

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FORTE LABS, INC.,
Petitioner,

v.

POCKETFUL OF QUARTERS, INC.
Patent Owner.

PGR2022-00058
Patent 11,189,131 B1

Before BENJAMIN D. M. WOOD, CYNTHIA L. MURPHY, and
RICHARD H. MARSCHALL, *Administrative Patent Judges*.

WOOD, *Administrative Patent Judge*.

DECISION
Granting Institution of Post-Grant Review
35 U.S.C. § 324

I. INTRODUCTION

A. Background

Forte Labs, Inc. (“Petitioner”) filed a Petition (Paper 2, “Pet.”) requesting post-grant review of claims 1–17 of U.S. Patent No. 11,189,131 B1 (Ex. 1001, “the ’131 patent”).¹ Pocketful of Quarters, Inc. (“Patent Owner”) filed a Preliminary Response (Paper 7, “Prelim. Resp.”). With our authorization (Paper 10), Petitioner filed a Preliminary Reply to Patent Owner’s Preliminary Response (Paper 11, “Prelim. Reply”) addressing Patent Owner’s construction of the term “server gateway” under 35 U.S.C. § 112(f), and Patent Owner filed a Preliminary Sur-reply thereto (Paper 17, “Prelim. Sur-reply”).

We have authority to determine whether to institute a post-grant review. 35 U.S.C. § 324 (2018); 37 C.F.R. § 42.4(a) (“The Board institutes the trial on behalf of the Director.”). Section 324(a) provides that a post-grant review may not be instituted “unless . . . the information presented in the petition . . . , if such information is not rebutted, would demonstrate that it is more likely than not that at least 1 of the claims challenged in the petition is unpatentable.” Upon consideration of the evidence and arguments in the Petition (including its supporting testimonial evidence), the evidence and arguments in the Preliminary Response (including its supporting testimonial evidence), the Preliminary Reply, and the Preliminary Sur-reply, we determine that the information presented shows that it is more likely than not that Petitioner would prevail with respect to at least one of the challenged claims. Accordingly, we institute post-grant review on all

¹ Claims 18–20 have been disclaimed. Ex. 2002.

challenged claims on all asserted grounds. *See* 37 C.F.R. § 42.208(a) (“When instituting post-grant review, the Board will authorize the review to proceed on all of the challenged claims and on all grounds of unpatentability asserted for each claim.”).

B. Related Proceedings

The parties state that the ’131 patent is at issue in *Forte Labs, Inc. v. Pocketful of Quarters, Inc.*, Civil Action No. 4:22-cv-04982-YGR (N.D. Cal.). Paper 4, 2; Paper 6, 2.

C. The ’131 Patent

The ’131 patent issued November 30, 2021 from an application filed March 9, 2021, and is titled “System and Method for Blockchain Tokens for Gaming.” Ex. 1001, codes (45), (22), (54). The ’131 patent states that it “provide[s] a system and method for in-game tokens or virtual currencies which may be used for a variety of transactions, including within a plurality of games, yet for which transactions may be sufficiently controlled to avoid adverse real world effects,” such as money laundering. *Id.* at 1:33–46.

According to the ’131 patent, “gaming” refers to “any type of digital or online game or game play, including . . . video games and games of chance, as well as gamified interfaces.” Ex. 1001, 1:50–52. A “token” is “any unit which has value in the gaming environment”; a game user may be required to “spend” tokens to access a game, and may win tokens from successful game play. *Id.* at 1:52–54; 8:39–41.

The ’131 patent describes a “blockchain” as follows:

A blockchain is a distributed database that maintains a list of data records, the security of which is enhanced by the distributed nature of the blockchain. A blockchain typically

includes several nodes, which may be one or more systems, machines, computers, databases, data stores or the like operably connected with one another. In some cases, each of the nodes or multiple nodes are maintained by different entities. A blockchain typically works without a central repository or single administrator. One well-known application of a blockchain is the public ledger of transactions for cryptocurrencies such as used in bitcoin. The recorded data records on the blockchain are enforced cryptographically and stored on the nodes of the blockchain.

Ex. 1001, 3:66–4:11. Some blockchains “are capable of running code, to facilitate the use of smart contracts.” *Id.* at 4:47–49. “Smart contracts” are “computer processes that facilitate, verify and/or enforce negotiation and/or performance of a contract between the parties.” *Id.* at 4:49–51.

Figure 1A of the ’131 patent depicts a system “for recording game tokens on the blockchain for use with various types of games across multiple game servers or multiple game types” (Ex. 1001, 5:38–40), and is reproduced below:

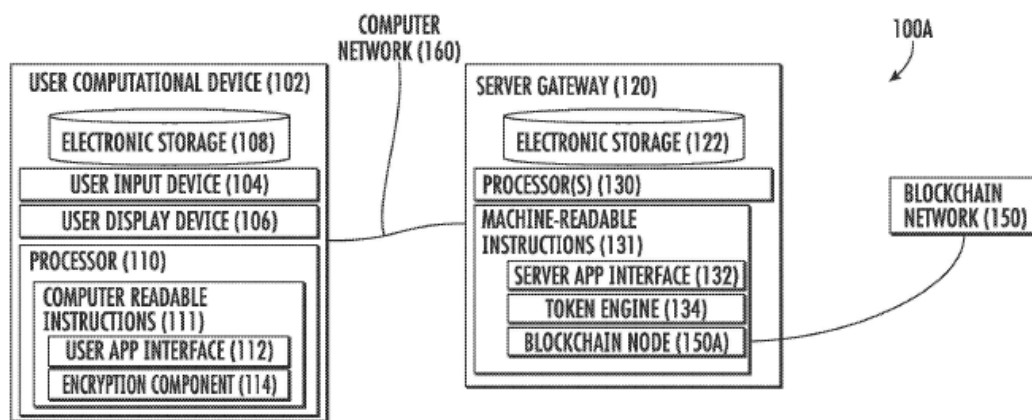


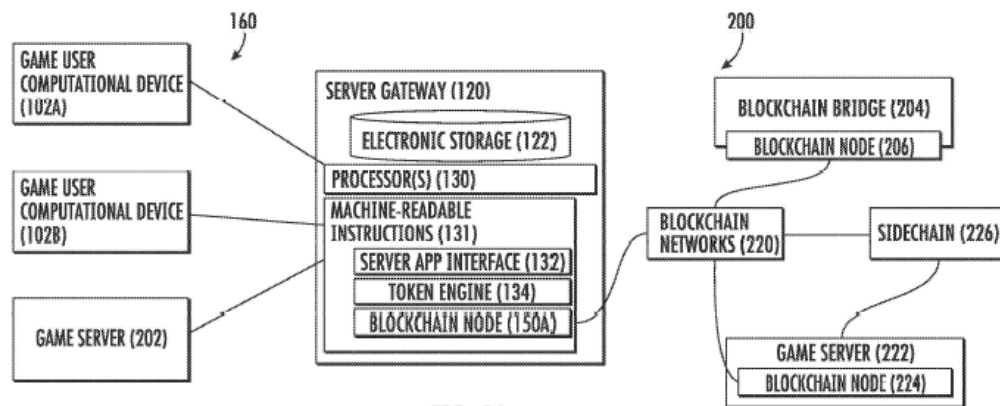
FIG. 1A

Figure 1A depicts a “user computational device” 102 communicating with “server gateway” 120 via computer network 160. *Id.* at 5:41–43. Game user computational device 102 comprises processor 110, which performs

functions that “relate to those performed by any suitable computational processor,” memory 111 containing computer-readable instructions, user input device 104, and user display device 106. *Id.* at 5:50–62.

Server gateway 120 comprises processor 130 and a memory 131 with machine readable instructions for, e.g., “receiving token exchange instructions from user computational device 102 via a server app interface 132,” and for “executing such token exchanges, for example for use in gameplay.” Ex. 1001, 6:65–7:9. The machine-readable instructions also comprise token engine 134 “for writing token information to or reading token information from blockchain node 150A”—which is “part of blockchain network 150”—to perform token exchanges. *Id.* at 6:53–56.

Figure 2A of the ’131 patent depicts a similar embodiment, and is depicted below:



The embodiment shown in figure 2A is similar to the Figure 1A embodiment and additionally includes, *inter alia*, a plurality of game user computational devices 102A and 102B, game server 202, and game server 222. Ex. 1001, 8:29–32. In this embodiment “token engine 134 is now able to communicate directly with a game server 202, for example to assist the game player in having tokens being read from or written to the game.” *Id.* at 8:34–37.

Token engine 134 “may also write to a sidechain 226, for example through a blockchain network 220, which may for example, operate a smart contract.” *Id.* at 9:6–9. Game server 222 is shown with blockchain node 224, which allows the game server “to write to sidechain 226 directly.” *Id.* at 9:9–11. Alternatively, game server 222 “may be able to interact directly with token engine 134.” *Id.* at 9:9–12.

