” *Id.* (citing Ex. 1003 ¶ 146; Ex. 1004, 5:8–12, 5:32–36). Petitioner further argues that Bryson’s gaming system 600 provides an interface that allows users (e.g., clients) to participate in a game via network infrastructure interface 606 that transmits gaming options and receives user selection and gaming information from the clients. *Id.* at 29 (citing Ex. 1003 ¶ 147; Ex. 1004, 12:56–13:2, Fig. 6).

Petitioner adds Bryson teaches that each client 610–628 in its gaming system

includes a “communication interface” such as “an interface that allows a user to participate in a game” such as “a display device for viewing the game and input mechanism for making choices” including for “select[ing] a game.” *Id.* at 29–30 (citing Ex. 1003 ¶ 148; Ex. 1004, 12:31–41).

In its Reply, and in response to Patent Owner’s arguments, Petitioner asserts that the Petition maps the claimed communication interface to Bryson’s “network infrastructure 606” and not to the network itself. Pet. Reply 18 (citing Pet. 29). Petitioner adds Bryson discloses that “network infrastructure 606” refers to “infrastructure,” or hardware devices, “that allow the clients and servers to communicate with one another.” *Id.* (citing Ex. 1004, 12:56–59).

Claim 9 further recites:

a memory containing a plurality of program instructions when executed by one or more processors cause one or more machines to:

determine a current location of a gaming client;

create a list of player gaming options for a player operating the gaming client at the current location, wherein the list of player gaming options restricts limits on wagers or types of games based on the current location of the gaming client;

transfer, using the communication interface, the list of player gaming options to the gaming client;

receive, via the communication interface, a selection of player gaming options from the gaming client;

initiate a game based on the selection of player gaming options; and

compensate the player with player winnings.

Ex. 1001, 16:62–17:13.

For “memory containing a plurality of program instructions,” Petitioner contends that Bryson discloses its gaming system is implemented as “software stored in a machine readable medium,” and that the “software may comprise instructions for controlling at least one device in a gaming network to perform” the operations of the disclosed “gaming system,” including to “provide wager-based gaming services on a number of different clients.” Pet. 30 (citing Ex. 1004, 3:14–30, 12:25–27; Ex. 1003 ¶ 149).

For “determine a current location of a gaming client,” Petitioner asserts Bryson teaches that if the player’s device is outside a bricks and mortar casino, the device’s location should be determined before displaying any games or gaming options to the player. *Id.* at 30–31 (citing Ex. 1004, 6:9–11, 8:18–23). Petitioner further contends that “[e]ven within a casino environment, Bryson teaches that ‘the location of a mobile gaming device may need to be determined on an ongoing basis’ because ‘particular games and/or presentations would or would not be allowed’ in ‘designated areas of a casino.’” *Id.* at 31 (citing Ex. 1004, 8:30–39).

Petitioner further contends that Bryson teaches:
tools that allow an operator to perform player analysis and segmentation, allowing for the flexible creation and/or modification of player communities. An operator may be able to specify not only site content, but actual game play to the *appropriate community*. The operator (and/or the central system) may provide wagering games, wagering game attributes, etc., according to a *player’s community, location* and/or device type.
Id. at 31–32 (citing Ex. 1004, 5:40–47) (emphases added and omitted).
Referring to Bryson’s Figure 1, Petitioner contends that in step 125 of operation, Bryson discloses that the determined wagering games are selected and enabled with a “corresponding presentation.” *Id.* at 32. Additionally,

Petitioner asserts that “Bryson teaches that the presentation of games and options provided to a user will ‘depend on device location’ so that ‘wagering games and/or wagering game attributes may be provided according to the legal requirements of a device’s jurisdiction.’” *Id.* at 33 (citing Ex. 1004, 8:24–29).

Petitioner asserts that Bryson teaches the limitation “wherein the list of player gaming options restricts limits on wagers or types of games based on the current location of the gaming client” because Bryson alters the list of available games in its presentation of gaming options to restrict and limit wagers in the listed games based on the jurisdiction where the player is located. *Id.* at 33–34 (citing Ex. 1003 ¶¶ 158–159). Petitioner quotes Bryson’s disclosure that “wagering games and/or wagering game attributes may be provided according to the legal requirements of a device’s jurisdiction. Wagering limits, wagering game time limits, may be imposed according to jurisdictional requirements.” *Id.* (quoting Ex. 1004, 8:24–29) (emphasis omitted).

For the limitations “transfer, using the communication interface, the list of player gaming options to the gaming client” and “receive, via the communication interface, a selection of player gaming options from the gaming client,” Petitioner argues that Bryson’s gaming system 600 provides an interface that allows users (e.g., clients) to participate in a game via network infrastructure interface 606 that transmits gaming options and receives user selection and gaming information from the clients. *Id.* at 34–36 (citing Ex. 1004, 6:30–34, 7:49–50, 12:34–41, 12:56–13:2, Fig. 1; Ex. 1003 ¶¶ 160, 162–164). Petitioner further asserts “Bryson teaches ‘online implementations’ using the network infrastructure above, where ‘a player

may be presented with a web page having wagering game options’ that have been transferred to a gaming client via the network interface.” *Id.* at 35 (citing Ex. 1003 ¶¶ 160–161; Ex. 1004, 7:53–56). Petitioner adds that a player’s wagering game selections are received at step 130 shown in Bryson’s Figure 1. *Id.* at 35–36 (citing Ex. 1004, 8:57–58, Fig. 1); Ex. 1003 ¶¶ 163–164.

Petitioner further asserts that Bryson discloses the limitation “initiate a game based on the selection of player gaming option” because step 130 of Bryson’s Figure 1 flowchart shows the receipt of the player selections and credit, and at step 135, Bryson’s system provides “selected wagering game(s).” *Id.* at 37 (citing Ex. 1004, 8:57–60, 12:37–39, Fig. 1).

Petitioner also contends that Bryson teaches the limitation “compensate the player with player winnings” because Bryson discloses “allow[ing] a remote client to provide game play of games where a monetary balance is adjusted based upon the outcome of the game,” and “allow[ing] funds to be...transferred from the account” via “credit cards, debit cards, bank accounts, wire transfers, etc.” *Id.* (citing Ex. 1004, 13:3–15; Ex. 1003 ¶ 166) (alterations in original).

b) Patent Owner’s Contentions

In its Response, Patent Owner notes that claim 9 recites a “‘communication interface’ (9[b]) used for (1) transferring the list of player gaming options to a player gaming client (9[g]), and (2) receiving a selection of player gaming options from the player gaming client (9[h]).” PO Resp. 35. Patent Owner contends that Petitioner “takes the unreasonable position that the recited ‘communication interface’ can be a network itself, as opposed to a network interface.” *Id.* at 37 (citing Pet. 29; Ex. 1003 ¶ 147)

(emphasis omitted). Patent Owner contends that the '657 patent never describes a network (e.g., network 111) as a communication interface and that the '657 patent requires communication interfaces to connect devices (e.g., clients and servers) to a network. *Id.* Patent Owner adds that “[a] POSITA would not interpret the recited ‘communication interface’ to cover a network.” *Id.* (citing Ex. 2005 ¶ 141).

In its Sur-reply, Patent Owner contends that “Petitioner tries to rewrite the Petition by arguing that the servers’ respective network interfaces would have been part of ‘network infrastructure 606’ it relied upon.” PO Sur-reply 16, 17 (“Petitioner’s new theory based on those server network interfaces was not disclosed in the Petition and is plainly improper.”). Patent Owner further argues that Bryson describes network infrastructure 606 as comprising wireless and wired communication links, which is not network interfaces of the servers. *Id.* (citing Ex. 1004, 12:56–59).

c) Discussion

Based on the complete record, we determine that Bryson’s disclosure better supports Petitioner’s position that Bryson anticipates claim 9. We observe first that Bryson’s Figure 6 shows gaming system 600 provides wager-based gaming services on a number of different clients. Ex. 1004, 12:23–27. As shown in Figure 6, gaming system 600 may include game outcome server 601, player management servers 602, 603, network infrastructure 606, 608, and clients. *Id.* at 12:27–30. Bryson further teaches the use of a *processor* or *multiple processors* to “allow an operator to control many aspects of a player’s gaming experience.” Pet. 28 (citing Ex. 1003 ¶ 146; Ex. 1004, 5:8–12, 5:32–36). As such, we agree with Petitioner that

Bryson discloses “a gaming system comprising at least one processor.” Ex. 1001, 16:62–63.

With respect to “communication interface,” we note that Petitioner makes two arguments that (1) Bryson’s gaming system 600 provides an interface that allows users (e.g., clients) to participate in a game via network infrastructure interface 606 that transmits gaming options and receives user selection and gaming information from the clients; and (2) Bryson teaches that each client 610–628 in its gaming system includes a “communication interface” such as “an interface that allows a user to participate in a game” such as “a display device for viewing the game and input mechanism for making choices” including for “select[ing] a game.” Pet. 29 (citing Ex. 1003 ¶¶ 147–148; Ex. 1004, 12:31–41, 12:56–13:2, Fig. 6).⁸

There is no apparent dispute between the parties as to the meaning of “communication interface.” Both parties agree that it is composed of components that connects devices, such as a gaming client and an administration server, to a network. *See* PO Resp. 37; Pet. Reply 18. Patent Owner also points to disclosure in the ’657 patent as describing that “[t]he Gaming Client 310 and the Administration Server 100 are connected to the Network 111 through communications interfaces. This interface could be a network interface that is suited for the Network 111.” PO Resp. 36 (quoting Ex. 1001, 4:23–25) (emphasis added). Bryson discloses that

[t]he network infrastructure, such as but not limited to 606 and 608, *that allow the clients and servers to communicate with*

⁸ Patent Owner does not attempt to counter Petitioner’s arguments in relation to Grounds 1 or 2, but only for Ground 3. PO Resp. 12–20, 35–38. Nevertheless, Patent Owner’s arguments apply to Grounds 1 and 2, particularly regarding Bryson’s disclosure of “communication interface.”

one another may comprise various combinations of wireless and wired communication links. Also, various wireless and wired communication protocols may be employed over these links as is appropriate for the devices that are communicating and the type of communication link that is being utilized for the communication. The protocols that are utilized may be of a proprietary or non-proprietary nature. The network infrastructures 606 and 608 may utilize communication links provided by wide-area networks, such as the Internet, a wide area progressive jackpot network, a Wi-Fi network or a cell phone network and/or local area networks, such as a communication schema provided within a casino.

Ex. 1004, 12:56–13:2 (emphases added).

In our view, there is nothing unreasonable or ambiguous in Petitioner’s identification of Bryson’s network infrastructure 606 as constituting the claimed “communication interface.” Patent Owner’s contentions that Petitioner relies on a “network itself” as the communication interface or that Petitioner introduces an improper new argument by relying on *infrastructure* are not an accurate characterization of Petitioner’s actual position as set forth in the Petition. We further note that Patent Owner does not seemingly address Petitioner’s alternative reliance on Bryson’s clients 610–628 as meeting the claimed “communication interface” in forming an “interface that allows a user to participate in a game” and “a display device for viewing the game and input mechanism for making choices.” *See* Pet. 29.

