Trials@uspto.gov
571-272-7822

Paper No. 42
Mailed: September 6, 2019

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SUPERCELL OY,
Petitioner,

v.

GREE, INC.,
Patent Owner.

Case PGR2018-00039
Patent 9,669,308 B2

Before MICHAEL W. KIM, LYNNE H. BROWNE,
and CARL M. DEFRANCO, *Administrative Patent Judges*.

BROWNE, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 328(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

Supercell Oy ("Petitioner") filed a Petition ("Pet.") for post-grant review of claims 1–8 of U.S. Patent No. 9,669,308 B2 ("the '308 patent") (Ex. 1001) pursuant to 35 U.S.C. §§ 321–329. Paper 1. GREE, Inc. ("Patent Owner") filed a Preliminary Response ("Prelim. Resp."). Paper 6.

On September 13, 2018, we issued a Decision ordering that "pursuant to 35 U.S.C. § 324, a post-grant review is hereby instituted for claims 1–8 of the '308 patent with respect to all grounds set forth in the Petition." Paper 10, 24, "Dec."[1] After institution, Patent Owner filed a Patent Owner's Response (Paper 16, "PO Resp.") and a Patent Owner's Contingent Motion to Amend (Paper 15, "PO MTA"). In reply, Petitioner filed a Petitioner's Reply to Patent Owner's Response (Paper 24, "Pet. Reply") and a Petitioner's Opposition to Motion to Amend (Paper 25, "Pet. Opp. to MTA"). In response, Patent Owner filed a Patent Owner's Sur-Reply (Paper 29, "PO Sur-Reply") and a Patent Owner's Reply to Opposition to Motion to Amend (Paper 28, "PO Reply to Opp. to MTA"). In reply, Petitioner filed a Petitioner's Sur-Reply to Opposition to Patent Owner's Motion to Amend (Paper 33, "Pet. Sur-Reply to Opp. to MTA"). Patent Owner and Petitioner presented oral arguments on June 19, 2019.

The Board has jurisdiction under 35 U.S.C. § 6. In this Final Written Decision, after reviewing all relevant evidence and assertions, we determine that Petitioner has met its burden of showing, by a preponderance of the evidence, that claims 1–8 of the '308 patent are unpatentable. We further determine that

[1] Patent Owner filed a Request for Rehearing (Paper 13), which was denied. Paper 23 ("Req.").

Petitioner has met its burden by showing, by a preponderance of the evidence, that the proposed amended claims are unpatentable.

A. The '308 Patent

The '308 patent is entitled "Non-transitory Computer Readable Recording Medium, Game Server, and Control Method." Ex. 1001, (54). The '308 patent aims to "provide a networked multiplayer battle game over a network . . . [wherein] the battle in the battle game [operates in] . . . one of a first mode . . . based on user operations and a second mode . . . with fewer user operations than in the first mode." *Id.* at (57).

The '308 patent explains that in a conventional battle game, during one battle, the user needs to select a command to determine the action of the player character many times, which may make operation troublesome. Ex. 1001, 1:41–44. As a consequence of this difficulty, the object of the '308 patent is to make the user operation in a battle game less troublesome. *Id.* at 1:46–49. According to the '308 patent, this objective is achieved by utilizing instructions which direct the game computer to store a battle history including an identifier of an opponent with whom a user has battled in the battle game, determine (based on the battle history and on an identifier of an opponent with whom a battle begins) a procedure for conducting the battle in the battle game, and conduct the battle. *Id.* at 1:58–67. In accordance with the '308 patent, the procedure for conducting the battle includes the selection of either a first battle mode (manual mode) or a second battle mode (auto mode). *Id.* The patent explains that the second battle mode requires fewer user operations than the first battle mode. *Id.*

Figure 13 of the '308 patent, reproduced below, illustrates these instructions:

FIG. 13

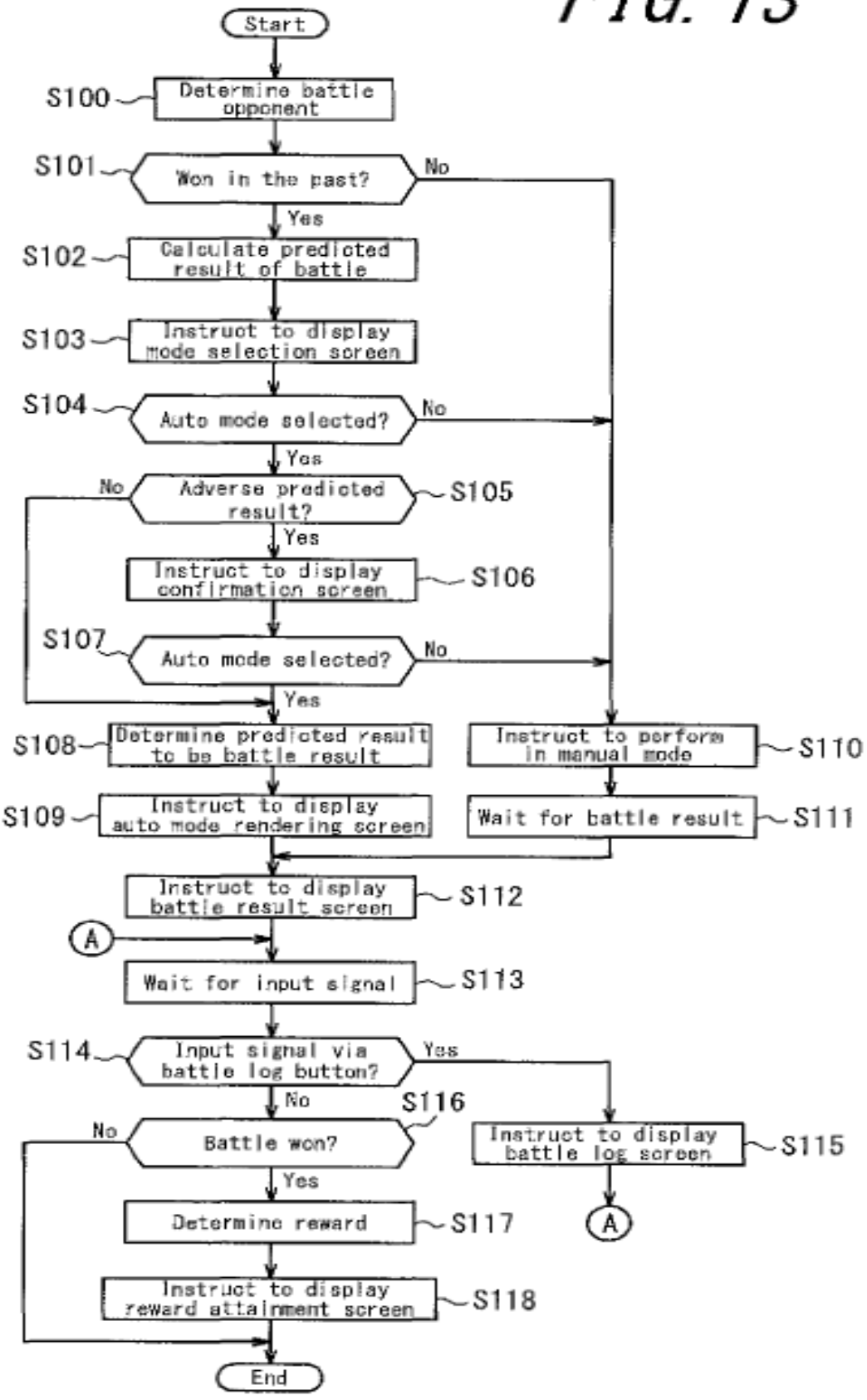
Start
S100
Determine battle opponent
S101
Won in the past?
No
Yes
S102
Calculate predicted result of battle
S103
Instruct to display mode selection screen
S104
Auto mode selected?
No
Yes
No
Adverse predicted result?
S105
Yes
Instruct to display confirmation screen
S106
S107
Auto mode selected?
No
Yes
S108
Determine predicted result to be battle result
Instruct to perform in manual mode
S110
S109
Instruct to display auto mode rendering screen
Wait for battle result
S111
Instruct to display battle result screen
S112
A
Wait for input signal
S113
S114
Input signal via battle log button?
Yes
No
S116
No
Battle won?
Instruct to display battle log screen
S115
Yes
Determine reward
S117
A
Instruct to display reward attainment screen
S118
End