Figure 2B of the ’131 patent depicts a further embodiment, and is reproduced below:

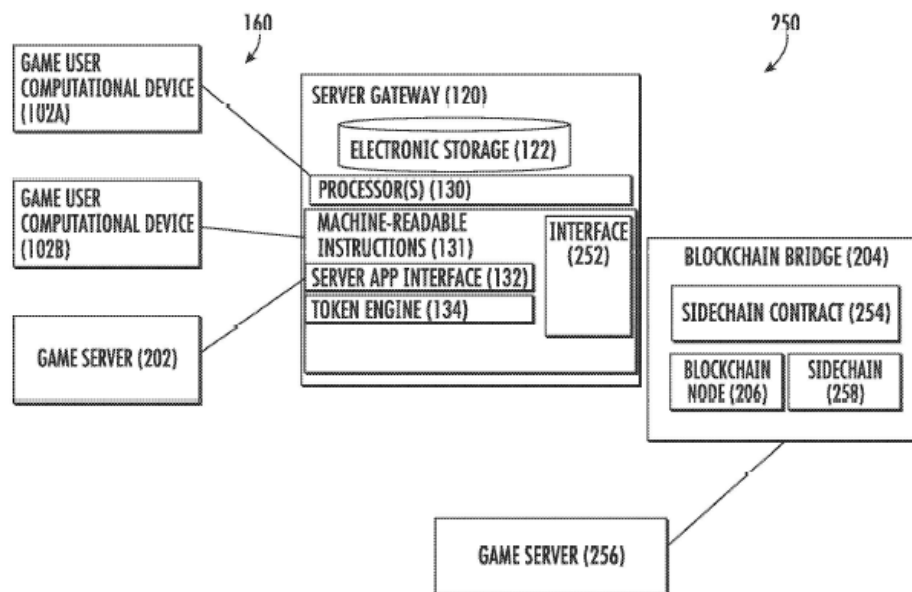


FIG. 2B

The embodiment depicted in Figure 2B, like that in Figure 2A, comprises game user computational devices 102A and 102B and game server 202. Server gateway 120 differs from that depicted in Figures 1A-2A in that it “no longer has an associated blockchain node, and so can no longer read from or write to a blockchain node directly.” Ex. 1001, 9:23–25. Instead, “through interface 252, server gateway 120 interacts indirectly with the blockchain bridge 204.” *Id.* at 9:25–27.

D. The Challenged Claims

Petitioner challenges claims 1–17 of the '131 patent. Pet. 1. Claims 1 and 16 are independent. Ex. 1001, Claims 1, 16. Claim 1 is reproduced below (reformatted to improve readability and to include Petitioner's limitation designations):

1. [1p] A system for providing tokens for transactions in a plurality of games through a blockchain, the system comprising:

[1[a]] a game user computational device for being operated by a game user,

[1[b]] said game user computational device comprising a game user interface for interacting with the plurality of games;

[1[c]] a server gateway for operating a block-chain interface;

[1[d]] and a computational network for connecting said game user computational device and said server gateway;

[1[b] cont.] wherein said game user interface is operable across a plurality of different types of gaming platforms or hardware;

[1[e]] wherein said game user computational device comprises a memory and a processor, wherein said memory is configured for storing a defined native instruction set of codes and said processor is configured to perform a defined set of basic operations in response to receiving a corresponding basic instruction selected from the defined native instruction set of codes stored in said memory;

[1[f]] wherein said memory stores a first set of machine codes selected from the native instruction set for receiving information from the user through said game user interface and

[1[g]] a second set of machine codes selected from the native instruction set for transmitting such information to

said server gateway for token exchanges for use in gameplay;

[1[a], cont.] wherein said game user computational device directs transactions of the tokens during gameplay with each of said plurality of games, and

[1[c], cont.] wherein said transactions are performed through said blockchain interface of said server gateway;

[1[h]] wherein said system further comprises a plurality of game user computational devices, each game user computational device being associated with a game account for said plurality of games and for transactions of said tokens,

[1[i]] wherein said tokens are not exchangeable between said plurality of game accounts.

Ex. 1001, 21:24–55.

E. Asserted Grounds of Unpatentability

Petitioner contends that the challenged claims are unpatentable based on the following specific grounds (Pet. 4) (modified to account for the disclaimer of claims 18–20):

No.	Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1	1–7	101	Ineligibility
2	1–6, 8–17	102	Cotta ²
3	7	103	Cotta, Campbell ³

² US 2020/0202668 A1 (Jun. 25, 2020) (Ex. 1005).

³ Campbell, M., Practical Plasma (Volume I): Gaming, Loom Network (Apr. 28, 2018) (Ex. 1009).

No.	Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
4	1–6, 8, 14, 15	103	Knight, ⁴ PoQ Whitepaper ⁵
5	7	103	Knight, PoQ Whitepaper, Cotta
6	9–13	103	Knight, PoQ Whitepaper, Cotta
7	16, 17	102	Knight

Petitioner also relies on the Declaration of Thomas Plunkett (Ex. 1003) to support its proposed grounds. Patent Owner relies on the Declaration of Dr. Andreas Freund (Ex. 2001) to support its Preliminary Response.

II. ANALYSIS

A. Eligibility for Post-Grant Review

As a threshold matter, we must determine whether the '131 patent is eligible for post-grant review. The post-grant review provisions in section 6(d) of the Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (September 16, 2011) (“AIA”) apply only to patents that “contain[] or contained at any time . . . a claim to a claimed invention that has an effective filing date . . . that is on or after [March 16, 2013].” AIA §§ 3(n)(1), 6(d), 6(f)(2)(A), 125 Stat. 284, 293, 305–312 (2011).

Each petitioner for post-grant review must certify that the challenged patent is available for post-grant review. 37 C.F.R. § 42.204(a). In addition,

⁴ US 2019/0299105 A1 (Oct. 3, 2019) (Ex. 1006).

⁵ Pocketful of Quarters Whitepaper (Ex. 1008).

“[a] petition for a post-grant review may only be filed not later than the date that is 9 months after the date of the grant of the patent or of the issuance of a reissue patent (as the case may be).” 35 U.S.C. § 321(c). Petitioner has the burden to demonstrate eligibility for post-grant review. *See Mylan Pharms. Inc. v. Yeda Res. & Dev. Co.*, PGR2016-00010, Paper 9 at 10 (PTAB Aug. 15, 2016).

Petitioner “certifies under 37 C.F.R. § 42.204(a) that the ’131 patent is available for post-grant review challenging the patent claims on the grounds identified in this petition,” and that “[a]s of the filing date of this petition, Petitioner has not filed a declaratory judgement [sic] action seeking invalidity of the ’131 patent.” Pet. 2–3; *see* 37 C.F.R. § 42.201(a) (a person may petition for post-grant review of a patent unless “[b]efore the date on which the petition for review is filed, the petitioner or real party-in-interest filed a civil action challenging the validity of a claim of the patent.”). Petitioner also contends that “[t]he ’131 Patent issued on November 30, 2021, and this Petition is timely filed on or before the date that is nine months after the date of the grant of the patent, or August 30, 2022.” *Id.* at 3. Patent Owner does not address post-grant-review eligibility of the ’131 patent in its Preliminary Response.

On this record, we determine that the ’131 patent is eligible for post-grant review. The patent’s earliest effective filing date is July 24, 2020 (the filing date of a provisional application to which the ’131 patent claims priority), which is after March 16, 2013. Further, the Petition’s filing date, August 30, 2022 (Paper 3, 1), is not later than the date that is nine months after the ’131 patent’s grant date of November 30, 2021. Ex. 1001, code (45). Finally, we accept Petitioner’s certification that it had not filed a civil

action challenging the validity of a claim of the '131 patent before the Petition was filed.

A. Level of Ordinary Skill in the Art

Petitioner asserts that one of ordinary skill in the art at the time of the invention:

would have either an undergraduate, graduate, or doctoral degree in computer science or a similar field (*e.g.*, electrical engineering, etc.) with expertise in blockchain gaming systems, or three to five years' industry experience in the general fields of blockchain technologies, blockchain gaming systems, client server gaming systems, blockchain utility tokens, blockchain security tokens, and Ethereum utility token design. With more education, such as additional graduate degrees or study, less professional experience is needed to attain the ordinary level of skill. Similarly, with more experiential knowledge of computer games, such as experience developed while playing computer games, less professional experience is needed to attain the ordinary level of skill.

Pet. 7 (citing Ex. 1003 ¶ 15).

Patent Owner does not dispute Petitioner's proposed level of skill in the art at this stage of the proceeding. *See* Prelim. Resp. 18 (“[f]or purposes of this Preliminary Response only, Patent Owner uses Petitioner's proposed level of skill in the art.”).

We discern no reason, at this stage of the proceeding, to question Petitioner's proposed level of ordinary skill, which is supported by the prior art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

B. Claim Construction

In post-grant reviews, the Board construes claim language “using the same claim construction standard that would be used to construe the claim in

a civil action under 35 U.S.C. [§] 282(b), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.” 37 C.F.R. § 42.200(b); *see Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc). Any special definitions for claim terms must be set forth in the Specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

Petitioner does not expressly construe any claim term, but contends that “all terms in the challenged claims not specifically discussed [in the Petition] should be given their plain and ordinary meaning.” Pet. 8. Patent Owner proposes an express definition for the “server gateway” term appearing in claims 1 and 16. Prelim. Resp. 18.

1. “server gateway for . . .”

Independent claims 1 and 16 recite “a server gateway for operating a blockchain interface; . . . wherein said transactions are performed through said blockchain interface of said server gateway.” Ex. 1001, claims 1, 16. Patent Owner asserts that “server gateway for” should be interpreted as a means-plus-function element under 35 U.S.C. § 112(f) because “it is recited in terms of the function it performs without reciting in the claim sufficient structure for performing that function.” Prelim. Resp. 18 (citing Ex. 2001 ¶ 54). Patent Owner contends that although “‘server gateway’ may generally connote structure,” the term “is recited in a manner that is so formless as to be nothing more than ‘a generic black box for performing the recited computer-implemented functions.’” *Id.* at 18–19 (quoting *Egenera, Inc. v. Cisco Sys., Inc.*, 972 F.3d 1367, 1374 (Fed. Cir. 2020)). Patent

Owner asserts that “the ‘server gateway’ in FIG. 2B is nothing more than a black-box that contains the various structural components that perform the functions the claims require the ‘server gateway’ to perform.” *Id.* at 19.