Furthermore, the testimony of Patent Owner’s declarant, Dr. Lane, is consistent with our reading of Bryson. Dr. Lane testified under cross-examination that a POSITA would generally understand communication interfaces to be part of any network. Ex. 1068, 53:21–54:5, 54:12–14. In

other words, the interfaces are generally part of the *infrastructure* of a network. *See id.* That being so, Petitioner’s citation to Bryson’s “network infrastructure” is more specific than a general “network” and refers to the infrastructure of a network, which Dr. Lane acknowledges includes interfaces. Thus, we determine that Petitioner has accounted adequately for the claimed “communication interface” based on Bryson’s disclosure.

With regard to the remaining limitations of claim 9, Patent Owner does not challenge any of those additional limitations as a part of the trial. Supported by the testimony of Mr. Nicely, Petitioner lays out where all the remaining limitations of claim 9 are present in Bryson. *See, e.g.,* Pet. 28–37. For example, we note that Bryson teaches that in “an online gaming context, a user may submit a user identification code and password to a device controlled by an online casino.” Ex. 1004, 5:59–61. As shown in the flowchart of Figure 1, Bryson teaches that the received information is used to authenticate the user/user’s device in step 105. *Id.* at Fig. 1. We observe that Bryson teaches the authentication step 105 may involve device authentication and/or location determination. *Id.* at 6:25–27. In that way, we find that Bryson’s system may make jurisdictional compliance determinations at step 105, which effectively limit the gaming options available to the user based on the user device’s current location. But this is not the only way that Bryson limits player gaming options based on location.

For step 125 shown in Figure 1, Bryson discloses that the determined wagering game presentation is then provided to the player. (Step 125.) Step 125 may vary according to various factors, including the characteristics of the player community, *the type and location of the device used for gaming and the provisioning mode.* For example, for online implementations, a

player may be presented with a web page having wagering game options, a characteristic layout, colors, graphics, etc., corresponding to the player community. Featured games, which may be displayed prominently on the web page, may be quite different from one community to another. If the same wagering game themes are presented to more than one community, wagering game characteristics (such as denomination, volatility, etc.) may be different.

Id. at 7:49–61 (emphasis added). Here, Bryson supports Petitioner’s position that Bryson’s presentation of games and options provided to a user will depend on device location so that wagering games and/or wagering game attributes may be provided according to the legal requirements of a device’s jurisdiction. Pet. 33 (citing Ex. 1004, 8:24–29); Ex. 1003 ¶¶ 152–155.

Based on the complete record, we determine Petitioner has demonstrated by a preponderance of the evidence that claim 9 is anticipated by Bryson.

2. *Claim 10*

Claim 10 depends from independent claim 9, and further recites “wherein the list of player gaming options includes arcade games, video games, puzzle games, word games, trivia games, or card games.” Ex. 1001, 17:14–16.

Petitioner contends that Bryson teaches that games include card games and solitaire. Pet. 37–38 (citing Ex. 1004, 12:31–34, 13:51–56; Ex. 1003 ¶ 168).

Patent Owner does not provide arguments specific to these limitations beyond those presented and discussed for independent claim 9. *See* PO Resp.

Based on the complete record, we agree with Petitioner’s position. Bryson teaches “slot games, card games (e.g., poker and blackjack), roulette games, bingo games, lottery games, keno games, or dice games, and playing games of skill, such as solitaire.” Ex. 1004, 13:53–56.

Accordingly, we determine Petitioner has demonstrated by a preponderance of the evidence that claim 10 is anticipated by Bryson.

3. *Claim 11*

Claim 11 depends from independent claim 9, and further recites “wherein the plurality of program instructions when executed by the one or more processors further cause the one or more machines to *dynamically adjust language and currency based on the current location of the gaming client.*” Ex. 1001, 17:17–21 (emphases added).

Petitioner contends that Bryson discloses that a denomination, such as U.S. dollars or pounds, may be selected according to a device location. Pet. 38 (citing Ex. 1004, 1:52–55, 2:38–40, 5:32–36, 7:12–14, 11:11–13, 23:54; Ex. 1003 ¶¶ 169–170). Petitioner notes that Bryson discloses determining “the player’s stated country of residence” and “other player registration information such as language, player balance, player currency, and other information concerning the player’s account” which are “used in customizing the game provided” by the system. *Id.* at 38–39 (citing Ex. 1004, 17:64–18:8; Ex. 1003 ¶ 171) (emphasis omitted).

Patent Owner contends that Bryson does not teach “dynamically adjust language ... based on the current location of the gaming client” because these factors are set by each user when they register. PO Resp. 12 (alteration in original). Patent Owner contends that “Bryson uses exactly what the user registers as (e.g., French, American, Mexican, etc.) . . . [and

that] [t]his is not dynamic adjustment based on a location determination of a gaming client in the current area they are located in.” *Id.* at 13. Patent Owner maintains that “a player who had registered as being based in the United States would not receive Spanish when they were in Mexico, or French when they were in France, as would be contemplated by Claim 11.” *Id.* (citing Ex. 2005 ¶ 124).

Based on the complete record, we agree with Patent Owner. In the Petition, Petitioner cites to column 17, line 64 through column 18, line 8 of Bryson as disclosing the dynamic adjustment of language required by claim 11 of the ’657 patent. There, Bryson teaches that

the information sent [from] the player management 602 server to the game outcome server that allows the game outcome server 601 to establish a communication link with the client device may include but is not limited to one or more of the following: a game identifier, an identifier associated with the message sender, a unique player identifier such as a number or a name, the player’s stated country of residence, other player registration information such as language, player balance, player currency, and other information concerning the player’s account used in customizing the game provided by the game outcome server 601 or combinations thereof.

Ex. 1004, 17:64–18:8 (emphases added). In our view, Bryson teaches that player registration information includes “language” and that this information is sent from player management 602 to game outcome server 601 to establish a communication link with the client device. *Id.* We do not see how this disclosure teaches that “the plurality of program instructions when executed by the one or more processors further cause the one or more machines to *dynamically adjust language and currency based on the current location of the gaming client.*” Ex. 1001, 17:17–21 (emphases added). The

disclosure quoted above indicates that the player management server sends player registration language information to the game outcome server, but does not disclose that this information is adjusted dynamically or otherwise based on the current location of the gaming client. Moreover, Mr. Nicely's testimony is unpersuasive in this regard. Mr. Nicely cites to the same passage of Bryson and testifies that the language information is used to customize the game provided by the system. Ex. 1003 ¶ 171. While we agree that the game is customized according to the player registration information (i.e., language), that is not adequate to teach the specific requirement that the language is adjusted based on the current location of the gaming client.

From our review, it is clear that Bryson does not expressly disclose this limitation. In the alternative, and in the Reply, Petitioner argues that a POSITA's knowledge would have provided this missing limitation. Pet. Reply 19–22. Specifically, Petitioner contends that

[a] POSITA would have understood that “language” is an aspect of game “presentation” that would be customized according to device location For example, Bryson teaches that “language . . . [can be] used in customizing the game[s] provided.” And Dr. Lane admitted that “adjust[ing] the content or the language based on the country that the content's going to be consumed in, let's say, or used” was well-known at the relevant time.

Id. at 20 (citing Ex. 1003 ¶ 171; Ex. 1004, 17:64–18:8; Ex. 1068, 99:20–100:14) (third through sixth alterations in original). Be that as it may, Petitioner has not provided any explanation for how or why a POSITA would modify Bryson to dynamically adjust language based on the current location of the gaming client. As discussed, Mr. Nicely testifies that language can be used to customize the game. Ex. 1003 ¶ 171. Bryson

supports Mr. Nicely’s testimony to the extent that the language for customizing the game is provided as player registration information by the player management server. Ex. 1004, 17:64–18:8. However, in Bryson’s system, the language is set by the player. Neither Mr. Nicely nor the Petitioner explains how Bryson’s system would or could be modified so that the language is adjusted dynamically based on a current gaming client’s location. Even assuming that a POSITA understood that adjusting language based on the country was well-known (Ex. 1068, 99:20–100:14), it remains Petitioner’s burden to explain sufficiently why Bryson would have been modified to include this feature. Petitioner has failed to do so.

Based on the complete record, Petitioner has not demonstrated by a preponderance of the evidence that claim 11 is anticipated by Bryson or would have been obvious over Bryson alone or in combination with the knowledge of a POSITA. *See* Pet. 38–39.

4. *Claim 20*

Claim 20 depends from independent claim 9, and further recites “wherein the limits on wagers changes wagering to non-monetary based wagering and compensating the player with the player winnings is compensating the player with no monetary winnings.” Ex. 1001, 17:64–67.

For these limitations, Petitioner argues that Bryson also teaches “provid[ing] the play of games for free” using simulated nonmonetary wagers that do “not affect a player’s [account] balance.” Pet. 39 (citing Ex. 1004, 17:31–37, Fig. 4) (alterations in original). Petitioner further argues a POSITA would have found it obvious to limit the games and gaming options available to the player in the “wagering game presentation” to display Bryson’s free, simulated, and non-monetary-based wagering game

options when restricted in the current location because doing so would have complied with regulations in numerous jurisdictions where “freeplay” or simulated wagering is allowed, but monetary wager-based gaming is not allowed. Pet. 39 (citing Ex. 1003 ¶ 173).

Patent Owner asserts that the ’657 patent discloses the accounting needed to compensate player winnings by compensating with tokens or crediting winnings to a non-monetary account. PO Resp. 16–17. Patent Owner contends that Bryson does not teach “compensating the player with non-monetary winnings” because Bryson’s simulated wagering does not affect a player’s balance, e.g., no compensation, and is silent as to what type of winnings are awarded. *Id.* at 16–18 (citing Ex. 1004, 17:31–37; Ex. 2005 ¶¶ 129–130); PO Sur-reply 5–6. Patent Owner further contends that Bryson teaches away from affecting a player’s balance, if Petitioner proposes such a change, because Bryson explicitly teaches the opposite. PO Resp. 18–19. According to Patent Owner, to remedy the missing limitations in Bryson, a POSITA would have to “modify Bryson’s system to (i) incorporate the entire concept of non-monetary player accounts/balances in addition to monetary player accounts/balances, and (ii) modify simulated wagering from its absolute independence from player balances to some semi-compromised independence only with respect to certain player balances but not to others.” *Id.* at 20 (alteration in original). Dr. Lane expresses similar views. *See, e.g.*, Ex. 2005 ¶¶ 125–131.

Based on the complete record, Petitioner’s arguments and evidence are persuasive. First, we note again that claim 20 recites “no monetary winnings” and does not recite “non-monetary winnings.” Ex. 1001, 17:64–67. However, because this distinction does not alter our findings or

determinations, we apply Patent Owner's arguments regarding "non-monetary winnings" to the actual language of "no monetary winnings" recited in claim 20.

Second, neither of Patent Owner's or Dr. Lane's above-noted views, however, logically follows from Bryson's teachings. Bryson indicates that a player's "balance" is not affected as a part of its disclosed simulated wagers, but the natural understanding of that disclosure is that it is a player's *monetary* balance that is not impacted as a part of Bryson's simulated wagering when monetary gambling is restricted. Although Bryson may not specify any particular type of winnings or compensation that results from simulated wagering, that is not a disclosure that winnings or compensation are expressly excluded, as Patent Owner seems to imply. That the wagers are "simulated" is understood from the context of Bryson's disclosure as simply meaning that monetary gambling does not occur. But it is intrinsic to the very principle of "wagering" that there is some manner of tracking the outcome of such wagers, even if "simulated."