Figure 13 depicts a flowchart illustrating the operations of a game server discussed *supra*. *Id.* at 5:37–39. As depicted in Figure 13, when a player encounters an enemy, the server control unit 15 selects an opponent set for that enemy. *Id.* at 13:49–52. Next, the server determines if the player has ever battled that enemy before, and if so, whether the player won. *Id.* at 13:53–55. If the player has won against the enemy in the past, the server displays a mode selection screen 3, which allows the player to select auto mode. *Id.* at 14:5–12. If the player selects the auto mode, then the battle is conducted in the second mode, which, as discussed *supra*, requires less player input. *Id.* at 34–35. If the player selects manual mode or if the player has not previously won against the selected enemy, then the battle is conducted in the first mode. *Id.* at 14:35–37.

B. Related Matters

The parties state that there are no related matters. Pet. 1; Prelim. Resp. 1.

C. Illustrative Claim

Claims 1–8 are pending and challenged, of which claims 1, 7, and 8 are independent. Claim 1, which is representative, is reproduced below:

> 1. A non-transitory computer readable recording medium having stored thereon instructions to be executed on a computer transmitting a battle game to a communication terminal that is connected to the computer over a network, the instructions causing the computer to perform the steps of:
>
> communicating with the communication terminal over the network;
>
> receiving an input signal from the communication terminal to configure a battle of the battle game, wherein the input signal comprises at least one user operation of a user of the communication terminal;
>
> determining an opponent with whom the user is to battle in the battle of the battle game;

> when the user has not battled with the determined opponent in the past, automatically determining a procedure for executing the battle to be a first mode for executing the battle based on at least one user operation received from the communication terminal;
>
> when the user has battled with the determined opponent in the past, determining, based on at least one user operation received from the communication terminal, the procedure to be one of the first mode and a second mode for executing the battle with fewer user operations received from the communication terminal than in the first mode; and
>
> executing the battle with the determined procedure.

Ex. 1001, 19:52–20:11.

Additional independent claims 7 and 8 recite, respectively, "[a] game server for transmitting a battle game to a communication terminal" and "[a] control method." *Id.* at 21:1–2, 22:1. Each independent claim recites, with some variation, limitations directed to a server for (1) communicating with a communication terminal over a network, (2) receiving battle game configuration input from the communication terminal, (3) determining an opponent for use in the battle game, (4) selecting the battle mode, and (5) executing the battle in accordance with the selected mode.

D. The Alleged Grounds of Unpatentability

The Petition asserts that claims 1–8 of the '308 patent are unpatentable as being directed to non-statutory subject matter under 35 U.S.C. § 101 (Pet. 8–41), lacking adequate written description under 35 U.S.C. § 112(a) (*id.* at 41–50), and being indefinite under 35 U.S.C. § 112(b) (*id.* at 50–54).

E. Eligibility of Patent for Post-Grant Review

The post-grant review provisions of the Leahy-Smith America Invents Act ("AIA")[2] apply only to patents subject to the first inventor to file provisions of the

[2] Pub. L. No. 112-29, 125 Stat. 284 (2011).

AIA. AIA § 6(f)(2)(A). Specifically, the first inventor to file provisions apply to any application for patent, and to any patent issuing thereon, that contains or contained at any time a claim to an invention that has an effective filing date on or after March 16, 2013. AIA § 3(n)(1). Furthermore, "[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); *see also* 37 C.F.R. § 42.202(a) (setting forth the same).

Petitioner asserts that the instant Petition is being filed within nine months of the June 6, 2017, issue date of the '308 patent. Pet. 2. Further, the '308 patent was filed on September 14, 2016, and claims priority to U.S. Patent No. 9,468,849 filed on July 29, 2014. *Id.* at 10; Ex. 1001, (22), (63). Patent Owner does not contest Petitioner's assertions. *See generally* PO Resp.; PO Sur-Reply. We are persuaded that Petitioner has met its burden of showing, by a preponderance of the evidence, that the '308 patent is eligible for post-grant review.