Thus, according to Patent Owner, “‘server gateway for’ is simply a generic description of software or hardware that performs the recited functions in the claims and should therefore be construed as a means-plus-function term.”

Id.

Petitioner responds that Patent Owner has not overcome the presumption that “server gateway” is not a means-plus-function claim limitation. Prelim. Reply 1. According to Petitioner, “‘server gateway for operating a blockchain interface’ connotes a definite conventional structure to those of ordinary skill in the art, namely, a server connecting a game user computational device and the blockchain.” *Id.* at 1–2 (citing Paper 12, Declaration of Thomas Plunkett in Support of Petitioner’s Reply to Patent Owner’s Preliminary Response (“Supp. Plunkett Decl.”) ¶¶ 1–3). Patent Owner replies that “[s]uch structure is insufficient to perform the recited functions,” because “[a] server that simply *connects* two devices does not provide sufficient description for how to actively ‘*operate* a blockchain interface’ and *perform transactions ‘through* said blockchain interface.’” Prelim. Sur-reply 1–2 (citing Paper 18, Declaration of Andreas Freund, Ph.D. in Support of Patent Owner’s Sur-Reply (“Supp. Freund Decl.”) ¶ 1).⁶

⁶ Petitioner filed the Supplemental Plunkett Declaration as Paper 12, and Patent Owner filed the Supplemental Freund Declaration as Paper 18. Our rules state that “[a]ll evidence must be filed in the form of an exhibit.” 37 C.F.R. § 42.63(a). Because the Supplemental Declarations have not been filed as exhibits, they are not considered record evidence. However, even if we had considered the declarations as part of this Decision, we would have

Claim terms using the word “means” are presumed to invoke § 112(f), and terms without the word “means” are presumed not to invoke this subsection. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348 (Fed. Cir. 2015). Because “server gateway” does not include the word “means,” it is presumed not to be a means-plus-function claim term under § 112(f). This presumption can be rebutted, however, by demonstrating that the term fails to “recite sufficiently definite structure,” or recites “function without reciting sufficient structure for performing that function.” *Id.* at 1349 (internal quotation marks omitted). It is Patent Owner’s burden to produce sufficient evidence to overcome this presumption. *See Dyfan, LLC v. Target Corp.*, 28 F.4th 1360, 1367 (Fed. Cir. 2022) (“From a procedural standpoint, this presumption imposes on the party challenging the presumption the burden of going forward with evidence . . . that a person of ordinary skill in the art believes the term does not recite sufficiently definite structure.”) (internal citation, quotation marks, and alterations omitted).

There does not appear to be a dispute, at this stage of the proceeding, that “server gateway” denotes at least some structure to persons of ordinary skill: a server connecting a game user computational device and a blockchain. Thus, we are not persuaded, on the current record, that “server gateway” is a “generic term[] or black box recitation[] of structure or abstractions.” *MTD Prods. v. Iancu*, 933 F.3d 1336, 1341 (Fed. Cir. 2019). Patent Owner nonetheless argues that although the term may recite some structure, the recited structure is insufficient to perform “the recited functions,” which Patent Owner asserts are: (1) “operating a blockchain

still instituted a post-grant review. The parties should ensure that they file all declarations as exhibits going forward.

interface”; (2) “wherein said game user computational devices directs transactions”; and (3) “wherein said transactions are performed through said blockchain interface of said server gateway.” Prelim. Resp. 19. Patent Owner does not, however, make clear what additional structure would be required to perform these functions. Patent Owner refers us to Figure 2B of the ’131 patent, and particularly its annotated version thereof. *Id.* at 20–21. But the elements depicted in that figure are components that one would expect in any server: “processor(s),” memory with “machine-readable instructions,” and “interface[s].” At this stage of the proceeding, this is not persuasive that the recited structure is insufficient to perform the recited functions, and thus that “server gateway” should be interpreted as a means-plus-function claim limitation under § 112(f). *See Dyfan*, 28 F.4th at 1366 (“where it is clear that a claim term itself connotes some structure to a person of ordinary skill in the art, the presumption that [§ 112(f)] does not apply is determinative in the absence of more compelling evidence of the understanding of one of ordinary skill in the art.”)⁷

2. *Other Limitations*

At this stage of the proceeding, we do not perceive the need to expressly construe any claim term, as the threshold question of institution can be decided without doing so. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (approving

⁷ Patent Owner argues, in the alternative, that the “server gateway” limitation should be construed to mean “a server for indirectly interacting, via a blockchain interface, with a component of a blockchain network that reads from/writes to a blockchain.” Prelim. Resp. 24. We address this proposed construction below.

Board decision not to construe claim language where the construction is not material to the dispute).

C. Ground 1: Claims 1–17—Eligibility Under 35 U.S.C. § 101

1. Principles of Law

An invention is patent eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. The Supreme Court interprets § 101 to include implicit exceptions to this list, however: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014). To determine whether a claim falls within a judicially recognized exception to patent eligibility under § 101, we apply the two-step framework set forth in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012), and reaffirmed in *Alice*. *Alice*, 573 U.S. at 217–18 (citing *Mayo*, 566 U.S. at 75–77). For the first *Alice* step (the USPTO’s Patent Subject Matter Eligibility Guidance, Manual of Patent Examining Procedure (“MPEP”) § 2106, designates the first step of *Alice* as Step 2A⁸), we determine whether the claims at issue are directed to a patent-ineligible concept such as an abstract idea, law of nature, or natural phenomenon. *Alice*, 573 U.S. at 217 (citing *Mayo*, 566 U.S. at 78–79). If so, we advance to the second *Alice* step (Step 2B of the USPTO’s Patent Subject Matter Eligibility Guidance) where “we consider the elements of each claim both individually and ‘as an

⁸ Under the USPTO’s Step 1, we determine whether the claimed invention falls within one of the four statutory categories of invention under 35 U.S.C. § 101: processes, machines, manufactures, and compositions of matter. MPEP § 2106 (III) (9th Ed., Rev. 10.2019 (June 2020)). Here, Petitioner does not contend that independent claim 1 fails to recite one of the statutory categories.

ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application” of the otherwise patent-ineligible concept. *Id.* (quoting *Mayo*, 566 U.S. at 78–79).

We also follow the USPTO’s additional guidance on applying Step 2A. *See* 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Patent Eligibility Guidance”).⁹ The Patent Eligibility Guidance establishes a two-prong inquiry for determining whether a claim is directed to a judicial exception. 84 Fed. Reg. at 54. In prong one, we determine whether the claim *recites* a judicial exception, such as an abstract idea.¹⁰ *Id.* The groupings of abstract ideas listed in the Patent Eligibility Guidance include “[m]athematical concepts,” “[c]ertain methods of organizing human activity,” and “[m]ental processes.” *Id.* at 52. If the claim recites a judicial exception, we look to whether the claim recites additional elements that *integrate* the judicial exception *into a practical application*. *Id.* at 50. Thus, a claim is *directed to* a judicial exception only if the claim recites a judicial exception *and* does not integrate that exception into a practical application. *Id.* “Integration into a practical application” requires an additional element or a combination of additional elements in the claim that apply, rely on, or use the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the exception. *Id.* at 54–55.

⁹ Available at <https://www.govinfo.gov/content/pkg/FR-2019-01-07/pdf/2018-28282.pdf>.

¹⁰ A judicial exception is “recited” when it is “set forth or described” in the claim. MPEP § 2106.04(II)(A)(1).

If we determine that the claim is directed to a judicial exception under Step 2A, we proceed to Step 2B and determine whether the claim adds a specific limitation beyond the judicial exception that is not a well-understood, routine, and conventional activity in the field, or, alternatively, whether the claim simply appends well-understood, routine, and conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception. *Id.* at 56.

2. *Step 2A, Prongs 1 and 2*

Petitioner asserts that “all claims are directed to ***the use of blockchain tokens as payment for gaming transactions.***” Pet. 10 (citing, e.g., Ex. 1001, claim 1)¹¹; *see also id.* at 11 (citing Ex. 1001, 1:40–49) (“[t]he alleged invention is to use blockchain tokens as the currency of gaming transactions.”); *id.* at 12 (claim 1 recites “a way of managing token transactions for game play”). Petitioner contends that “[t]his concept [is] directed to multiple abstract ideas,” such as a “fundamental economic practice” and “game mechanics that the server or client computers perform in managing the game and associated tokens.” *Id.* (internal quotation marks and emphasis omitted). Petitioner further submits that claim 1’s “recitation that ‘tokens are not exchangeable between said plurality of game accounts’ compounds the abstraction with yet another fundamental economic practice, namely ***structuring economic transactions such as to comply with the law.***”

¹¹ In discussing Ground 1, the parties refer generally to “the claims” of the ’131 patent, or treat claim 1 as representative. Pet. 17-27; Prelim. Resp. 28-47. For that reason, and because we are tasked with determining whether the information presented in the Petitioner demonstrates that it is more likely than not that “at least 1 of the claims” of the ’131 patent is unpatentable (35 U.S.C. § 324(a)), we limit our discussion to claim 1.

Id. According to Petitioner, “[t]he non-exchangeability concept does no more than to emulate in a computer-environment an exchange of real-world arcade tokens, in a manner not subject to regulation by the SEC.” *Id.* (citing Ex. 1003 ¶¶ 63, 92).

As for whether the claimed abstract idea is integrated into a practical exception, Petitioner contends that the additional elements are “generic” and “do nothing to improve computer functionality or resolve a ‘technical problem,’ but ‘merely provide a generic environment’ in which to carry out an abstract idea.” Pet. 14–15 (quoting *In re TLI Comm’ns Pat. Lit.*, 823 F.3d 607, 615 (Fed. Cir. 2016) (Petitioner’s alteration omitted)). Petitioner asserts that “[t]he claims merely recite blockchain at a very high level of generality and use it as a tool to implement the abstract idea.” *Id.* at 15.