Further, as Patent Owner notes, the Specification of the '657 patent discloses that the "winnings" recited in claim 20 can be in "many forms" including, for example, "points" or "credits." *See* Ex. 1001, 7:43–45. Like the '657 patent, Bryson discloses that non-monetary compensation may be provided in different ways, such as game tokens or tickets for food, merchandise, games, or prizes. Ex. 1004, 30:5–9. It strains credulity to suggest that a skilled artisan would not immediately envision that "simulated wagers" made as a part of gameplay involve the tallying or accounting of some form of metric, e.g., points, so as to permit a player to track their progress based on their "wagering" when monetary gambling is restricted.

Such tallying reasonably constitutes the “winnings,” or a compensation component, that is contemplated by the ’657 patent and claim 20.

We further observe that Patent Owner contends claim 20 requires compensation to affect a non-monetary account. *See* PO Resp. 20. As discussed in Section II.C.3, we do not adopt Patent Owner’s construction that “compensating the player with no monetary winnings” requires affecting, crediting a player’s account. *See supra* Section II.C.3. As such, we are not persuaded that a POSITA must modify Bryson to incorporate non-monetary player accounts or balances, or if done, that this amounts to impermissible hindsight or a teaching away. *See* PO Resp. 20.

Instead, we credit Mr. Nicely’s testimony that a

POSITA would have readily understood that the Gaming system of Bryson would limit the games and Gaming options ... to only include ‘free,’ ‘simulated,’ and non-monetary based wagering game options when restricted in the current location because doing so, would have been necessary to comply with regulations in numerous jurisdictions where ‘freeplay’ or simulated wagering is allowed, but monetary wager-based gaming is not allowed.

Ex. 1003 ¶ 174. As discussed, Bryson contemplates compensation via a variety of methods, including game tokens and tickets. Bryson further teaches “simulated wagering” that does not change a player’s balance. Taken together, this disclosure supports Mr. Nicely’s testimony that a POSITA would understand Bryson provides many variations and options for game play, including free simulated game play that does not require a monetary payout, but nonetheless includes compensation of a different form.

Accordingly, we agree with Petitioner’s arguments (*see, e.g.*, Pet. Reply 1–10), and credit Mr. Nicely’s associated testimony (*see, e.g.*, Ex. 1003 ¶¶ 172–175), that a skilled artisan reasonably would have appreciated from Bryson’s disclosure that its “simulated wagers” as a part of free gameplay include the type of compensation or winnings contemplated by the ’657 patent. Patent Owner’s and Dr. Lane’s opposing views are unpersuasive in failing to account for the reasonable and logical inferences that a person of ordinary skill in the art would have taken from the teachings of the prior art. *See KSR*, 550 U.S. at 418; *see also Perfect Web Technologies, Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1329 (Fed. Cir. 2009) (“hold[ing] that while an analysis of obviousness always depends on evidence that supports the required Graham factual findings, it also may include recourse to logic, judgment, and common sense available to the person of ordinary skill that do not necessarily require explication in any reference or expert opinion”).

Based on the complete record, Petitioner has demonstrated by a preponderance of the evidence that claim 20 would have been obvious over Bryson in combination with the knowledge of a POSITA.

F. Obviousness based on Bryson and Amaitis (Claims 1–8, 14–16, and 21–29)

Petitioner asserts claims 1–8, 14–16, and 21–29 would have been obvious based on the teachings of Bryson and Amaitis. Pet. 40–70. Patent Owner opposes. PO Resp. 21–35, 38–39.

1. *Claim 1*

a) *Petitioner's Contentions*

Independent claim 1 is directed to a method for operating a gaming client that includes the steps of:

receiving, from an administration server, a list of player gaming options for a player in a current location,

wherein the list of player gaming options is limited to gaming options allowed in the current location of the player, and

wherein the gaming options include limits on wagering amounts or types of games to prevent the player from unlawful play in the current location of the player;

displaying, on the gaming client, the list of player gaming options; [and]

monitoring an interface on the gaming client to identify a selection of player gaming options selected by the player in response to the list of player gaming options being displayed on the gaming client;

Ex. 1001, 15:58–16:6.

For these limitations, Petitioner relies on its arguments presented for independent claim 9, discussed above. Pet. 43. For example, Petitioner asserts that Bryson discloses gaming system 600 with game outcome *server* 601 and player management *servers* 602, 603 that communicate with clients 610–628 via network infrastructure 606, 608. *Id.* at 43–44 (citing Ex. 1004, 2:8–19; Ex. 1003 ¶¶ 184–185). Petitioner further argues that Bryson expressly discloses determining a “player’s [] location” to “provide wagering games [and] wagering game attributes.” *Id.* at 46 (citing Ex. 1004, 5:45–47). Petitioner adds that “a POSITA would have understood that it is the location of the player of the game that is relevant to the jurisdictional regulatory concerns and compliant presentation of gaming options disclosed

in Bryson.” *Id.* (citing Ex. 1003 ¶ 189). Further, Petitioner contends that Bryson’s client devices include a display with an interface that allows users to select and participate in games. *Id.* at 47–48 (citing Ex. 1004, 12:31–41; Ex. 1003 ¶ 193). Petitioner adds that a “POSITA would readily understand that this involves monitoring the communication interface on the gaming client (e.g., an ‘input mechanism,’ such as a ‘touch screen’) to identify the selection.” *Id.* at 48 (citing Ex. 1004, 12:37–41).

Claim 1 further teaches “transmitting, to the administrative server, the selection of gaming player option selected by the player to initiate a matching of the player with an at least one competitor.” Ex. 1001, 16:7–10. For this limitation, Petitioner argues that Amaitis discloses “a peer-to-peer wireless gaming system,” shown in Figure 9, that “enabl[es] at least two of [a] plurality of gaming devices to interactively participate in a single gaming activity.” Pet. 49 (citing Ex. 1005 ¶¶ 5, 20; Ex. 1003 ¶ 196) (alterations in original). Petitioner further argues that Amaitis’s customer profile database 926 stores customer profiles 928 that include “information that is indicative of a user’s preferences” for gaming. *Id.* (citing Ex. 1005 ¶¶ 48–49; Ex. 1003 ¶ 198). Petitioner adds that Amaitis matches players based on user specified parameters that are sent to gaming module 920, which queries customer profiles 928 to identify users 912 that may wish to participate in a game. *Id.* at 50 (citing Ex. 1005 ¶ 50, Fig. 9).

Petitioner further contends that

[a] POSITA would have been motivated to apply Amaitis’s teachings of matching competitors for game play to the gaming system of Bryson to enable play between compatible competitors in Bryson’s disclosed games of blackjack, poker, sports wagering, and skill-based solitaire, which are games that

Amaitis's teachings of peer-to-peer gaming are "*particularly desirable*" for. . . . A POSITA additionally would have found it obvious to combine Amaitis's teachings to match players based on selected gaming options with Bryson's teachings to provide only legal gaming options for selection by a user in order to enable peer-to-peer gaming in satisfaction of regulatory requirements of the jurisdiction of the players as taught by Bryson.

Id. at 50–51 (citing Ex. 1003 ¶ 200; Ex. 1004, 13:51–56; Ex. 1005 ¶ 24).

Claim 1 further requires "collecting, via the gaming client, a bet from the player, wherein the bet is within a betting range identified in the selection of player gaming options." Ex. 1001, 16:11–13.

Petitioner argues that Bryson discloses receiving wagers or bets and the verification of player wagers. Pet. 51. Additionally, Petitioner contends that Amaitis discloses user-parameters that include betting minimums or limits. *Id.* Petitioner relies on Mr. Nicely's testimony for the proposition that a POSITA would have included Amaitis's minimum and maximum bets in Bryson's list of gaming options to communicate the potential range of bets allowed in each game and to facilitate legal compliance in the combined system as taught by both references. *Id.* at 52 (citing Ex. 1003 ¶ 206).

Claim 1 further recites

initiating, on the gaming client, a game for the player, wherein the game is based on the selection of player gaming options; and compensating the player with player winnings based on results of the game.

Ex. 1001, 16:14–18.

For these limitations, Petitioner relies on arguments presented for similarly recited limitations in independent claim 9, which are discussed above. Pet. 52; *see supra* SectionII.E.1.c.

b) Patent Owner's Contentions

Patent Owner contends that the asserted combination of Bryson and Amaitis does not teach “wherein the bet is within a *betting range* identified in the selection of player gaming options.” PO Resp. 21–23 (emphasis added). According to Patent Owner, “betting range” should be construed as both a minimum and maximum bet. *Id.* at 21. Patent Owner contends that Bryson does not disclose betting ranges and “Amaitis teaches either a minimum or a maximum that a player would like to play.” *Id.* at 22 (citing Ex. 1005 ¶ 47) (emphasis omitted).

Patent Owner further asserts that Petitioner’s proposed combination of Bryson and Amaitis does not show a reasonable expectation of success in combining the references. *Id.* at 38–39. Patent Owner argues that it “is unclear in the Petition and Nicely Declaration what the combination would be because Petitioner vaguely points to ‘the features of Amaitis’s gaming server for peer-to-peer gaming’ to be employed ‘to the similar architecture of Bryson’s server-based gaming server.’” *Id.* at 38 (citing Pet. 42–43; Ex. 1003 ¶¶ 42–43). Patent Owner contends that the Petition lacks articulation of how Amaitis’s peer-to-peer gaming system would integrate with Bryson’s centralized gaming system without undue experimentation. *Id.* at 38–39; Ex. 2005 ¶ 143.

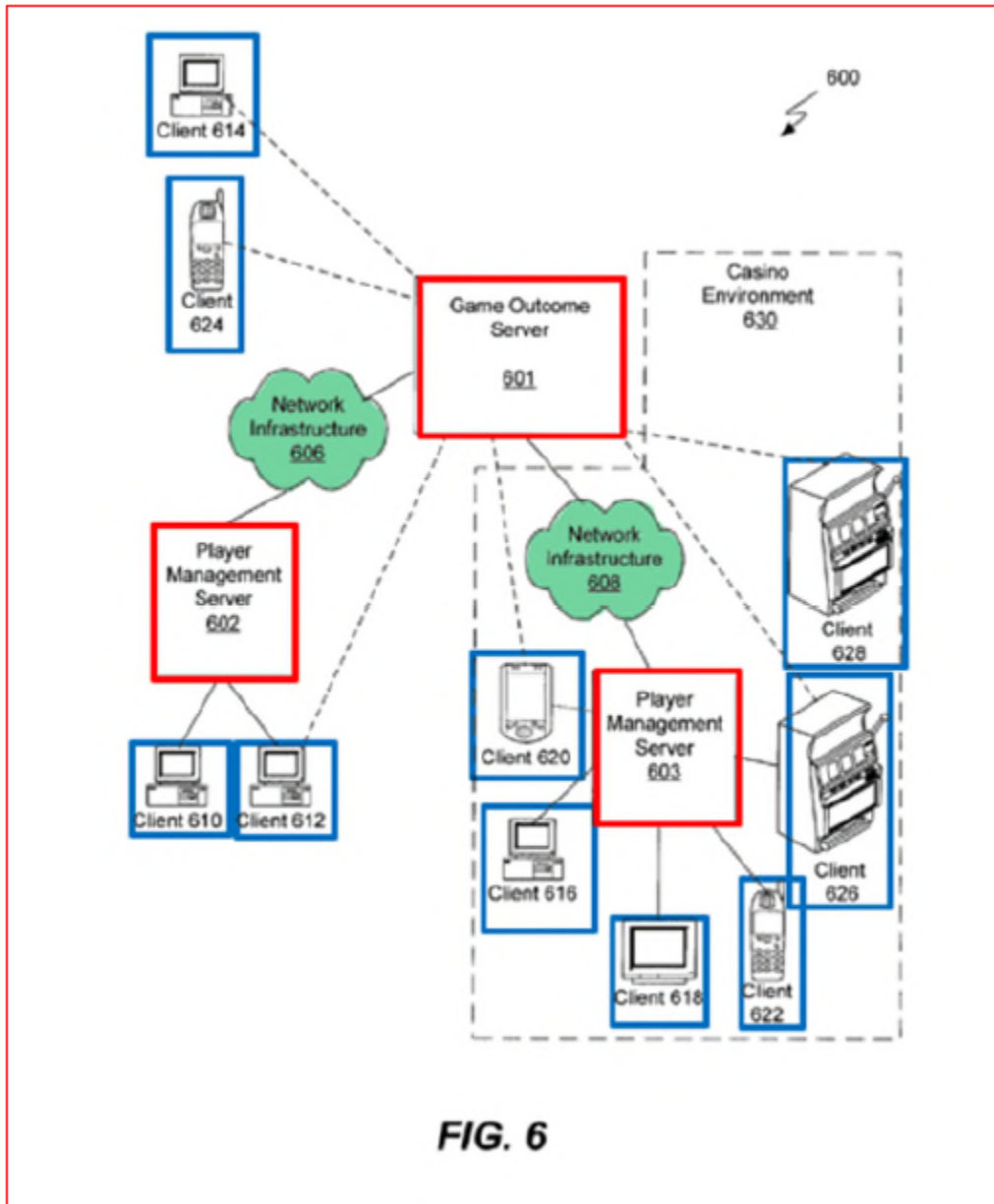
c) Discussion

Based on the complete record, Petitioner’s position is the more persuasive.