II. ANALYSIS

We turn now to Petitioner's asserted grounds of unpatentability to determine whether Petitioner has met its burden of showing, by a preponderance of the evidence, that claims 1–8 of the '308 patent are unpatentable.

A. Claim Construction

As a step in our analysis for determining whether to institute a review, we determine the meaning of the claims. The instant Petition was filed prior to the effective date of the rule change that replaces the broadest reasonable interpretation ("BRI") standard. *See* Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340 (Oct. 11, 2018) (final rule) ("This rule is effective on November 13, 2018 and applies to all IPR, PGR and CBM petitions filed on or

after the effective date."). We, therefore, apply the BRI standard in this proceeding. Under that standard, in a post-grant review, a claim in an unexpired patent shall be given its broadest reasonable construction in light of the specification of the patent in which it appears. 37 C.F.R. § 42.200(b); *see also Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016). Under the broadest reasonable construction standard, claim terms are generally given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). However, a "claim term will not receive its ordinary meaning if the patentee acted as his own lexicographer and clearly set forth a definition of the disputed claim term in either the specification or prosecution history." *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002).

Patent Owner contends in its Response that "the Petition assumes a narrow construction of the term 'execute.'" PO Resp. 5. Petitioner does not agree, replying that "PO's definition of 'execute' is based on a general-purpose dictionary" rather than a computer dictionary. Pet. Reply 1 (citing Ex. 2004). An express construction of the term "execute," however, is not required for our determination that claims 1–8 of the '308 patent are directed to ineligible subject matter for the reasons discussed below.[3] Accordingly, we see no need for an express claim construction of this term. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) ("[O]nly those terms need be construed that are in controversy, and only to the extent necessary to

[3] Nor is an express construction of the term "execute" necessary for our determination that Petitioner has not shown claims 1–8 lack proper support in the Specification or are indefinite, as discussed below.

resolve the controversy." (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

Patent Owner further contends that "the Petition assumes a strange construction of [the] claim element 'automatically determining a procedure for executing a battle . . . based on at least one user operation received from the communication terminal.'" PO Resp. 8. Specifically, Patent Owner asserts that "the Petition assumes that the earlier recited act of 'automatically determining' in this claim element is modified by the phrase 'based on at least one user operation.'" *Id.* Petitioner does not directly reply to Patent Owner's contentions, focusing instead on the fact that each of the independent claims 1, 7, and 8 recites alternative limitations. Pet. Reply. 2–3. Again, however, the express construction of these limitations is not necessary for our determination that these claims are directed to ineligible subject matter, and we see no need for express claim construction of either the limitation argued by Patent Owner or the pair of limitations argued by Petitioner.[4]

B. Claims 1–8 as Directed to Non-Statutory Subject Matter Under 35 U.S.C. § 101

Petitioner contends that claims 1–8 do not recite patent eligible subject matter under 35 U.S.C. § 101. Pet. 18–41 (citing Exs. 1001–1007). Patent Owner disagrees. PO Resp. 11–33 (citing Exs. 1001, 1004, 2001, 2003). Petitioner replies. Pet. Reply 3–22 (citing Exs. 1001, 1010–1013, 2001–2003). Patent Owner responds further. PO Sur-Reply 3–14 (citing Exs. 1001, 1013, 2001, 2003, 2006).

[4] An express construction of these limitations is not necessary for our determination that Petitioner has not shown claims 1–8 lack proper support in the Specification or are indefinite, as discussed below.

1. Relevant 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. However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: "[l]aws of nature, natural phenomena, and abstract ideas" are not patentable. *E.g.*, *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court's two-step framework, described in *Mayo* and *Alice*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is "directed to." *See Alice*, 573 U.S. at 219 ("On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk."); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) ("Claims 1 and 4 in petitioners' application explain the basic concept of hedging, or protecting against risk.").

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 69 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as "molding rubber products" (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); "tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores" (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. (15 How.) 252, 267–68 (1853))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held that "[a] claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula." *Diehr*, 450 U.S. at 187; *see also id.* at 191 ("We view respondents' claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula."). Having said that, the Supreme Court also indicated that a claim "seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, . . . and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment." *Id.* (citing *Benson* and *Flook*); *see, e.g.*, *id.* at 187 ("It is now commonplace that an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.").