Patent Owner disagrees with Petitioner’s characterization of the focus of claim 1. Patent Owner contends that claim 1 is “focused on and recite[s] a technological improvement including the server gateway and the ‘blockchain interface . . . wherein said transactions are performed through said blockchain interface’ of the server gateway.” Prelim. Resp. 29 (second alteration in original). Patent Owner submits that the claims “do not just recite the idea of using blockchain tokens for gaming transactions, but rather a specific set of technical components and functions to improve on the problems with prior use of blockchain tokens for game transactions.” *Id.* (citing Ex. 2001 ¶¶ 38–49). According to Patent Owner, claim 1 “requir[es] transactions of gaming tokens to be processed through a server gateway such that the user and/or game interact indirectly with the blockchain through a blockchain interface.” *Id.* at 30 (citing Ex. 1001, 9:18–10:52, Fig. 2B; Ex. 2001 ¶¶ 38–49). Patent Owner contends that “[t]he server gateway would

have the capability to limit the extent to which transactions of gaming tokens are made (i.e., by limiting which transactions are sent from the server gateway to the blockchain for writing to the ledger via a blockchain node or sidechain).” *Id.* at 30–31 (citing Ex. 1001, 10:30–32). As Patent Owner explains:

the claimed invention changes the normal operation of game token transaction systems, which are typically either performed directly by a game server or directly by blockchain interactions. The claimed system does this by employing a unique computer architecture, including by adding intermediary structure (e.g., the game server and blockchain interface) that avoids a game server from processing transactions and prevents a user or game from directly writing transactions to a blockchain.

Id. at 36 (citing Ex. 2001 ¶¶ 38–49).

In sum, Petitioner’s position is that claim 1 is directed to the use of blockchain tokens as currency for gaming transactions, the use being limited in that exchange of tokens between game accounts is prohibited. Pet. 10–12. Patent Owner’s response is that Petitioner incorrectly ignores limitations in claim 1 directed to the server gateway and blockchain interface, which Patent Owner characterizes as representing “specific improvements in a computer architecture that enables the use of tokens across games and processing of such transactions through a blockchain.” Prelim. Resp. 29–35. We thus understand Patent Owner to be arguing that claim 1 is not directed to a judicial exception because the server-gateway and blockchain-interface limitations integrate any recited judicial exception into a practical application of the judicial exception. *See id.* at 39 (“By failing to analyze the additional limitations in the claims, Petitioner has necessarily failed to

meet its burden of showing that the claims are not integrated into a practical application.”).

For Step 2A, Prong 1, based on the current record, we agree with Petitioner that claim 1 recites an abstract idea. Claim 1 recites a system for processing game token transactions through a blockchain such that the tokens may be usable in a plurality of games by a single player/“game user computational device”/user game account, but cannot be exchanged between different user game accounts. *See* Ex. 1001, claim 1 (“A system for providing tokens for transactions in a plurality of games through a blockchain, . . . wherein said system further comprises a plurality of game user computational devices, each . . . associated with a game account . . . wherein said tokens are not exchangeable between said plurality of game accounts.”). According to the Specification, game tokens are a digital currency that a player may spend to access a game or for other in-game benefits, such as extra lives or new characters, or that a player may earn through gameplay. Ex. 1001, 1:52–54, 5:31–34, 8:38–41, 8:61–65. Thus, the processing of game token transactions is essentially the processing of exchanges of a currency for services, which is akin to the method of local processing of payments for remote goods determined to be a “fundamental economic practice”—and thus an abstract idea—in *Inventor Holdings, LLC v. Bed Bath & Beyond, Inc.*, 876 F.3d 1372, 1378–79 (Fed. Cir. 2017). Further, the prohibition against exchanging tokens between game accounts appears to be a necessary condition to avoid the tokens from being treated as Securities under the Securities Act. *See* Ex. 1010, 7, 9–16; Ex. 1011, 1. This limitation is therefore a manifestation of a legal obligation, which is considered one of the methods of organizing human activity recognized as

an abstract idea. MPEP § 2106.04(a)(2)(II). Accordingly, we agree with Petitioner that claim 1 recites a judicial exception.

Under Step 2A, Prong 2, based on the current record, we further agree with Petitioner that the additional limitations in claim 1, particularly the server-gateway and blockchain-interface limitations on which Patent Owner relies, do not integrate the recited judicial exception into a practical application.¹² Our review of the Specification indicates that the additional limitations in claim 1 recite generic computer components and functions that “merely use a computer as a tool to perform an abstract idea.” Patent Eligibility Guidance, 84 Fed. Reg. at 55. Claim 1 recites, for example, a “game user computational device” comprising “a memory” and “a processor.” Claim 1 further recites that the memory “stor[es]” instructions and the processor “perform[s] . . . operations” in accordance with the instructions, both routine computer activities. Moreover, the Specification confirms that the game user computational device can be a general-purpose computer:

User computational device 102 also comprises a processor 110 and a memory containing computer readable instructions 111. Functions of processor 110 preferably related to those performed by any suitable computational processor. . . . [M]emory 111 is configured for storing a defined native instruction set of codes[, and] [p]rocessor 110 is configured to perform a defined set of basic operations in response to receiving a corresponding basic instruction selected from the defined native instruction set of codes stored in memory 111.

¹² Patent Owner does not appear to be arguing that using a blockchain for game-token transactions, *per se*, integrates the judicial exception into a practical application.

Ex. 1001, 5:59–6:29.

The Specification also indicates that the “server gateway” can be implemented with generic computer components. *See* Ex. 1001, 6:65–7:2 (“Server gateway 120 preferably comprises a processor 130 and a memory with machine readable instructions 131, with related or at least similar functions to the processor and memory described above” in connection with the user computational device 102.). *See buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1354 (Fed. Cir. 2014) (“a claim directed to an abstract idea does not move into section 101 eligibility territory by merely requiring generic computer implementation.”) (quotation marks and alterations omitted).

As for the claimed “game user interface” and “blockchain interface,” the Specification does not describe these terms in any detail, indicating that they are to be understood as any hardware or software that performs the function of “interfacing” between the game user computational device and one or more game platforms or hardware (“game user interface”), or between the server gateway and a blockchain (“blockchain interface”). *See Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370 (Fed. Cir. 2015) (holding that “interactive interface limitation is a generic computer element” and not a “specific application of the abstract idea that provides an inventive concept”); *Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1262 (Fed. Cir. 2016) (characterizing a “graphical user interface” as a “generic feature[]” of the invention).

Likewise, the claimed “computational network” is described in functional and generic terms. Ex. 1001, 3:14–16.¹³

Patent Owner contends that the server gateway “limit[s] the extent to which transactions of gaming tokens are made (i.e., by limiting which transactions are sent from the server gateway to the blockchain for writing to the ledger via a blockchain node or a sidechain).” Prelim. Resp. 30–31. But claim 1 does not expressly require the server gateway to “limit” game-token transactions. Moreover, the Specification confirms that unclaimed components may limit such transactions. *See* Ex. 1001, 10:30–32 (“sidechain support contract 254, blockchain bridge 204 or token engine 134 could actually limit the extent to which exchanges can be made.”).

In sum, based on the current record, claim 1 recites a judicial exception, and the additional limitations of claim 1, considered separately and in combination, do not integrate the judicial exception into a practical application. Therefore, we agree with Petitioner that claim 1 is directed to a judicial exception.

3. *Step 2B*

Petitioner argues that claim 1 recites generic computer hardware and software elements, and “basic and fundamental function[s]” of a computer interface and computer. Pet. 17–19. Petitioner further asserts that the ’131 patent “does not clearly describe” how the game user computational device “directs any transactions,” but rather describes directing transactions “as a generic computer function of sending instructions to a server gateway 120.”

¹³ The Specification does not use the term “computational network” *per se*. It does, however, define “computer network” as two or more computer devices “in communication with each other.” Ex. 1001, 3:14–16.

Id. at 19–20 (Petitioner’s alterations omitted). Petitioner concludes that “[t]he ‘well-understood, routine, [and] conventional steps’ recited by the ’131 patent thus fail to ‘transform’ its legal compliance abstract concepts into something ‘inventive.’” *Id.* at 23 (quoting *Alice*, 573 U.S. at 221) (second alteration in original).

In response, Patent Owner refers us to the claim’s “use of a server gateway and blockchain interface through which game token transactions are processed in a manner that only indirectly interacts with the blockchain node,” which “is an improvement to the ‘background art’ that . . . both supports flexibility in transactions with in-game purchases and tokens, and yet is sufficiently controlled to avoid money laundering and other undesirable effects.” Prelim. Resp. 42–43 (citing Ex. 1001, 1:33–37). Patent Owner thus asserts that claim 1 requires the server gateway to limit such transactions. As discussed above, however, we are not persuaded, on the current record, that this is correct.

Patent Owner further argues that “Petitioner has provided no evidence that the combination of the above-described mechanics as described and claimed in the ’131 patent was ‘well-understood, routine, and conventional.’” Prelim. Resp. 44. We disagree. Petitioner supports its contention that claim 1 recites well-understood, routine, and conventional computer technology with citations to the ’131 patent and to the Plunkett Declaration. Pet. 17–23.

4. *Conclusion as to Ground 1*

For the foregoing reasons, and based on the current record, we determine that Petitioner has demonstrated that it is more likely than not that claim 1 is unpatentable under 35 U.S.C. § 101 as directed to ineligible

subject matter. Accordingly, institution of post-grant review on this basis is appropriate.