Again, claim 1 is directed to a method for operating a gaming client that includes the steps of:

receiving, from an administration server, a list of player gaming options for a player in a current location,
wherein the list of player gaming options is limited to gaming options allowed in the current location of the player, and
wherein the gaming options include limits on wagering amounts or types of games to prevent the player from unlawful play in the current location of the player;
displaying, on the gaming client, the list of player gaming options[.]

Ex. 1001, 15:58–16:2. As Petitioner points out, these limitations recited in independent claim 1 are similarly required by independent claim 9. For similarly recited limitations, we agree with Petitioner’s reasoning and proffered evidence that Bryson’s gaming system discloses those claimed features. *See* Pet. 43–46, 52. For example, Petitioner provides an annotated version of Bryson’s Figure 6 on page 45 of the Petition. Petitioner’s annotated Figure 6 is reproduced below:



Petitioner's annotated version of Figure 6 shows gaming system 600 includes blue boxes around each client 610–628, red boxes around game outcome server 601 and player management servers 602, 603, and marks network infrastructure 606, 608 in green. Pet. 45.

Referring to the annotated figure, Petitioner explains with citations to Bryson's disclosure and Mr. Nicely's testimony that

the game outcome server 601 and the player management servers 602 and 603 of Bryson's Figure 6 communicate with the clients 610-628 via the network infrastructure 606 to transmit games and characteristics, which are received at a client as a "wagering game presentation" and displayed for a user to make selections. *Id.* at 44–45 (citing 2:8–19, 12:56–59; Ex. 1003 ¶¶ 184–186). Petitioner adds Bryson teaches "for online implementations, a player may be presented with a web page having wagering game options" on one of Bryson's disclosed gaming clients. *Id.* (citing Ex. 1004, 7:53–56; Ex. 1003 ¶ 186) (emphasis omitted); *see also* Ex. 1004, 12:34–37 ("[T]he client may . . . include a display device for viewing the game and input mechanism for making choices related to the play of a game.").

In addition, we note (as we did for claim 9) that in Bryson's Figure 1 flowchart, the received information is used to authenticate the user/user's device in step 105. Ex. 1004, Fig. 1. Bryson also teaches the authentication step 105 may involve device authentication and/or location determination. *Id.* at 6:25–27. In that way, we find that Bryson's system may make jurisdictional compliance determinations at step 105, which effectively limit the gaming options available to the user based on the user device's current location. Moreover, for step 125 shown in Figure 1, Bryson discloses that the

determined wagering game presentation is then provided to the player. (Step 125.) Step 125 may vary according to various factors, including the characteristics of the player community, *the type and location of the device used for gaming and the provisioning mode*. For example, for online implementations, a player may be presented with a web page having wagering game options, a characteristic layout, colors, graphics, etc., corresponding to the player community. Featured games, which may be displayed prominently on the web page, may be quite

different from one community to another. If the same wagering game themes are presented to more than one community, wagering game characteristics (such as denomination, volatility, etc.) may be different.

Ex. 1004, 7:49–61 (emphasis added). As such, Bryson supports Petitioner’s position that Bryson’s presentation of games and options provided to a user will depend on device location so that wagering games and/or wagering game attributes may be provided according to the legal requirements of a device’s jurisdiction. Pet. 33 (citing Ex. 1004, 8:24–29); Ex. 1003 ¶¶ 152–155.

We further find that Bryson teaches the step:

monitoring an interface on the gaming client to identify a selection of player gaming options selected by the player in response to the list of player gaming options being displayed on the gaming client[.]

Ex. 1001, 16:3–6. Bryson’s client devices include a display with an interface that allows users to select and participate in games. The interface may include a display for viewing the game and input mechanism, e.g., keyboard, mouse, or touchscreen, that a player uses to select a wager amount, initiate a game, select paylines, hold/draw cards, and select a game.

Ex. 1004, 12:34–41. Further, we note that Mr. Nicely testifies that a POSITA would understand that Bryson’s system would monitor the communication interface on the gaming client to identify a player’s selection. Ex. 1003 ¶ 193. We credit Mr. Nicely’s testimony, which is supported by the record and undisputed with regard to this limitation. *See* PO Resp. 21–35, 38–39.

We further agree with Petitioner that Bryson in combination with Amaitis teaches or suggests “transmitting, to the administrative server, the

selection of gaming player option selected by the player to initiate a matching of the player with an at least one competitor.” Ex. 1001, 16:7–10.

As discussed above, Bryson’s gaming system discloses the transmission of client game option selections from the client interface to the servers. *See* Ex. 1004, Fig. 1, Fig. 6, 8:57–58 (“In step 130, a player’s wagering game selections and credit are received.”). Further, we find that Amaitis discloses peer-to-peer gaming. Amaitis’s Figure 9 is reproduced below.

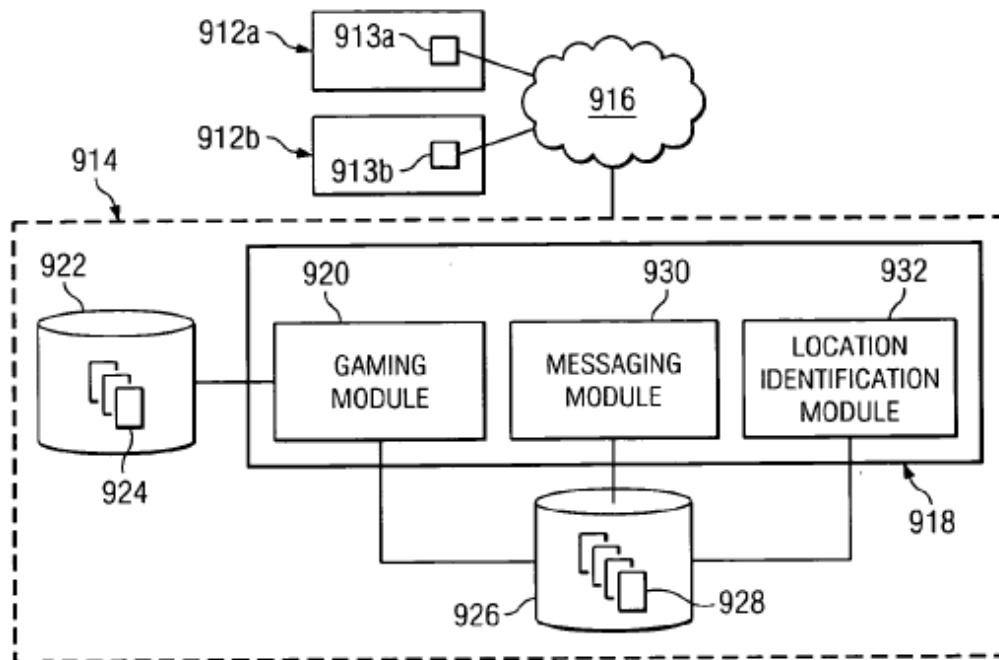


FIG. 9

Figure 9 depicts a peer-to-peer wireless gaming system. Ex. 1005 ¶ 31. Gaming system 910 includes users 912a and 912b who access gaming system 910 by way of gaming devices 913a and 913b. *Id.* Gaming devices 913 transmit and receive gaming information to and from gaming service provider 914. *Id.* Additionally, Amaitis matches users 912 for new games

or existing games via user parameters such as betting minimums or limits. *Id.* ¶ 47. Amaitis teaches that “[p]rocessor 918, and specifically gaming module 920, may use these and other user-specified parameters as search criteria when identifying potential gaming activities that may be displayed to the user 912 on a gaming device 913.” *Id.* As a further example, Amaitis teaches that

gaming module 920 may query customer profiles 928 to identify additional players that may be willing to play with a first user 912a who is initiating a gaming activity. For example, if a first user 912a of first gaming device 913a desires to initiate a blackjack game, the first user 912a may specify the parameters of the game and send a request to gaming module 920 to generate a gaming activity having the characteristics specified by the first user 912a. Additionally or alternatively, the first user 912a may specify one or more participant characteristics or other criteria that may be used to identify additional players. For example, first user 912a may specify that the user only wishes to play with other high rollers, other celebrities, or other senior citizens, where appropriate. *Gaming module 920 may then query customer profiles 928 to identify additional users 912 that may wish to participate in the game initiated by user 912a.*

Id. ¶ 50 (emphases added).

Petitioner further explains that

a POSITA would have been motivated to apply Amaitis’s teachings of matching competitors for game play to the gaming system of Bryson to enable play between compatible competitors in Bryson’s disclosed games of blackjack, poker, sports wagering, and skill-based solitaire, which are games that Amaitis teaches peer-to-peer gaming are ‘*particularly desirable*’ for.”

Pet. 50 (citing Ex. 1003 ¶ 200; Ex. 1004, 13:51–56; Ex. 1005 ¶ 24).

Petitioner explains further that “A POSITA would have been motivated to combine Bryson with Amaitis in order to improve Bryson’s system by

including the advantageous multi-player gaming activities and peer-to-peer gaming disclosed in Amaitis, such as competitor matching and ‘buddy lists’ of competitors.” *Id.* at 42 (citing Ex. 1003 ¶ 177). We determine that Petitioner’s explanations are supported by the citations to the disclosures in both Bryson and Amaitis, and consistent with the testimony provided by Mr. Nicely. Ex. 1003 ¶¶ 175–180; *see* Ex. 1004, 13:51–56; Ex. 1005 ¶ 24.

Additionally, we observe that Mr. Nicely’s testimony supports Petitioner’s position that a POSITA would have had a reasonable expectation of success employing the features of Amaitis’s gaming server for peer-to-peer gaming with similar architecture in Bryson’s server-based gaming server. Pet. 42–43 (citing Ex. 1003 ¶¶ 179–180). Mr. Nicely explains that

Bryson and Amaitis are directed to similar games using similar Client-Server architectures, which “include but are not limited to sports wagering or wagering on other types of events,” “card games (e.g., poker and blackjack),” “slot games,” and “games of skill such as solitaire,” which can be played from similar Client devices including a home PC, mobile device, or casino gaming machine via a Gaming Server-based architecture. EX[1004] 13:51-56, 8:18-23; EX[1005] ¶22, 27.