If the claim is "directed to" an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where "we must examine the elements of the claim to determine whether it contains an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." *Alice*, 573 U.S. at 221 (quotation marks omitted). "A claim that recites an abstract idea must include 'additional features' to ensure 'that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].'" *Id.* (quoting *Mayo*, 566 U.S. at 77). "[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention." *Id.*

After the filing of the Petition and Patent Owner's Response, but before the filing of Petitioner's Reply to Patent Owner's Response and Patent Owner's Sur-Reply, the U.S. Patent and Trademark Office published revised guidance on the application of § 101. *2019 Revised Patent Subject Matter Eligibility Guidance*, 84

Fed. Reg. 50 (Jan. 7, 2019) ("Guidance"). Under the Guidance, we first look to whether the claim recites:

> (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes); and
>
> (2) additional elements that integrate the judicial exception into a practical application (*see* Manual of Patent Examining Procedure ("MPEP") § 2106.05(a)–(c), (e)–(h)).

See Guidance, 84 Fed. Reg. at 52–55. Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look to whether the claim:

> (3) adds a specific limitation beyond the judicial exception that is not "well-understood, routine, conventional" in the field (*see* MPEP § 2106.05(d)); or
>
> (4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

See Guidance, 84 Fed. Reg. at 56.

2. Whether Claims Are Directed to an Abstract Idea

a. Petitioner's Assertions in the Petition

Petitioner asserts that "[t]he claims of the '308 patent are directed to the abstract idea of determining a[] procedure for a video game battle." Pet. 26. Specifically, Petitioner argues that "[t]he claims recite a sequence of abstract steps—such as determining an opponent for a battle, determining a procedure for the battle, and executing the battle—and fail to recite any non-abstract way of performing those steps." *Id.* Petitioner also asserts that "the claims of '308 patent do not recite any technical improvements to computers or video game technology. Instead, the claim limitations only recite generalized steps that achieve functional

results, and the claims can cover any system that provides for these results." *Id.* at 29.

In addition, Petitioner cites various Federal Circuit cases in support of its assertion that the claims of the '308 patent are directed to an abstract idea. For example, Petitioner cites *Affinity Labs*, in which claims directed to "the function of wirelessly communicating regional broadcast content to an out-of-region recipient, not a particular way of performing that function" were determined to be directed to an abstract idea, and *Two-Way Media,* in which claims reciting a method for routing information, using "result-based functional language" without "sufficiently describ[ing] how to achieve th[o]se results in a non-abstract way," were determined to be directed to an abstract idea. *See* Pet. 25–31 (citing *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1258–59 (Fed. Cir. 2016); *Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*, 574 F.3d 1329, 1337–38 (Fed. Cir. 2017); *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1351 (Fed. Cir. 2016); *In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 612–13 (Fed. Cir. 2016); *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1348 (Fed. Cir. 2015); *McRO, Inc. Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1315–16 (Fed. Cir. 2016); *Enfish LLC v. Microsoft Corp.*, 822 F.3d 1327, 1330 (Fed. Cir. 2016)). According to Petitioner, claims 1–8 "do not recite any specific *improvement* in video game technology or programming." Pet. 30. Rather, "the only thing the claimed game server needs to do to perform the claimed idea of determining a procedure for a video game battle is to execute commands in response to user inputs, a ubiquitous task that computers have done since their inception." *Id.* at 30–31.

b. Patent Owner's Assertions in Patent Owner's Response

Patent Owner responds that "the claims are not directed to an abstract idea under step one, but rather, they are directed to a specific manner of executing a video game battle in a way that results in an improved system for executing the video game battle." PO Resp. 13. Patent Owner compares the claims of the '308 patent to the claims in *Data Engine Technologies LLC v. Google LLC*, 906 F.3d 999 (Fed. Cir. 2018). *Id.* According to Patent Owner, "[b]y providing a way to eliminate the burdensome manual mode when a user has battled an opponent in the past, this claimed 'second mode' is just like the 'tabs' provided by the claims at issue in *Data Engine Tech.*" *Id.* at 14.