“When instituting post-grant review, the Board will authorize the review to proceed on all of the challenged claims and on all grounds of unpatentability asserted for each claim.” 37 C.F.R. § 42.208(a). We must “either (1) institute as to all claims challenged in the petition and on all grounds in the petition, or (2) institute on no claims and deny institution.” Patent Trial and Appeal Board Consolidated Trial Practice Guide (Nov. 2019)⁵, 5–6, 64; *see also PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1359–60 (Fed. Cir. 2018) (stating a decision to institute is “a simple yes-or-no institution choice respecting a petition, embracing all challenges included in the petition”). Thus, because we have decided to grant institution on Ground 1 with respect to claim 1, we must do the same for claims 2–17.

D. Ground 2: Claims 1–6 and 8–17—§ 102—Cotta

Petitioner contends that Cotta anticipates claims 1–6 and 8–17. Pet. 27–47. Patent Owner opposes. Prelim. Resp. 59–71. As discussed above, because we have decided to institute post-grant review on Ground 1, we must do the same for the remaining grounds as well. Nonetheless, we consider Patent Owner’s arguments in opposition to Ground 2.

1. Cotta

Cotta “relates to systems and methods for using a cloud gaming blockchain to provide assurance and tracking of virtual asset transactions, and . . . for anti-fraud implementations.” Ex. 1005 ¶ 1. Cotta describes, among other things, a system for facilitating trade of virtual gaming assets. *Id.* ¶ 78. Figure 6 of Cotta illustrates such a system, and is reproduced below:

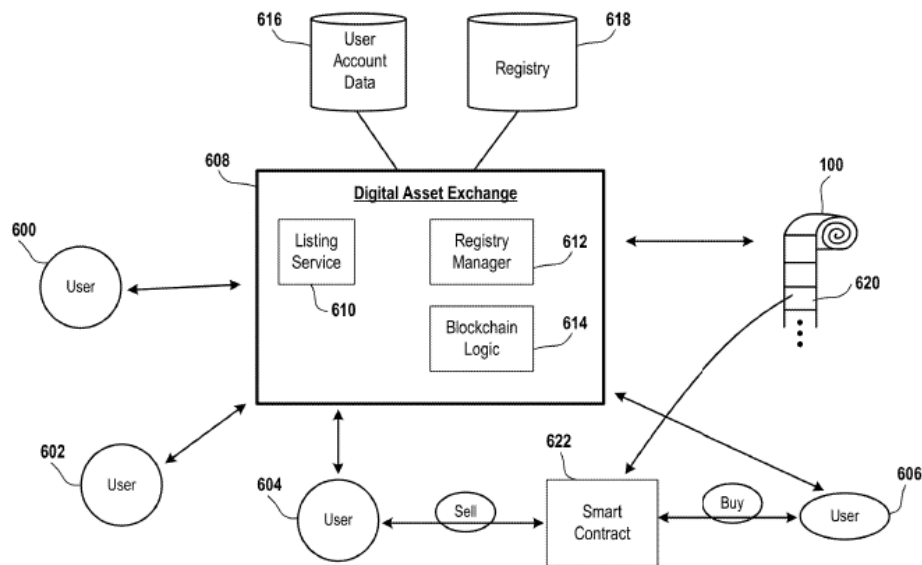


Fig. 6

In the system depicted in Figure 6 of Cotta, “various users 600, 602, 604, and 606 access (via various user devices) a digital asset exchange 608.” *Id.* “The digital asset exchange 608 is configured to match sellers of virtual assets with potential buyers.” *Id.* “[T]ransactions of virtual assets carried out by digital asset exchange 608 [are] added to blockchain 100.” *Id.* ¶ 81. Digital asset exchange 608 includes blockchain logic 614 “to carry out operations for writing virtual asset transactions to blockchain 100.” *Id.* Blockchain logic 614 “can be implemented by one or more nodes of the node network.” *Id.* Blockchain 100 may support self-executing smart contracts, such as smart contract 622; in Figure 6, smart contract 622 is configured to execute a virtual-asset transaction between user 604 and 606. *Id.* ¶ 83. Under some circumstances, digital asset exchange 608 can facilitate trades of virtual assets from different publishers or games, and “virtual assets from different publishers and/or games can be traded for each other in some implementations.” *Id.* ¶ 92.

2. *Principles of Law*

“Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim.” *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458 (Fed. Cir. 1984).

3. *Whether the Petition Improperly Incorporates the Plunkett Declaration by Reference*

Patent Owner argues that “Petitioner’s arguments contained in Thomas Plunkett’s Declaration . . . but not in the Petition should not be considered given they were not made in the Petition itself.” Prelim. Resp. 56 (citing, e.g., *Cisco Sys., Inc. v. CCation Techs., LLC*, IPR2014-00454, Paper 12 at 8 (PTAB Aug. 29, 2014) (informative) (“*Cisco*)). Patent Owner contends that “[t]hroughout the Petition, Petitioner relies on conclusory statements within the Petition that cite generally the Plunkett Declaration,” which “amounts to improper incorporation by reference.” *Id.* at 57.

Section 42.6(a)(3) states that “[a]rguments must not be incorporated by reference from one document into another document.” The purpose of this rule to prevent a party from circumventing page limits and to conserve Board resources. *See Cisco*, 10 (“incorporation by reference of numerous arguments from Dr. Roy’s 250-page Declaration into the Petition serves to circumvent the page limits imposed on petitions for *inter partes* review, while imposing on our time by asking us to sift through over 250 pages of Dr. Roy’s Declaration . . . to locate the specific arguments corresponding to the numerous paragraphs cited to support Petitioner’s assertions.”).

Patent Owner does not identify specific arguments in Mr. Plunkett's declaration that are not in the Petition, or specific conclusory statements within the Petition that are overly reliant on the Plunkett Declaration. Nor have we found any improper incorporation in the course of our own review. Accordingly, we are not persuaded that we should ignore any portion of the Plunkett Declaration on this basis.

4. *Discussion*

a. Independent Claim 1

Petitioner contends that Cotta discloses all of the limitations of claim 1. Pet. 28–36. Petitioner supports these contentions with citations to Cotta and to the testimony of its declarant, Mr. Plunkett. *Id.* (citing Ex. 1005, Abstract, ¶¶ 46–47, 55–57, 59, 62, 78–79, 81–83, 88, 92, 115, 117–118, Figs. 2, 3, 6, 9; Ex. 1003 ¶¶ 113–119, 121–130).

Patent Owner does not dispute, at this stage of the proceeding, that Cotta teaches the preamble of claim 1 and limitations 1[e], 1[f], 1[g], and 1[i]. Patent Owner does dispute, however, that Cotta discloses limitations 1[a], 1[b], 1[c], 1[d], and 1[h]. We discuss the disputed limitations below.

Limitation 1[a]: “a game user computational device for being operated by a game user, . . . wherein said game user computational device directs transactions of the tokens during gameplay with each of said plurality of games”

Petitioner relies on Figure 6 and paragraphs 48, 62, 83, and 88 of Cotta; and on paragraphs 115–117 of the Plunkett Declaration; to support its contention that Cotta discloses limitation 1[a]. Pet. 30. For example, Petitioner refers to “users” and “user devices” 600, 602, 604, and 606 accessing “digital asset exchange 608” to buy and sell digital assets. *Id.* (citing Ex. 1005 ¶¶ 48, 78, 82, Fig. 6).

Patent Owner responds that Petitioner’s contentions are deficient because “Petitioner’s entire argument that Cotta discloses this limitation consists of Petitioner paraphrasing the claim language, quoting a portion of Cotta, and concluding, without explanation, that Cotta discloses the limitation.” Prelim. Resp. 60. Patent Owner asserts that “Petitioner does not identify or explain, let alone with any particularity or in detail, the significance of the cited portions of Cotta, namely how the quoted portions of Cotta disclose how a ‘game user computational device *directs transactions* of the tokens *during gameplay*’ as the claim requires.” *Id.*

Patent Owner relies in support of this argument on *D.O.J. v. Discovery Patents, LLC*, IPR2016-01035, Paper 11 (PTAB Nov. 15, 2016) (“*Discovery Patents*”).¹⁴ In that case, the Board noted that the petitioner’s contentions for a particular limitation “consist of only a claim chart, without any accompanying argument or discussion, and depicting” various figures of the reference. *Id.* at 14. The Board determined the petition to be deficient because it “does not identify or explain, let alone with particularity or in detail, the significance of the cited evidence, namely, how the figures and brief excerpts of [the reference] disclose [the limitation].” *Id.* at 15.

Importantly, however, the panel “disagree[d] that reliance only upon claim charts containing the claim elements and quotations and citations (and figures) from prior art references allegedly disclosing those elements is *per se* insufficient.” *Id.* at 9. Rather, according to this decision, “[e]ach case is

¹⁴ *Discovery Patents* has not been designated Precedential or Informative.

fact specific,” and further explanation may be unnecessary if the quotes and citations are sufficiently clear. *Id.*¹⁵

We agree with *Discovery Patents* that the need for additional explanation depends on the facts of each case. Further, we disagree with Patent Owner that Petitioner’s discussion of this claim element is limited to citations to Cotta and devoid of analysis or explanation. Petitioner states, for example:

Cotta’s user devices 600, 602, 604, and 606 direct transaction of the virtual assets during gameplay: “the block 620 of the blockchain 100 may include a smart contract 622 configured to execute a transaction between the user 604 and the user 606. For example, the user 604 may be selling a virtual asset while the user 606 seeks to buy the virtual asset. The smart contract 622 can be configured to deliver the virtual asset to the buyer upon payment of an agreed upon amount of virtual currency.”