Ex. 1003 ¶ 179 (emphasis omitted). Mr. Nicely further explains that Figure 6 of Amaitis shows an “exemplary Client-Server interaction” with steps 612, 614, 616, 618, and 620. *Id.* (citing Ex. 1005 ¶¶ 103–105, Fig. 6). Mr. Nicely asserts that these steps show how, in Amaitis, data is transmitted back and forth during gaming activities between a gaming communication device and server controlled by the gaming service provider. *Id.* (citing Ex. 1005 ¶¶ 80, 110). Mr. Nicely observes that these features are similar to how Bryson’s system operates.

Dr. Lane and Patent Owner contend that Petitioner has failed to address how Amaitis's features would be included in Bryson's gaming system because Bryson's centralized system is different from Amaitis's decentralized system. PO Sur-reply 18 (“[B]oth the Petition and Petitioner’s reply failed to address the disharmony between Amaitis’s decentralized peer-to-peer system and Bryson’s centralized architecture.”); PO Resp. 38–39.

We disagree. Turning to Amaitis, Figure 6 of Amaitis is provided below:

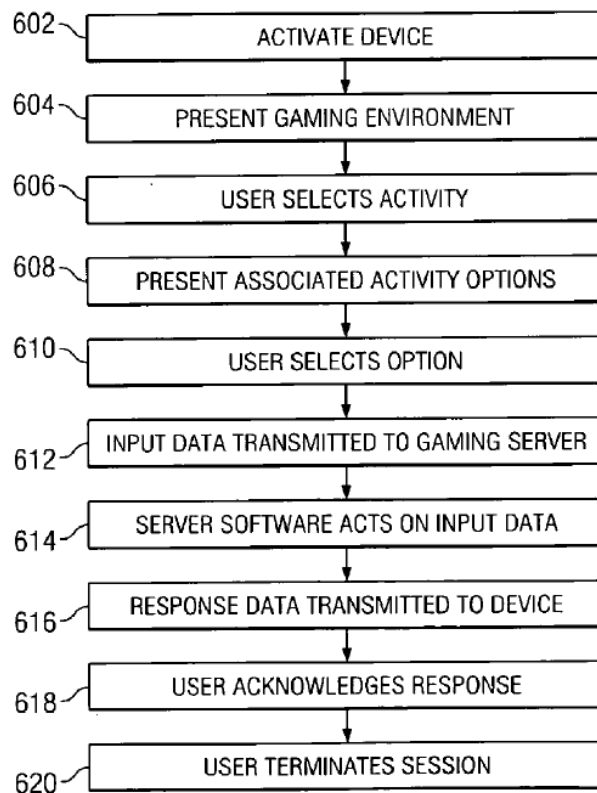


FIG. 6

Figure 6 is a flow chart depicting the steps in a gaming method employed by Amaitis's system. Ex. 1005 ¶¶ 17, 100. Amaitis teaches that in step 604, the user is presented with a gaming environment and gaming options including table games, slots, video poker, etc. *Id.* ¶ 102. In step 606, "the user selects an activity, such as a particular casino table game. In step 608, the user is presented with one or more options related to the selected activity. In step 610, the user selects an option." *Id.* ¶ 103. Then, "[i]n step 612, the software resident on the gaming communication device accepts the option input by the user and *transmits the input data to the software resident at the gaming server*. In step 614, the gaming server software acts on the input data." *Id.* (emphasis added). In step 616, the gaming server software prepares a response to the user's input and then the user acknowledges the response in step 618 (e.g., user acknowledging that he has won a game). *Id.* ¶ 105.

Given at least the disclosure in Amaitis discussed above, we agree with Mr. Nicely and Petitioner that there are several similarities between the systems described in Amaitis and Bryson, which can be seen in steps 125–150 in Figure 1 of Bryson compared to Figure 6 of Amaitis. *See* Ex. 1004, Fig. 1; Ex. 1005 ¶¶ 100–105, Fig. 6. That being so, the record better supports Mr. Nicely's testimony that a POSITA would understand Amaitis's methods of player-matching would and could have been implemented as routine software in Bryson. Ex. 1003 ¶¶ 179–180.

Dr. Lane's testimony to the contrary is not persuasive. Dr. Lane asserts that the Petition is unclear and only provides general concepts without specific discussion regard features to be combined. Ex. 2005 ¶ 143. However, the Petition expressly asserts that Amaitis teaches a player

matching process performed by gaming module 920 that may query customer profiles 928 to identify additional users 912 for game play. Pet. 49–50. Petitioner further relies on the testimony of Mr. Nicely, who testifies that Amaitis’s system is compatible with Bryson’s creation of player communities because these players “compete against each other in **Multi-Player** games that are of common interest to them.” Ex. 1003 ¶ 200 (citing Ex. 1004, 8:11–14). Moreover, Mr. Nicely sets forth the similarities between the system architectures employed by Amaitis and Bryson, which Dr. Lane has not sufficiently addressed. Ex. 1003 ¶ 179; Ex. 2005 ¶ 143.

We note that there is no disagreement between the parties as to the level of ordinary skill in the art. In that respect, there is no dispute that a skilled artisan in this case has a background in computer engineering, or similar discipline, and experience in the development of gambling game hardware and software functionality. *See supra* § II.B. Patent Owner does explain credibly why a skilled artisan with that relevant education and experience would have been unable to address routine implementation issues or technical difficulties that may arise in combining the teachings of the pertinent prior art, all of which are directed to similar matters of network based interactive gaming.

Based on the complete record, we determine that Petitioner has sufficiently shown how the combination of Bryson and Amaitis teach or suggest “transmitting, to the administrative server, the selection of gaming player option selected by the player to initiate a matching of the player with an at least one competitor.” Ex. 1001, 16:7–10.

Claim 1 further recites:

collecting, via the gaming client, a bet from the player, wherein the bet is within a betting range identified in the selection of player gaming options[.]

Ex. 1001, 16:11–13.

We determine that Petitioner has also sufficiently explained how Bryson in combination with Amaitis teaches or suggests this limitation. Patent Owner contends that the term “betting range” must be construed to include both a minimum and a maximum in the range. Patent Owner contends further that Amaitis teaches either a minimum or a maximum, but does not disclose a range with both a maximum and minimum. PO Resp. 22 (citing Ex. 1005 ¶ 47).

We have not adopted Patent Owner’s construction and do not construe “betting range” to have both a minimum and maximum. *See supra* Section II.C.2. That being so, Patent Owner’s arguments based on its proposed construction are not persuasive. PO Resp. 22–23. Moreover, we note there is no dispute that Amaitis discloses user-parameters with betting minimums or limits. Pet. 51; PO Resp. 22 (“Amaitis teaches either a minimum or a maximum that a player would like to play.” (emphasis omitted)). Amaitis expressly teaches that “[u]ser parameters may also specify particular betting minimums or limits that the user 912 would like to play.” Ex. 1005 ¶ 47. We find persuasive Mr. Nicely’s testimony that a POSITA would have included Amaitis’s minimum and maximum bets in Bryson’s list of gaming options to communicate the potential range of bets allowed in each game and to facilitate legal compliance in the combined system as taught by both references. Ex. 1003 ¶ 206.

Claim 1 further recites

initiating, on the gaming client, a game for the player, wherein the game is based on the selection of player gaming options; and compensating the player with player winnings based on results of the game.

Ex. 1001, 16:14–18. Petitioner relies on its discussion of Bryson for similar limitations recited in claim 9. Pet. 52 (citing Ex. 1004, 13:48–50, 18:20–25); Ex. 1003 ¶¶ 207, 209. Patent Owner does not address these specific limitations. *See* PO Resp.

Based on the complete record, we adopt Petitioner’s arguments and evidence regarding these limitations, particularly because the disclosure in Bryson are consistent with and support Petitioner’s position and Mr. Nicely’s testimony. *See* Ex. 1004, 13:48–50, 18:20–25; Ex. 1003 ¶¶ 207, 209.

Based on the complete record, we determine Petitioner has demonstrated by a preponderance of the evidence that claim 1 would have been obvious over the combination of Bryson with Amaitis.

2. *Claim 21*

Independent claim 21 recites similar limitations discussed above with regard to independent claims 1 and 9. For these limitations, Petitioner relies on arguments discussed with respect to independent claims 1 and 9. Pet. 61–62.

Claim 21 further recites “at least one gaming server . . . configured to . . . monitor the game; and transmit data about the game to the administration server.” Ex. 1001, 18:23–26.

For these limitations, Petitioner asserts that the “at least one gaming server” is taught by Bryson’s player management server that includes both

an administration server and gaming server, and that the player management server hosts a website portal that allows the player to access their account and to play games. Pet. 63 (citing Ex. 1004, 13:43–48; Ex. 1003 ¶¶ 258–259). Separately, Petitioner adds that Bryson’s game outcome server 601 monitors and transmits game outcome data to player management servers 602 and 603. *Id.* (citing Ex. 1004, 21:23–42; Ex. 1003 ¶¶ 258–263).

Patent Owner argues that “Bryson teaches maintaining a game-state as a singular snapshot, and not as continued oversight and tracking. Bryson teaches that the state of the game is saved for the purposes of reconnecting if a game connection is lost.” PO Resp. 23, 24 (“A single snapshot is not monitoring, and Bryson does not teach ‘to continually oversee and keep track of.’”); Ex. 2005 ¶¶ 137–138.

We note that claim 21 does not recite the specific manner in which the monitoring occurs. As discussed in our claim construction section, we do not agree that the plain and ordinary meaning of “monitor” is “to continually oversee and keep track of.” *See supra* Section II.C.1. Instead, we find Bryson discloses game outcome server 601 that “maintain[s] a current state of the game during game play” so that, if a connection with a client device is lost, the game may be restored to its state prior to the lost connection. *See* Ex. 1004, 21:5–13 (cited at Pet. 57). Even if a single snapshot, Bryson’s system nonetheless oversees or keeps track of the game play, which we find to satisfy the “monitor the game” limitation of claim 21.

3. *Claim 26*

Petitioner asserts that independent claim 26 would have been obvious over the teachings of Bryson and Amaitis. *See* Pet. 66–69. Patent Owner opposes. PO Resp. 24–35.

Patent Owner contends that the Petition fails to satisfy Rules 100(b) and 104(b), and that Petitioner has proposed “facially defective means-plus-function constructions that fail to identify adequate corresponding structure[.]” *Id.* at 24–29. Patent Owner further contends that Petitioner’s constructions ignore algorithmic structure for “means for compensating a player with player winnings based on the results of the game” and that Petitioner’s invalidity analysis is legally defective. *Id.* at 29–35.

As a threshold issue, we disagree with Patent Owner that Petitioner has ignored or otherwise inadequately construed the means-plus-function limitations recited in claim 26. *See supra* Section II.C.5. As set forth in the claim construction section, we determine that Petitioner has satisfied the requirements of our rules and further identified the functions and corresponding structures for each means-plus-function limitation recited in claim 26. *Id.*

Next, we discuss each limitation recited in claim 26 below.

a) *means for receiving, from an administration server*

Claim 26 is directed to a system that includes:

means for receiving, from an administration server, a list of player gaming options for a player in a current location, wherein the list of player gaming options is limited to gaming options allowed in the current location of the player, and wherein the gaming options include limits on wagering amounts or types of games to prevent the player from unlawful play in the current location of the player[.]

Ex. 1001, 18:43–45.

Petitioner asserts that Bryson’s gaming clients implement an *algorithm* (i.e., corresponding structure) to receive, from an administration server, a list of player gaming options for a player in a current location. Pet.

67; Ex. 1003 ¶¶ 271–273 (citing Ex. 1004, 12:42–47, Fig. 6). In other words, Petitioner asserts that Bryson’s gaming clients execute software that performs the recited function. Petitioner further relies on its discussion of claims 1 and 9 for Bryson’s teaching that the gaming options restrict wagers to prevent players from unlawful play in the current location of the player. Pet. 67. Mr. Nicely testifies that Bryson includes many different kinds of clients in a Client-Server architecture that allows a gaming client to receive a list of player gaming options from an administration server. *See* Ex. 1003 ¶¶ 271–273; Ex. 1004, Fig. 6. Mr. Nicely further explains, with reference to his testimony for claims 1 and 9, that Bryson’s gaming options are limited to the options allowed in the current location of the gaming client. Ex. 1003 ¶¶ 273–275.

Patent Owner does not contest that Bryson teaches this specific limitations, but argues generally that Petitioner has not adequately explained its invalidity analysis. *See* PO Resp. 29–35.

We find that Petitioner’s analysis is sufficient. We are persuaded that Bryson’s disclosure of gaming clients in Bryson’s client-server architecture (Ex. 1004, Fig. 6), teaches or suggests the corresponding structure of an algorithm in software form that performs the function of receiving, from a server, a list of player gaming options for a player in a current location. As discussed, Bryson teaches that in step 125 of Figure 1, wagering game options are presented to the player, which may depend on various factors such as “the characteristics of the player community, the type and location of the device used for gaming and the provisioning mode.” *Id.* at 7:49–53. “[T]he presentation may depend on device location. For example, wagering games and/or wagering game attributes may be provided according to the

legal requirements of a device's jurisdiction. Wagering limits, [and] wagering game time limits, may be imposed according to jurisdictional requirements." *Id.* at 8:24–29. We find this sufficient to show that Bryson's gaming clients in Bryson's client-server system execute software that receives a list of player gaming options for a player in a current location.

b) means for displaying

Claim 26 further recites "means for displaying, on the gaming client, the list of player gaming options[.]" Ex. 1001, 18:52–53.

Petitioner refers to its analysis provided for claim 1. Pet. 67 (citing Ex. 1003 ¶ 275). Mr. Nicely testifies that Bryson's gaming clients display the list of player gaming options.

We agree. As shown in Figure 6, Bryson's gaming clients include slot machines and computers with a monitor. Further, Bryson's client devices include a display with an interface that allows users to select and participate in games. The interface may include a display for viewing the game and an input mechanism, e.g., keyboard, mouse, or touchscreen, that a player uses to select a wager amount, initiate a game, select paylines, hold/draw cards, and select a game. Ex. 1004, 12:34–41. Thus, we determine that Petitioner has sufficiently identified corresponding structure, e.g., slot machines and computers shown as Bryson's gaming clients, that perform the function of displaying, on the gaming client, the list of player gaming options.

c) means for monitoring

Claim 26 further recites:

means for monitoring an interface on the gaming client to identify a selection of player gaming options selected by the player in response to the list of player gaming options being displayed on the gaming client[.]

Ex. 1001, 18:54–57.

For these limitations, Petitioner cites to Mr. Nicely’s testimony (Pet. 67) where he testifies that

(1) Function

As discussed in § IX.B.2)f) above as to limitation 1[e], Bryson discloses a Server monitoring an interface on the Gaming Client to identify a selection of player Gaming options selected by the player in response to the list of player Gaming options being displayed on the Gaming Client.

(2) Structure

Bryson discloses “server-based gaming implementations” (EX[1004] 5:37-39) that use “a processor” or “multiple processors” that implements an algorithm to “allow an operator to control many aspects of a player’s gaming experience,” including the functions of limitations 26[e] and 26[j]. EX[1004] 5:8-12, 32-36.

Ex. 1003 ¶¶ 276–277 (emphasis omitted).

Patent Owner does not provide arguments specific to this limitation beyond those discussed above.

Again, we determine that Bryson’s client devices include a display with an interface that allows users to select and participate in games. The interface may include a display for viewing the game and input mechanism. Ex. 1004, 12:34–41. With respect to claim 1, Mr. Nicely testifies that a POSITA would understand that Bryson’s system, e.g., server, would monitor the communication interface on the gaming client to identify a player’s selection. Ex. 1003 ¶ 193. We credit Mr. Nicely’s testimony, which is supported by the record and undisputed with regard to this limitation. *See*

PO Resp. Moreover, we agree with Petitioner that Bryson’s server executes an algorithm that monitors the interface on the client to allow a player access to gaming options and to collect a player’s game option selection.

d) means for transmitting

Claim 26 further recites:

means for transmitting, to the administrative server, the selection of gaming player option selected by the player to initiate a matching of the player with an at least one competitor[.]

Ex. 1001, 18:58–61.

Petitioner relies on arguments and evidence presented regarding a similar limitation recited in claim 1 and further relies on Mr. Nicely’s testimony. Pet. 68. Mr. Nicely testifies that “Bryson discloses a Gaming Client transmitting, to the administrative Server, the selection of Gaming player option selected by the player to initiate a matching of the player with an at least one competitor.” Ex. 1003 ¶ 278. Mr. Nicely also refers to his testimony provided for “claim 1[f],” which recites “transmitting, to the administrative server, the selection of gaming player option selected by the player to initiate a matching of the player with an at least one competitor.” *Id.* ¶¶ 194–200. There, Mr. Nicely explains, as we have discussed with regard to claim 1, that “a POSITA would have been motivated to apply Amaitis’s teachings of matching competitors for game play to the gaming system of Bryson to enable play between compatible competitors[.]” *Id.* ¶ 200. Mr. Nicely also testifies that “Amaitis discloses a gaming system that matches players by ‘identify[ing] first user 912a as a potential participant based on the user’s customer preference profile.” *Id.* ¶ 198.

Based on the complete record, we understand Mr. Nicely's testimony to support Petitioner's argument that Bryson's system in combination with Amaitis's discloses a corresponding structure of software, i.e., algorithm, that transmits, to the administrative server, the selection of gaming player option selected by the player to initiate a matching of the player with an at least one competitor. Bryson teaches that clients transmit selected game options to the server. *See* Ex. 1004, Fig. 1 (step 130). And, under Petitioner's proposed modification, Bryson's system would further include player matching methods described by Amaitis. Amaitis matches users 912 for new games or existing games via user parameters such as betting minimums or limits. Ex. 1005 ¶ 47. Amaitis further teaches that "[p]rocessor 918, and specifically gaming module 920, may use these and other user-specified parameters as search criteria when identifying potential gaming activities that may be displayed to the user 912 on a gaming device 913." *Id.*

Patent Owner does not contest this limitation specifically, but argues generally that Petitioner has not adequately explained its invalidity analysis and that Petitioner has failed to show a POSITA would or could have combined Bryson and Amaitis. *See* PO Resp. 29–35, 38–39. However, we are not persuaded that Petitioner has failed to adequately explain why or how a POSITA would have combined the teachings of Bryson and Amaitis. *See supra* II.F.1.c.; PO Resp. 38–39.

e) means for collecting a bet

Claim 26 further recites “means for collecting a bet from the player, wherein the bet is within a betting range identified in the selection of player gaming options[.]” Ex. 1001, 18:62–64.

Petitioner and Mr. Nicely refer to their discussion of a similar limitation in claim 1. Pet. 68; *see* Ex. 1003 ¶¶ 280–281. For claim 1, as discussed above, Mr. Nicely testifies that

Bryson discloses “a method for receiving cash from a player.” EX[1004] 23:19-21. Within a casino, “a player may use the gaming machines anonymously” to deposit cash “without having to establish an account with the casino.” *Id.* 23:24-26. Otherwise, “an account may be established for a user that allows the user to maintain funds for wagering.” *Id.* 23:29-32. “As part of the account management, the player management servers may be operable to allow funds to be deposited and transferred from the account,” including “electronically” or “via paper check”: In a particular embodiment, the transfers of funds into and out of the account may be performed electronically. The electronic fund transfers may involve credit cards, debit cards, bank accounts, wire transfers, etc. Other types of fund transfers, such as via paper check, may also be employed. *Id.* 13:9-11.

Ex. 1003 ¶ 201. We find Petitioner’s arguments to be persuasive that Bryson’s gaming machines or clients may perform the function of collecting player bets.

Patent Owner asserts, as it did with claim 1, that a betting range requires a minimum and maximum range. We have not adopted Patent Owner’s construction of “betting range” and do not require both a minimum and maximum range. *See supra* II.C.2. Moreover, Amaitis expressly teaches that “[u]ser parameters may also specify particular betting minimums or limits that the user 912 would like to play.” Ex. 1005 ¶ 47.

As such, Petitioner’s arguments and evidence are also persuasive in this respect.

f) means for initiating a game

Claim 26 further recites “means for initiating a game for the player, wherein the game is based on the selection of player gaming options[.]”
Ex. 1001, 18:65–67.

For this limitation, Petitioner and Mr. Nicely refer to their discussion of a similar limitation recited in claim 1. Pet. 69; Ex. 1003 ¶ 283. For that limitation, Mr. Nicely explains that

Bryson further discloses that the game may be initiated on the Gaming Client itself: In particular embodiments, the gaming application may be configured to allow the client to establish a gaming session where a game is played on the client. EX[1004] 18:30-32 (emphasis added) To the extent that “initiating, on the gaming client” further requires that the gaming application itself resides on the Client, Bryson also discloses that configuration: *[T]he game outcome server 601 may be operable to provide a gaming application to a client, via a download if necessary, that allows a wager-based game to be played on the client.* In some instances, a download may not be necessary because the gaming application may already reside on the client. EX[1004] 18:20-25 (emphasis added); *see also Id.* 19:64-67 (“[T]he game outcome server 601 may download a gaming application to the casino-type gaming machine 628 where the gaming application is executed on the gaming machine.”) (emphasis added); *Id.* 20:45-49 (“stand-alone casino-type gaming machines 626 and 628 may [...] execute the gaming application”).

Ex. 1003 ¶¶ 207–208 (emphases added) (second through fourth alterations in original).

Based on the complete record, Petitioner’s arguments are persuasive. Bryson teaches in step 130 of the Figure 1 flowchart that the system receives

“player selections and credit” and then provides “selected wagering game(s)” in step 135. Ex. 1004, Fig. 1. Further, we credit Mr. Nicely’s testimony that Bryson teaches a gaming application executed on the client device that allows wager-based game to be initiated and played on the client. Ex. 1003 ¶¶ 207–208. We find this sufficient to teach the function and corresponding structure for this limitation.

g) means for compensating the player with player winnings based on results of the game

Claim 26 is directed to a system that includes a “means for compensating the player with player winnings based on results of the game.” Ex. 1001, 19:1–2.

Patent Owner argues that Petitioner failed to provide a proper invalidity analysis. PO Resp. 30–35. Patent Owner contends that the ’657 patent requires a series of steps for the algorithmic structure as shown in Figure 6 of the ’657 patent. Patent Owner further argues that the Petition and Mr. Nicely’s testimony do not show that the prior art discloses the same or equivalent algorithmic structure to what the ’657 patent describes. *Id.* at 32–35.