Pet. 30 (quoting Ex. 1005 ¶ 83) (citing Ex. 1003 ¶ 116); *see id.* (noting Cotta’s disclosure that it uses the terms “user” and “user device” interchangeably); *id.* (citing Ex. 1005 ¶ 48; Ex. 1003 ¶ 115). It is reasonably clear from Petitioner’s characterization of the quoted excerpt that Petitioner considers user devices 600, 602, 604, and 606 to correspond to the claimed game user computational devices, and that the exchange of a digital asset between user 604 and user 606 via blockchain 100 and smart contract 622

¹⁵ The panel also stated that “where it is not clear which elements of the claims are allegedly disclosed by a quotation or citation to a reference, the lack of additional explanation by a petitioner can be detrimental,” and may fail to satisfy the statutory requirement that a petitioner must “identif[y], in writing and particularity . . . the evidence that supports the grounds for the challenges to each claim.” *Discovery Patents*, 9 (quoting 35 U.S.C. § 312(a)(3) (alterations in original)).

(i.e., “execut[ing] a transaction” between users 604 and 606) corresponds to the game user computational devices directing transactions of tokens. Thus, we are not persuaded that Petitioner’s discussion of limitation 1[a] is *per se* deficient.

Patent Owner further argues that the portions of Cotta on which Petitioner relies “do not disclose ‘game user computational device directs transactions of the tokens *during gameplay*.’” Prelim. Resp. 61. Patent Owner asserts that although Cotta may disclose that “a virtual asset may be earned by the user A through gameplay activity,” and that a smart contract can be “configured to make transfer of a virtual asset contingent on fulfillment of a gaming activity-related condition,” these disclosures “say nothing about *when* the transaction related to this earned (or contingently earned) asset takes place.” *Id.* According to Patent Owner, “[t]he transaction could be before or after gameplay.” *Id.*

At this stage of the proceeding, Patent Owner’s argument is not persuasive. Claim 1 is an apparatus claim, not a method claim. Therefore, claim 1 does not recite the step of “direct[ing] transactions of the tokens during gameplay.” Instead, the term “directs transactions of the tokens during gameplay” is properly understood as a functional limitation modifying “game user computational device.” *See In re Swinehart*, 439 F.2d 210, 212 (CCPA 1971) (a functional limitation “define[s] something . . . by what it does rather than by what it is”); *Nazomi Commc'ns, Inc. v. Nokia Corp.*, 739 F.3d 1339, 1344 (Fed. Cir. 2014) (interpreting device claims to require particular functionality); *Typhoon Touch Techs., Inc. v. Dell, Inc.*, 659 F.3d 1376, 1381 (Fed. Cir. 2011) (holding that district court did not err in interpreting “memory for storing” to require that the memory is

actually programmed or configured to store the data collection application). Petitioner has cited to evidence that Cotta's user devices buy and sell digital assets via a blockchain. Pet. 30 (citing Ex. 1005 ¶ 83; Ex. 1003 ¶ 116). This evidence is sufficient, at this stage of the proceeding, to show the claimed functionality.

Limitation 1[b]: said game user computational device comprising a game user interface for interacting with the plurality of games; . . . wherein said game user interface is operable across a plurality of different types of gaming platforms or hardware

Petitioner relies on paragraphs 48 and 55 of Cotta, and paragraph 118 of Mr. Plunkett's Declaration, to disclose this limitation. Pet. 31. Patent Owner responds that "assuming, *arguendo*, that Petitioner intended for the 'user device' in Cotta as disclosure of the 'game user computational device,' Petitioner has not pointed to anything in Cotta that would constitute a 'game user interface'" that is "operable across a plurality of different types of gaming platforms or hardware." Prelim. Resp. 63.

Although Petitioner does not spell out, in detail, how paragraphs 48 and 55 of Cotta teaches limitation 1[b], the connection between the limitation and the evidence cited is sufficiently clear at this stage of the proceeding. Cotta teaches, for example, that "the user typically interfaces with systems in accordance with the present disclosure by using or operating a user device" (Ex. 1005 ¶ 48), and that "user devices 202 initiate asset transactions relating to virtual assets that are utilized for one or more video games" (*id.* ¶ 55). This evidence, and Mr. Plunkett's testimony that Cotta teaches limitation 1[b], have not been rebutted at this stage of the proceeding.

Limitation 1[c]: a server gateway for operating a blockchain interface; . . . wherein said transactions are performed through said blockchain interface of said server gateway

Petitioner asserts that “Cotta discloses a digital asset exchange 608 that includes blockchain logic 614 for interfacing with a blockchain 100.” Pet. 31 (citing Ex. 1005 ¶ 81; Ex. 1003 ¶ 119).

Patent Owner first responds that Petitioner errs by not interpreting “server gateway” as a means-plus-function claim limitation under 35 U.S.C. § 112(f). Prelim. Resp. 65. As stated above, however, we are not persuaded, on the current record, that “server gateway” should be interpreted in this manner.

Patent Owner next argues that Petitioner’s “bare bones contention lacks argument or discussion and does not even reference the claim language,” and is therefore deficient under *Discovery Patents*. Prelim. Resp. 66. Again, however, there is no *per se* prohibition against relying only on citations to and quotes of the record. Here, it is reasonably clear that Petitioner is contending that Cotta’s digital asset exchange 608 corresponds to the claimed server gateway, and Cotta’s blockchain logic 614 corresponds to the claimed blockchain interface.

Patent Owner further argues that the “server gateway” and “blockchain interface” recited in limitation 1[c] “allow[] for *indirect* interaction with the blockchain,” but “digital asset exchange 608 of Cotta, which contains the blockchain logic 614[,] interacts **directly** with blockchain 100 by writing to the blockchain.” Prelim. Resp. 67, 69. Patent Owner contends that “[a]s an example of such indirect interaction, the ‘131 patent explains that the blockchain interface interacts with the separate

blockchain bridge, and it is the separate blockchain bridge that has the capability to read from/write to a blockchain network via a blockchain node or smart contract.” *Id.* at 67–68 (citing Ex. 1001, 9:3–5, 9:18–50).

On the current record, this argument is unpersuasive. First, limitation 1[c] does not expressly recite “indirect interaction” with a blockchain; instead, it requires that “transactions are performed through said blockchain interface of said server gateway.” Patent Owner’s description of Cotta’s digital asset exchange 608 interacting “with the blockchain through the ‘blockchain logic 614 to carry out operations for writing virtual asset transactions to the blockchain 100’” (Prelim. Resp. 68) would seem to satisfy this limitation, notwithstanding Patent Owner’s characterization of this interaction as “direct.”

Second, it is not entirely clear what Patent Owner means by interacting “indirectly” with a blockchain. Patent Owner points to Figure 2B as “an example” of indirect interaction, but does not expressly contend that indirect interaction is limited to the configuration depicted in this figure. To the extent that Figure 2B defines “indirect interaction,” it would apparently require the use of a blockchain bridge. However, Patent Owner’s declarant, Dr. Freund, suggests that a blockchain bridge is itself a blockchain. *See* Ex. 2001 ¶ 38 (“for simplicity and based on the definition of a blockchain in the ’131 patent, the word blockchain and blockchain node can refer to either a layer 1 blockchain such as Ethereum or Bitcoin, a layer 2 protocol, a sidechain, or a bridge protocol”) (footnote omitted). Thus, Figure 2B may itself illustrate “direct” interaction between the blockchain bridge and a blockchain.

Limitation 1[d]: a computational network for connecting said game user computational device and said server gateway

Petitioner asserts that Cotta Figure 6 depicts “a network of devices involved in the transaction of virtual assets, including user devices 600, 602, 604, 606 and the digital asset exchange 608 (i.e., server gateway).” Pet. 31 (citing Ex. 1005 ¶ 78, Fig. 6). Petitioner also contends that “Cotta’s Fig. 2 depicts a ‘node network’ 204 that connects user devices 202 to the networked gaming service 206 and the blockchain that is stored at nodes 200a-e.” *Id.* (citing Ex. 1005 ¶¶ 56, 57; Ex. 1003 ¶¶ 121, 122).

Patent Owner responds that “Petitioner has failed to identify a ‘game user computational device’ in Cotta . . . , much less a ‘computational network’ for connecting the specific components.” Prelim. Resp. 70. As we disagree that Petitioner failed to identify Cotta’s teaching of a game user computational device, this argument is unpersuasive.

Limitation 1[h]: wherein said system further comprises a plurality of game user computational devices, each game user computational device being associated with a game account for said plurality of games and for transactions of said tokens

Petitioner asserts that “Cotta at Fig. 6 shows a plurality of user devices,” and Figure 3 of Cotta “shows a wallet 302 associated with a user device 300,” which “controls access to game accounts for a plurality of games and the transaction of virtual assets for those games.” Pet. 34–35 (citing Ex. 1005 ¶¶ 48, 59, 78, Figs. 3, 6; Ex. 1003 ¶ 127). Petitioner further contends that, optionally, Cotta’s “user devices are associated with a game account for a plurality of games,” a “single game account can correspond to a plurality of games,” and “virtual assets from the plurality of games can all

be traded via the same digital asset exchange 608 disclosed by Cotta.” *Id.* at 35 (citing Ex. 1005 ¶¶ 41, 55, 92; Ex. 1003 ¶ 128).