We disagree with Patent Owner. For this limitation, Petitioner and Mr. Nicely refer to their discussion of a similar limitation recited in claim 1. Pet. 69; Ex. 1003 ¶¶ 285–286. With regard to claim 1, Mr. Nicely testifies that

Bryson discloses compensating the player with player winnings. Bryson further discloses that, “[d]uring game play, the player management servers, 602 and 603, may maintain and update a player’s balance in their account as a result of their gaming activities,” such as the gaming activities reported in the data received from the game outcome Server 601. EX[1004] 13:20–

37, 43-50 (emphasis added); *see also Id.* 19:1-4 (“As a result of gaming activities generated on the game outcome server 601, a balance of the transferred funds may be increased or decreased depending on an award associated with each gaming activity.”) (emphasis added); 23:32-34 (“As [sic] wager-based game is played, wins and losses from the wager-based game may be reflected in the account balance.”) (emphasis added). Bryson also teaches that the player management Servers, 602 and 603, calculate the results and impacts of the game outcomes on the player’s account balance, which enables a player to play multiple simultaneous games. *Id.* 13:66-14:10.

Ex. 1003 ¶ 209 (emphasis omitted) (alteration in original). Mr. Nicely testifies that Bryson’s player management servers 602 and 603 maintain and update a player’s balance in their account as a result of their gaming activities, and further calculate the results and impacts of the game outcomes on the player’s account balance. *Id.* (citing Ex. 1004, 13:20–37, 13:43–50, 13:66–14:10). As such, we understand Petitioner and Mr. Nicely to identify at least Bryson’s player management servers as executing software (e.g., algorithms) that compensate a player with player winnings based on the results (e.g., outcome) of the game. We find this sufficient to teach the function and corresponding structure for this limitation.

h) Conclusion

Based on the complete record, we determine Petitioner has demonstrated by a preponderance of the evidence that claim 26 would have been obvious over the combination of Bryson with Amaitis.

4. Dependent claims 2–8, 14–16, 22–25, and 27–29

Patent Owner does not provide arguments specific to dependent claims 2–8, 14–16, 22–25, and 27–29 beyond those presented and discussed for independent claims 1, 9, and 26. *See PO Resp.*

Based on the complete record, we agree with Petitioner’s positions based on the explanation and evidence provided in the Petition, and adopt them as our own. *See* Pet. 52–60, 64–66, 69–70.

G. Obviousness based on Bryson and Frenkel – Claims 12 and 13

Petitioner asserts claims 12 and 13 would have been obvious based on the teachings of Bryson and Frenkel. Pet. 70–74.

Claim 12 depends from claim 9 and further recites “wherein the plurality of program instructions when executed by the one or more processors further cause the one or more machines to perform a risk assessment of the player.” Ex. 1001, 17:22–25.

Claim 13 depends from claim 12 and further recites:

wherein the plurality of program instructions when executed by the one or more processors further cause the one or more machines to perform the risk assessment by:

collecting player information, wherein the player information comprises player gaming behavior;

evaluating player gaming behavior for prohibited activity;
and

eliminating the player based on the prohibited activity.

Id. at 17:26–34.

For both claims 12 and 13, Petitioner relies on Frenkel’s disclosure that “the gaming network operator may employ collusion detection software that monitors player action.” Pet. 72–73 (citing Ex. 1007 ¶ 35; Ex. 1003 ¶ 299). Petitioner adds that

[i]t would have been obvious to a POSITA to combine Frenkel’s teaching that a gaming network operator may employ collusion detection software that monitors player actions for the multi-player games specifically disclosed by Bryson, such as poker, and blackjack This would have yielded the predictable result

of enabling Bryson's system to perform risk management of the players and their client devices in the gaming network, thereby increasing player-trust and overall usage of the combined system.

Id. at 71 (citing Ex. 1003 ¶ 294).

Based on the complete record, we find Petitioner provides sufficient reasoning as to why a person of ordinary skill in the art would have combined the teachings of Bryson and Frenkel so as to arrive at the system set forth in claims 12 and 13. *See* Pet. 74–78. In particular, Petitioner proposes that “Frenkel discloses implementing the well-known concept of risk management for a gaming operator in the context of networked gaming system for peer-to-peer gaming.” *Id.* at 70 (citing Ex. 1003 ¶¶ 290–293; Ex. 1007 ¶ 35). Petitioner also reasons:

It would have been obvious to a POSITA to combine Frenkel's teaching that a gaming network operator may employ collusion detection software that monitors player actions for the multi-player games specifically disclosed by Bryson, such as poker, and blackjack. EX[1003] ¶294. This would have yielded the predictable result of enabling Bryson's system to perform risk management of the players and their client devices in the gaming network, thereby increasing player-trust and overall usage of the combined system. *Id.* (citing EX[1056] 6, 11). Moreover, Frenkel's collusion monitoring teachings would further one of Bryson's stated goals to “prevent cheating and satisfy regulatory requirements.” *Id.* (citing EX[1004] 25:55-60).

Id. at 71.

Although acknowledging Petitioner's expressed reasoning to combine the teachings of the prior art, Patent Owner contends that the Petition and Mr. Nicely provide cursory arguments for why a POSITA may have wanted “Bryson's system to perform risk management” based solely on the ideas—not the technology—taught by Frenkel. PO Resp. 41 (citing Pet. 70–72; Ex.

1003 ¶¶ 290–293). Patent Owner contends that Petitioner has not explained how Bryson’s system would be modified to incorporate Frenkel’s collusion detection software. *Id.* at 42; PO Sur-reply 18; Ex. 2005 ¶ 144. Patent Owner adds that Mr. Nicely does not discuss *how* the combination would exist in the Bryson-Frenkel combination. PO Resp. 42 (citing Ex. 1003 ¶ 294).

Patent Owner’s arguments are unpersuasive. Petitioner relies on components or aspects of Frenkel’s gaming system to simply operate as they are intended to in conjunction with Bryson’s gaming system. Although during oral argument Patent Owner expressed that it was not making a “bodily incorporation argument” (*see, e.g.*, Tr. 93:4–6), that is seemingly the thrust of Patent Owner’s position in condemning the Petition for not specifically identifying where particular components would be situated in a system based on the combined teachings of the prior art. There is no requirement, however, in an obviousness inquiry of a showing of how any particular feature may be directly or bodily incorporated into any particular system or device. *See Allied Erecting & Dismantling Co. v. Genesis Attachments, LLC*, 825 F.3d 1373, 1381 (Fed. Cir. 2016) (quoting *In re Keller*, 642 F.2d 413, 425 (CCPA 1981)) (“The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference[.]”)

We further reject Patent Owner’s argument that a skilled artisan would not have reasonably expected success in implementing components or aspects of Frenkel into Bryson’s system so as to function for their intended purpose. Patent Owner does not explain credibly why a POSITA would have been unable to address routine implementation issues or technical

difficulties that may arise in combining the teachings of the pertinent prior art, all of which are directed to similar matters of network based interactive gaming.

We have fully considered Patent Owner’s arguments made in challenging the propriety of combining the teachings of Bryson and Frenkel, and the declaration testimony of Dr. Lane on which Patent Owner relies (*see, e.g.*, PO Resp. 39–42; PO Sur-reply 18; Ex. 2005 ¶ 144), but conclude that they do not adequately account for the teachings of the prior art or of the level of ordinary skill in the art. We find more persuasive Petitioner’s contentions, Pet. 74–78, and credit Mr. Nicely’s supporting testimony, Ex. 1003 ¶¶ 290–293, as Petitioner and Mr. Nicely’s positions are more consistent with what a person of ordinary skill in the art, who is also a person of ordinary creativity (*see KSR*, 550 U.S. at 421) would have understood from the teachings of the prior art and how to amalgamate those teachings. Specifically, we determine that Petitioner has established that a skilled artisan would have had adequate reason to combine the teachings of Bryson and Frenkel, and a reasonable expectation of doing so, to arrive at the system set forth in claims 12 and 13.

H. Obviousness based on Bryson and Schlottmann – Claims 17–19

Claim 17 depends from claim 9, and further recites “a tournament administration module to manage tournament play.” Ex. 1001, 17:55–57. Claim 18 depends from claim 17, and further recites “wherein the tournament administration module oversees a delay tournament where players are trying to get a highest score.” *Id.* at 17:58–60. Claim 19 depends from claim 18, and further requires “wherein the delay tournament automatically ends after a period of time has expired.” *Id.* at 17:61–63.

Petitioner asserts claims 17–19 would have been obvious based on the teachings of Bryson and Schlottmann. Pet. 74–78. For these claims, Petitioner asserts that Schlottmann teaches a central controller that controls a tournament where players compete in a tournament, including self-scheduled and delayed tournaments. *Id.* Petitioner argues that Schlottmann teaches the function of keeping track of multiple games in a tournament because Schlottmann’s “self-scheduled tournaments” allow multiple players to compete in the tournament at overlapping or different times and each of the players play the tournament on a server-based gaming machine during a designated time period, and each of the players may play at different times, as long as the tournament play is within the designated time period. *Id.* at 74–75 (emphasis omitted). Petitioner further identifies Schlottmann’s central server or controller as the corresponding structure that performs the function of keeping track of tournaments. *Id.* at 77 (“Schlottmann teaches a ‘central server or controller [that] includes a processor and a memory or storage device’ and that implements the tournament administration functionality discussed above.” (alteration in original)).

Petitioner further contends that

a POSITA would have found the structure of a delay tournament to be particularly suitable for online gaming systems, where players are not physically present together and where players are competing from a mobile device and may encounter distractions that interrupt the game flow of a traditional synchronous, real-time competition Schlottmann expressly discloses conducting this type of delayed tournament in a networked gaming system for peer-to-peer gaming.

Pet. 75–76 (citing Ex. 1003 ¶ 305).

Patent Owner argues that Petitioner proposes facially defective means-plus-function constructions that fail to identify adequate corresponding structure and “improperly push[] the Board to conduct a defective invalidity analysis.” PO Resp. 29; *see id.* at 24–28.

As discussed in detail above, *see, e.g.*, Section II.C.4., we find that Petitioner has satisfied the claim construction requirements of Rules 100(b) and 104(b). Moreover, we do not agree that Petitioner has proposed facially defective constructions. Petitioner identified the functions of the “tournament administration module” to be “manage tournament play” and/or “oversee a delay tournament where the players are trying to get a highest score.” Pet. 20. Petitioner and Mr. Nicely further identified the corresponding structure to be an algorithm that performs these functions that exists as software in the administration server. *Id.* at 20–21; Ex. 1003 ¶¶ 121–122.

Additionally, Petitioner has sufficiently identified Schlottmann’s central server as the corresponding structure that performs the functions above. We agree with Petitioner’s reading of Schlottmann. For example, Schlottmann teaches that its gaming system “includes a central server or controller operable to communicate a plurality of different commands to a plurality of gaming machines to provide non-tournament game play and to provide tournament game play on the same gaming machines.” Ex. 1006, code (57). Schlottmann discloses that although a tournament can be a self-scheduled tournament that the player may play instantly, “the player may have to wait until a certain time, or until a certain number of players have played the tournament game to know their final standing.” *Id.* ¶ 37.

Patent Owner argues that Petitioner and Mr. Nicely have not “meaningfully address[ed] how Bryson’s central server would be included in Bryson’s server-based gaming system in order to support delayed tournament games would be integrated into Bryson’s system.” PO Resp. 43 (emphasis added). Patent Owner also contends “Petitioner failed to address how Schlottmann’s central server would be included in Bryson’s server-based gaming system to support delayed tournament games with a reasonable expectation for success.” PO Sur-reply 18–19; PO Resp. 42–45.

Yet, we find that Petitioner has sufficiently explained why and how a POSITA would have combined the teachings of Bryson and Schlottmann. Petitioner sets forth the following in the Petition that

[f]rom their earliest days of operation, casinos have been conducting gaming tournaments where players are required to play games within a certain period of time and the scores or outcomes of those games are compared to determine a winner. EX[1003] ¶309 (citing EX[1006] ¶¶5-9 (“Background” section)). The ’657 Patent refers to this well-known structure for tournaments as a “delayed tournament.” EX[1001] 14:44-45 (“Delayed tournaments are tournaments in which all participants need to play the game within a validity period.”) At least as of the early 2000’s, such tournaments had “become a big item in many gambling games” including for both skill-based and non-skill games. EX[1003] ¶309 (citing EX[1054] 179 (regarding “poker,” “blackjack” and “slot tournaments” where “[a]t the end of the allotted time period, the people who have won the most (or lost the least) take home the prizes.”)).

Pet. 74. Petitioner references “delayed tournament” play described in the ’657 patent, which we understand is encompassed in aspects of claims 17–19. Petitioner further explains the following:

Schlottmann provides specific details of improving the delayed tournament experience in a server-based gaming system for

remote, networked gaming clients. EX[1003] ¶304. Specifically, Schlottmann teaches a “central server” that communicates with gaming clients including physical gaming machines and mobile devices and “provide[s] tournament game play...” EX[1003] ¶308; EX[1006] Abstract, ¶121. Schlottmann teaches providing “self-scheduled tournaments” where “multiple players compete in the tournament at overlapping or different times,” “[e]ach of the players play the tournament on a server based gaming machine ... during a designated time period (such as a day, a week, or a month) ... [and] [e]ach of the players ... [play] at different times, as long as the tournament play is within the designated time period.” EX[1003] ¶307 (citing EX[1006] ¶34).

Id. at 75.

As discussed, Petitioner explains that Schlottmann’s “central server” communicates with gaming machines and devices to manage tournament play, including delayed tournament play. Petitioner further contends the following:

A POSITA would have been motivated to apply Schlottman’s disclosure of delayed tournaments with Bryson’s teaching to conduct tournament game play of individual games that are well-suited for the delayed tournament structure, such as solitaire, blackjack, and other similar games that involve a “single player trying to get the best score possible.” EX[1003] ¶305; EX[1001] 18:26-29. A POSITA would have found the structure of a delay tournament to be particularly suitable for online gaming systems, where players are not physically present together and where players are competing from a mobile device and may encounter distractions that interrupt the game flow of a traditional synchronous, real-time competition. EX[1003] ¶305. Schlottmann expressly discloses conducting this type of delayed tournament in a networked gaming system for peer-to-peer gaming. *Id.*

It would have been obvious to a POSITA to combine Schlottmann’s teaching of a delayed tournament with Bryson’s disclosed use of “tournament” play, which would have yielded

the predictable result of enabling Bryson's gaming system to oversee a delayed tournament with the players and their client devices in the gaming network. *Id.* This would have merely entailed software implementation well within the level of skill in the art. EX[1003] ¶305.

A POSITA would have been motivated to include the central server of Schlottmann in the server-based gaming system of Bryson to oversee administration of tournament game play for remote clients as contemplated by Bryson and taught by Schlottmann and to provide the benefits of Schlottmann's self-scheduled tournaments to Bryson's tournament games. *Id.*

Pet. 75–77.

We understand that Petitioner argues that a POSITA would have had adequate reason to implement aspects of Schlottmann's teachings with Bryson's disclosure, including those connected with its "central server" as a part of a "server-based gaming system," in order to conduct or administer certain types of tournament play.

We agree with Petitioner that each of Bryson and Schlottmann contemplates tournament play in server-based and online gaming systems and that Schlottmann provides details as to a particular architecture of a system involving a "central server" so as to provide a known tournament play approach. Pet. 74–75 (citing Ex. 1003 ¶¶ 302, 304, 307–308; Ex. 1004, 1:66–2:49, 11:28–36, 13:55–56, Fig. 4; Ex. 1006, code (57), ¶¶ 34, 121). Patent Owner does not meaningfully explain why a person of ordinary skill in the art would somehow be unable to implement Schlottmann's teachings in combination with Bryson's gaming system to administer a particular type tournament game play. We are persuaded by Petitioner (*id.* at 74–76; Pet. Reply 25), and credit Mr. Nicely's testimony (*see* Ex. 1003 ¶¶ 302–310),

that a skilled artisan would have understood how to do so with “predictable results” (*id.* ¶ 305), and would have “expect[ed] a successful combination” (Pet. Reply 25).

Accordingly, we are persuaded that Petitioner has shown by a preponderance of the evidence that claims 17–19 are unpatentable based on Bryson and Schlottmann.

I. Petitioner’s Motion to Exclude Evidence

Petitioner moves to exclude Exhibit 2005, the declaration testimony of Dr. Lane submitted with the Patent Owner Response, from evidence. *See* Paper 28, 1. Petitioner makes three different arguments, which we address in turn.

Petitioner moves to exclude Exhibit 2005, the declaration testimony of Dr. Lane submitted with the Patent Owner Response, from evidence. *See* Paper 28, 1. Petitioner asserts: (1) Dr. Lane is not qualified as a person of ordinary skill in the art, on the alleged basis that he has inadequate gambling knowledge and inadequate experience in developing gambling technology (*see id.* at 1, 3–7); (2) Dr. Lane’s testimony is unsupported by evidence and is unreliable (*see id.* at 1, 7–10); and (3) Dr. Lane’s testimony assesses obviousness at the wrong time frame (*see id.* at 1, 10–11). Petitioner also, in its Reply, asks that we give Dr. Lane’s testimony “no weight” due to his alleged lack of expert qualifications. *See* Pet. Reply 25–27.

Patent Owner disputes each of Petitioner’s assertions in the Motion (*see* Paper 29), and opposes Petitioner’s request to give Dr. Lane’s testimony no weight even if it is admitted (*see* PO Sur-reply 24–25). Petitioner replies in support of the Motion (*see* Paper 30).

We have considered Petitioner’s arguments and determine that these go to the weight we should give Dr. Lane’s testimony, not its admissibility. *See Microfinancial, Inc. v. Premier Holidays Int’l.*, 385 F.3d 72, 81 (1st Cir. 2004) (“When the factual underpinning of an expert’s opinion is weak, it is a matter affecting the weight and credibility of the testimony—a question to be resolved by the [factfinder].”). As Petitioner notes, we have adopted Petitioner’s proffered level of ordinary skill in the art, which is a “bachelor’s degree in computer engineering, electrical engineering, computer science, applied mathematics, or a similar field, and at least two years of experience in the development of gambling game hardware or software functionality.” Pet. 19 (citing Ex. 1003 ¶ 30). Further, we agreed that “[a] person with less education but more relevant practical experience may also meet this standard.” *Id.*

We note that Dr. Lane has several years of education and experience in game design and development. Ex. 2002. This includes his over two decades as a professor at the University of Pennsylvania and his current role as Professor of Practice and the Director of the Computer Graphics and Game Technology (CGGT) Masters Program. *Id.* at 1. While Dr. Lane does not have experience in gambling games per se, we note that there need not be a perfect match between the expert’s qualifications and the patent at issue. *See SEB S.A. v. Montgomery Ward & Co., Inc.*, 594 F.3d 1360, 1373 (Fed. Cir. 2010). It is not necessary for Dr. Lane to demonstrate that he is an expert in poker or any specific wager-based games. Indeed, to testify as an expert under Fed. Rule Evid. 702, a person need not be one of ordinary skill, but may be “qualified in the pertinent art.” *See B/E Aerospace, Inc. v. MAG Aerospace Indus. LLC*, Paper 104 at 13–14 (Final Written Decision)

(declining to exclude the testimony of expert witness that lacked hands-on experience with the claimed subject matter).

We agree with Patent Owner that Dr. Lane’s education, his experience as a “professor who teaches gaming at the University of Pennsylvania,” and his “25-years of experience researching, developing and commercializing technology for use in Interactive Entertainment” provide him sufficient experience and knowledge of the claimed subject matter for his opinion to remain of record. Paper 29, 1–3 (citing Ex. 2001 ¶ 17; Ex. 2005 ¶¶ 5–7, 12; Ex. 1068, 21:22–26:8). As Dr. Lane explains, he is familiar “with the knowledge, skill and experience of those skilled in the art of developing game software and systems” and has been involved in the development of many games including:

[the] development of an Olympics Decathlon PC game developed for AT&T to be played in conjunction with the 1996 Olympics that was held in Atlanta, GA. This project involved development not only of the game software, but also a network interface that enabled players to compete in various events concurrently with those being held at the Olympics and upload their scores to a server to determine the winner in each event.

Ex. 2005 ¶ 12.

Moreover, we take into account the qualifications of an expert witness—and any shortcomings revealed through cross-examination—when evaluating the weight to be given that witness’s testimony. To the extent that Dr. Lane’s testimony lacks reliability or applies the wrong invalidity analysis, we have afforded that testimony little to no weight. Conclusory and/or unsupported testimony is entitled to little weight. *See* 37 C.F.R. § 42.65(a) (“Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.”);

Upjohn Co. v. Mova Pharm. Corp., 225 F.3d 1306, 1311 (Fed. Cir. 2000) (“Lack of factual support for expert opinion to factual determinations, however, may render the testimony of little probative value in a validity determination.”) (quoting *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 294 (Fed. Cir. 1985)). However, the wholesale exclusion of a witness’s declarations is rarely called for in a proceeding before the Board. For the instant proceeding, we have considered Dr. Lane’s qualifications and the underlying bases for his statements in determining the weight to be given his testimony. Instead of disregarding Dr. Lane’s testimony in its entirety, we evaluate each of his assertions on their own, in light of the explanation offered, his answers on the specific topics under cross-examination, and the other evidence of record.

Accordingly, we deny Petitioner’s motion to exclude.

III. CONCLUSION

In summary, we determine that a preponderance of the evidence establishes that claims 1–10 and 12–29 of the ’657 patent are unpatentable. Petitioner has not demonstrated by a preponderance of the evidence that claim 11 is unpatentable. These determinations are shown in the following table:⁹

⁹ 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*. See 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application

Claim(s)	35 U.S.C. §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
9–11, 20	102(e)	Bryson	9, 10	11
9–11, 20	103(a)	Bryson	20	11
1–8, 14–16, 21–29	103(a)	Bryson, Amaitis	1–8, 14–16, 21–29	
12, 13	103(a)	Bryson, Frenkel	12, 13	
17–19	103(a)	Bryson, Schlottmann	17–19	
Overall Outcome			1–10, 12–29	11

IV. ORDER

In consideration of the foregoing, it is

ORDERED that claims 1–10 and 12–29 of the '657 patent have been shown to be unpatentable;

FURTHER ORDERED that claim 11 of the '657 patent has not been shown to be unpatentable;

FURTHER ORDERED that Petitioner's Motion to Exclude (Paper 28) is *denied*; and

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

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).

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