In response, Patent Owner only addresses Petitioner’s contentions regarding paragraph 55 of Cotta: “Petitioner only alleges that ‘Cotta further provides that the user devices are associated with a game account for a plurality of games.’” Prelim. Resp. 71 (citing Pet. 35; Ex. 1005 ¶ 55). According to Patent Owner, “Petitioner provides no explanation for how [paragraph 55] of Cotta discloses ‘a game account associated with said game user computational device.’” *Id.* Patent Owner does not address, and therefore leaves unrebutted, Petitioner’s assertions regarding Cotta’s user devices and wallet 302 associated with user device 302.

b. Independent Claim 16

Independent claim 16 is reproduced below (reformatted for clarity and to add Petitioner’s limitation designations provided in Ex. 1014):

16. [16[p]]A system for providing tokens for transactions in a game through a blockchain, the system comprising

[16[a]] a game user computational device for being operated by a game user, said game user computational device comprising a game user interface for interacting with the game;

[16[b]] a server gateway for operating a blockchain interface;

[16[c]] a game server for operating the game, including for determining tokens credited and/or consumed during gameplay by said game user computational device,

[16[d]] said game server operating a game account associated with said game user computational device, according to which said game user computational device is permitted to interact with the game;

[16[e]] a wallet for storing the plurality of tokens or a key for accessing same; and

[16[f]] a computational network for connecting said game user computational device, said game server, said wallet and said server gateway;

[16[g]] wherein said wallet is associated with said game account;

[16[h]] wherein said game user computational device directs transactions of the tokens during gameplay according to tokens stored in said wallet, and

[16[i]] wherein said transactions are performed through said blockchain interface of said server gateway.

In brief, claim 16 differs from claim 1 in that it: (1) is directed to a system for providing tokens for transactions in “a game” rather than in “a plurality of games”; (2) includes limitations directed to a “game server” (limitations 16[c] and [d]); and (3) includes limitations direct to a “wallet” (limitations 16[e] and [g]).

Petitioner contends that Cotta discloses all of the limitations of claim 16. Pet. 36–40. Petitioner supports these contentions with citations to Cotta and to the testimony of its declarant, Mr. Plunkett. *Id.* Patent Owner’s responses to Petitioner’s contentions are substantively the same as those for claim 1, which we addressed above.

c. Dependent Claims 2–6, 8–15, and 17

Petitioner contends that Cotta discloses the additional limitations of dependent claims 2–6, 8–15, and 17. Pet. 41–47. At this stage of the proceeding, Patent Owner does not separately address these dependent claims or Petitioner’s contentions regarding them.

E. *Ground 3: Claim 7—§ 103—Cotta and Campbell*

Petitioner contends that claim 7 would have been obvious over Cotta and Campbell. Pet. 48–49. At this stage of the proceeding, Patent Owner does not raise any arguments specifically directed to this Ground.

*F. Ground 4: Claims 1–6, 8, 14, and 15—
§ 103—Knight and PoQ Whitepaper*

Petitioner contends that claims 1–6, 8, 14, and 15 would have been obvious over Knight and PoQ Whitepaper. Pet. 52–63. Patent Owner opposes. Prelim. Resp. 80–92.

1. Knight

Knight describes “a system, method, platform and software for conversion of in-game, virtual currency to a cryptocurrency on a decentralized ledger,” such as a blockchain. Ex. 1006 ¶¶ 50, 59. Figure 15 of Knight describes such a system, and is reproduced below:

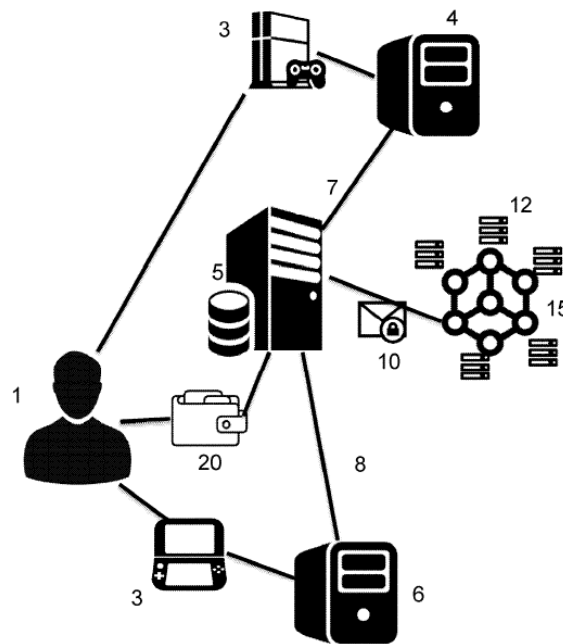


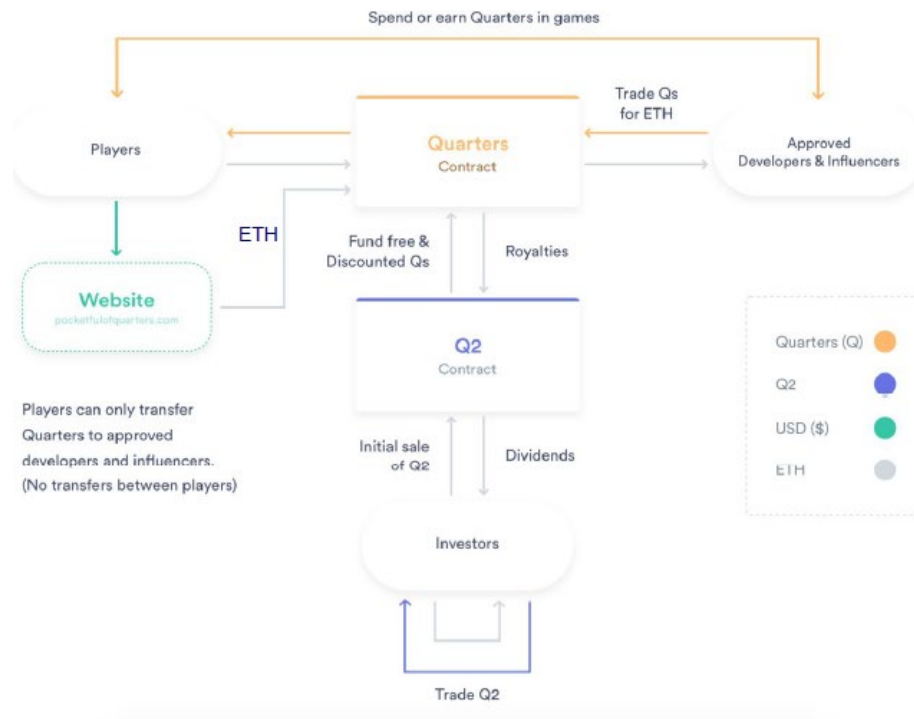
Fig. 15

The system shown in Figure 15 of Knight comprises one or more gaming servers 4, 6; decentralized ledger 15 operable by a plurality of computing nodes 12; transaction server/software 5 for communicating encrypted messages 10 between the gaming server and the decentralized ledger; user devices 3 in communication with the gaming servers; and user

wallets 20. *Id.* ¶ 50.¹⁶ The system may enable transactions of digital assets between different games via the distributed ledger. *Id.* ¶ 75.

2. *PoQ Whitepaper*

PoQ Whitepaper “describes a decentralized solution aimed to solve the problem of game currency fragmentation.” Ex. 1008, 3. The solution involves creating a “decentralized game currency,” named “Quarters,” that “can be used across games.” *Id.* PoQ Whitepaper states “[l]ike ‘Chuck E. Cheese’s’ and other arcade tokens, you can buy Quarters but you can’t redeem them outside of the gaming ecosystem.” *Id.* at 10. PoQ Whitepaper contains a diagram of a “Quarters Ecosystem,” and is reproduced below:



Quarters Ecosystem: From Sources to Sinks

¹⁶ Paragraph 50 of Knight incorrectly refers to Figure 13 instead of Figure 15.

As shown in the above diagram, game players are able to buy Quarters from a website via a “Quarters Contract,” i.e., a blockchain smart contract. *Id.* at 10–12. Players then “transfer Quarters to developers in order to play games.” *Id.* at 12. As stated on the diagram, “[p]layers can only transfer Quarters to approved developers and influencers. (No transfers between players).” *Id.* at 11. The above figure is substantially the same as Figure 8 of the ’131 patent. *See* Ex. 1001, Fig. 8.

3. *Principles of Law*

“A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in [35 U.S.C. § 102], if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains.” 35 U.S.C. § 103. Obviousness is a question of law based on underlying findings of fact. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). The underlying factual considerations “include the scope and content of the prior art, the differences between the prior art and the claimed invention, the level of ordinary skill in the art, and any relevant secondary considerations” of non-obviousness, including commercial success of the patented product or method, a long-felt but unmet need for the functionality of the patented invention, and the failure of others who have unsuccessfully attempted to accomplish what the patentee has achieved. *Id.* at 17–18. The obviousness analysis should not be conducted “in a narrow, rigid manner,” but should instead focus on whether a claimed invention is merely “the

result[] of ordinary innovation,” which is not entitled to patent protection.
KSR Int’l Co. v. Teleflex Inc., 550 U.S. 398, 406 (2007).

4. *Discussion*

a. Claim 1

Petitioner contends that the combination of Knight and PoQ Whitepaper teaches all of the limitations of claim 1, and that it would have been obvious to one of ordinary skill in the art to combine the references. Pet. 51–63.

Patent Owner does not dispute, at this stage of the proceeding, that the combination of Knight and PoQ Whitepaper teaches the preamble and limitations 1[b], 1[d], 1[e], 1[f], 1[g], and 1[i].

Patent Owner does dispute, however, that Petitioner has adequately shown that Knight is analogous art; that the combination teaches limitations 1[a], 1[c], and 1[h]; and that one of ordinary skill in the art would have been motivated to combine the references. Prelim. Resp. 80–92. We discuss each of these issues in turn.

Whether Knight is Analogous Art

Petitioner asserts that Knight and PoQ Whitepaper “are analogous art from the same field of endeavor.” Pet. 51 (citing Ex. 1003 ¶¶ 176–177). Patent Owner correctly responds that the analogous-art requirement requires that the reference be in the same field of endeavor as the claimed invention, not other cited references. *See In re Bigio*, 381 F.3d 1320, 1325–27 (Fed. Cir. 2004) (determining whether reference is in same field of endeavor as claimed invention). A preliminary review of Knight, however, indicates that it is well within the same field of endeavor as the invention described and claimed in the ’131 patent. Knight concerns the exchange of digital gaming

assets—e.g., an “in-game currency”—using a blockchain. Ex. 1006 ¶¶ 2, 4, 8, 13, 50–52. This is substantially similar to the ’131 patent’s description of the relevant field, i.e., “relat[ing] to a system and method for blockchain tokens or specialized virtual currency for gaming, and in particular, for such a system and method in which transactions related to such blockchain transactions [sic, tokens] are controlled.” Ex. 1001, 1:6–10. Patent Owner correctly notes that there are differences between Knight and the ’131 patent, but “[t]he field of endeavor of a patent is not limited to the specific point of novelty, the narrowest possible conception of the field, or the particular focus within a given field.” *Unwired Planet, LLC v. Google, Inc.*, 841 F.3d 995, 1001 (Fed. Cir. 2016); see *Donner Tech., LLC v. Pro Stage Gear, LLC*, 979 F.3d 1353, 1361 (Fed. Cir. 2020) (“a reference can be analogous art with respect to a patent even if there are significant differences between the two references”). Further, we are directed to “construe the scope of analogous art broadly, in keeping with [the Supreme Court’s] admonition that ‘familiar items may have obvious uses beyond their primary purposes, and a person of ordinary skill often will be able to fit the teachings of multiple patents together like pieces of a puzzle.’” *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1238 (Fed. Cir. 2010) (quoting *KSR*, 550 U.S. at 402 (emphasis omitted)). To the extent that Patent Owner continues to dispute that Knight is analogous art after institution, we will resolve that issue after both parties have the opportunity to address the issue.

Whether Petitioner has articulated a sufficient reason to combine the references

Petitioner contends that:

A POSITA would have been motivated to combine Knight and the PoQ Whitepaper, as they are analogous art from the same field of endeavor. Ex. 1003 at ¶¶176–177. Both Knight and the PoQ Whitepaper are directed to utilizing tokens in a gaming ecosystem with blockchain technology. Furthermore, the PoQ Whitepaper provides motivations to combine references by identifying problems with existing game currencies and tokens and how its proposed “Game-agnostic Digital Currency” addresses those issues. Ex. 1008 at 4–6. Finally, both Knight and the PoQ Whitepaper disclose the use of the same tools and technologies such as Smart Contracts, Ethereum, ERC-20 tokens, and software development kits (SDKs) to achieve similar goals, enabling the transaction of tokens. Such direct similarities would ease the ability for a POSITA to combine the references. Ex. 1003 at ¶176.

It would be obvious to a POSITA to look to the disclosure of a gaming only game-agnostic token and surrounding ecosystem in the PoQ Whitepaper to augment Knight’s teachings of a system and method for making transactions involving in-game digital assets and/or cryptocurrency tokens on a distributed ledger. Ex. 1003 at ¶177.

Pet. 51–52

Patent Owner responds, first, that Petitioner has not established that Knight is analogous prior art. Prelim. Resp. 81–85. We addressed this issue above. Patent Owner next argues that “Petitioner merely alleges that PoQ Whitepaper identifies problems to be solved, but does not give any explanation for why such problems would motivate a POSITA to combine PoQ Whitepaper with Knight.” *Id.* at 86. Patent Owner contends that “Petitioner did not even explain what the problems are that PoQ Whitepaper

identifies,” or “how they would lead a POSITA to combine PoQ Whitepaper and Knight.” *Id.* at 86–87.

We agree that Petitioner does not identify the specific problems that PoQ Whitepaper identifies, and how those problems would have motivated the combination of PoQ Whitepaper and Knight. It is also not entirely clear what Petitioner means by “augment[ing]” Knight’s teachings with those of PoQ Whitepaper. We will decide the adequacy of Petitioner’s reason to combine the references after both parties have had the opportunity to fully brief the issue.

Limitation 1[a]: a game user computational device for being operated by a game user, . . . wherein said game user computational device directs transactions of the tokens during gameplay with each of said plurality of games

Petitioner relies on Knight to teach this limitation. Pet. 53–54 (citing Ex. 1006 ¶¶ 50–51, 54–56, Fig. 11; Ex. 1003 ¶¶ 184–185, 187–189).

Petitioner also contends that “PoQ Whitepaper, discloses, in addition to and/or in combination with Knight, directing transitions [sic] of tokens during gameplay.” *Id.* at 54–55 (citing Ex. 1008, 11; Ex. 1003 ¶ 190).

Patent Owner argues that “Knight fails to disclose 1[a]’s . . . requirement of “*transactions of the tokens during gameplay.*” Prelim. Resp. 90. This is similar to Patent Owner’s argument with respect to Cotta disclosing this limitation. *Id.* at 60–62. For the reasons stated above, on the current record, this argument is unpersuasive.

Limitation 1[c]: a server gateway for operating a block-chain interface; . . . wherein said transactions are performed through said blockchain interface of said server gateway

Petitioner contends that any one of the computing nodes 12 of blockchain 15 depicted in Figure 15 of Knight corresponds to the claimed server gateway. Pet. 56 (citing Ex. 1006 ¶¶ 50, 58–60; Ex. 1003 ¶¶ 198–199). Petitioner also contends that transaction module 5 depicted in Figure 15 of Knight corresponds to the claimed server gateway. *Id.* at 57–58 (citing Ex. 1006 ¶¶ 16, 50, 62, 63; Fig. 15; Ex. 1003 ¶¶ 202–203, 204).

Patent Owner responds that the claimed server gateway and blockchain interface do not write “directly” to a blockchain node, and therefore Knight’s computing nodes 12 and transaction module 5, which do write directly to the blockchain, cannot correspond to the claimed server gateway. Prelim. Resp. 73–74 (citing Ex. 1001, Fig. 2B; Ex. 1006 ¶¶ 50, 56, 58, 60; Ex. 2001 ¶ 56).

As we noted above in discussing Ground 2, claim 1 does not expressly require that the server gateway and blockchain interface interact “indirectly” with a blockchain (or, stated differently, prohibit “direct” interaction with a blockchain). Instead, claim 1 recites “said transactions are performed through said blockchain interface of said server gateway.” On this record, we agree with Petitioner that Knight teaches this limitation. Knight teaches, for example, a “transaction module,” which “may be run on a transaction server,” that “operates between the gaming platform and the distributed ledger.” Ex. 1006 ¶¶ 16, 56, 62. The transaction module determines whether a transaction initiated by a user conforms to “transaction limits and rules,” and, if so, “[t]he user and game accept this transaction,” and the transaction is processed on the blockchain. *Id.* ¶¶ 63, 71–72, Fig. 4.

Limitation 1[h]: wherein said system further comprises a plurality of game user computational devices, each game user computational device being associated with a game account for said plurality of games and for transactions of said tokens

Petitioner relies on paragraphs 2, 50, 56–57 and 72–3, and Figures 7 and 8, to teach this limitation. Pet. 62. Patent Owner responds that “Petitioner never explains how Knight’s ‘user account’ is associated with a game user computational device.” Prelim. Resp. 92.

We disagree. Petitioner refers to Knight’s teaching of a plurality of “user devices (3) in communication with gaming services,” and that “[e]ach user may have an account (i.e., username and password) with the gaming platform and an associated pair of public and private keys.” Pet. 62 (quoting Ex. 1006 ¶¶ 50, 56) (alteration in original). Petitioner concludes from these teachings that Knight “discloses and/or renders obvious ‘each game user computational device being associated with a game account for said plurality of games.’” At this stage of the proceeding, Patent Owner does not explain why this conclusion is erroneous, and we find it persuasive, based on the current record.

b. Claims 2–6, 8, 14, and 15

At this stage of the proceeding, Patent Owner does not raise arguments specific to claims 2–6, 8, 14, and 15.

G. *Ground 5: Claim 7—§ 103—Knight and PoQ Whitepaper*

At this stage of the proceeding, Patent Owner does not raise arguments specific to claim 7.

H. Ground 6: claims 9–13—§ 103—Knight, PoQ Whitepaper, and Cotta

At this stage of the proceeding, Patent Owner does not raise arguments specific to claims 9–13.

I. Ground 7: Claims 16 and 17—§ 102—Knight

Patent Owner’s arguments regarding claim 16 are substantially the same as those raised in connection with claim 1 and Ground 4, discussed above. Prelim. Resp. 72–79. At this stage of the proceeding, Patent Owner does not raise arguments specific to claim 17.

III. CONCLUSION

For the foregoing reasons, we determine that the Petition shows that it is more likely than not that the Petitioner would prevail with respect to at least one of challenged claims 1–17 of the ’131 patent. Accordingly, we institute post-grant review of claims 1–17 of the ’131 patent on all asserted grounds. At this stage of the proceeding, no final determination has yet been made with regard to the patentability of any of the challenged claims or any underlying factual or legal issues, including the construction of claim terms. The final determination will be based on the record as developed during the post-grant review.

IV. ORDER

For the reasons given, it is

ORDERED that, pursuant to 35 U.S.C. § 324(a), post-grant review of claims 1–17 of the ’131 patent on all asserted grounds is *instituted*; and

FURTHER ORDERED that, pursuant to 35 U.S.C. §§ 324(c) and (d), and 37 C.F.R. § 42.4(b), notice is hereby given of the institution of trial, which will commence on the entry date of this Decision.

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