Contending that the Petition impermissibly overgeneralizes the claimed invention, Patent Owner also compares the claims at issue to the claims in *Core Wireless Licensing S.A.R.L., v. LG Electronics, Inc.*, 880 F.3d 1356 (Fed. Cir. 2018). *See* Prelim. Resp. 16–17. Again referencing the claimed "second mode," Patent Owner asserts that the claims recite "a specific improvement over prior systems resulting in an improved battle game system and [are] directed to an improvement in the functioning of computers." *Id.* at 17. In addition, Patent Owner asserts that "in the *Alice* analysis, it is not necessary for the technological benefit to be expressly recited in the claims—it is both appropriate and common for the court to look to the specification to determine how a particular claim limitation achieves the technological benefit disclosed in the specification." *Id.* (citing generally *McRO*; *Amdocs (Isr.), Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1307 (Fed. Cir. 2016)).

Then Patent Owner compares the claims at issue in *Enfish*, *McRO*, *Affinity Labs*, and *Two-Way Media* to claims 1–8 again. Prelim Resp. 19–24. We have fully considered Patent Owner's arguments; however, in the interest of brevity and

as these cases are well known to those familiar with current case law regarding 35 U.S.C. § 101, we do not reiterate Patent Owner's arguments regarding these cases.

c. Petitioner's Assertions in Petitioner's Reply to Patent Owner's Response

Petitioner disagrees with Patent Owner's characterization of the claims. Pet. Reply 4. We note that, although Petitioner refers to the Guidance in its Reply, Petitioner does not explicitly apply step 2A prong 1 of the Guidance (i.e., Petitioner does not expressly identify a particular "grouping" of abstract ideas, to which the claims either recite or are directed to, as being one of mathematical concepts, certain methods of organizing human activity, or mental processes). *Id.* at 4–8; Guidance at 51–52. Nonetheless, Petitioner does explain what the claims are directed to, and why they are an abstract idea. As it did in the Petition, Petitioner explains that the claims are directed to "determining a procedure for a video game battle based on user input," and asserts that such a characterization is an abstract idea. Pet. Reply 4. Petitioner then asserts that '"executing' the battle game — PO's articulation of what the claim is directed to — only corresponds to the final limitation. If the singular executing limitation is removed from the claim, the claim still makes sense, and thus makes an unlikely candidate for what the claim is 'directed to.'" *Id.* Petitioner contrasts Patent Owner's assertion with its own characterization that "the claim is directed to . . . 'determining a procedure for a video game battle based on user input' [which] corresponds to *at least* . . . the two 'determining a/the procedure' steps." *Id.* Petitioner further notes that "[w]hen PO's expert was asked whether it was fair to characterize the claims as being about determining which procedure to use, he answered in the affirmative," and "when

asked whether it would be fair to characterize the claim as being about executing a battle, he said that it would not." *Id.* at 5 (citing Ex. 1010, 183:2–23).

In addition, Petitioner replies to Patent Owner's Response by quoting the portion of our Initial Decision where we stated that '"the claims employ results-based functional language without reciting sufficiently specific means or technology for achieving those functional results,' *e.g.*, because the claims do 'not indicate *how* such steps are performed.'" Pet. Reply 6 (quoting Dec. 13). In response to Patent Owner's allegation that the claimed second mode is a specific structure analogous to "the type of structure found to be a specific technological solution in *Data Engine*," Petitioner contends the second mode is not a structure, but a procedure. *Id.* at 7.

Then, Petitioner explicitly discusses whether the claims integrate the alleged abstract idea into a practical application (Guidance step 2A prong 2). Pet. Reply. 8–12. Specifically, Petitioner responds to Patent Owner's assertion that the claims at issue are similar to the claims in *Enfish* and *McRO*. *Id.* at 8–11. Petitioner attempts to distinguish claims 1–8 from the claims in *Enfish* and *McRO*, arguing that they "recite no technical improvements to computers or video game technology. Instead, they recite generalized steps that achieve functional results and encompass any system that provides for these results." *Id.* at 11. Petitioner also argues that as "the second mode of the fifth limitation *is not required* for performance of the claim . . . in instances in which the determined processing mode is the first mode, there is no processing via the second mode, and the alleged savings in processing load is not available." *Id.* at 12 (citing Ex. 1010, 163:21–164:23).

Finally, Petitioner explicitly addresses Guidance step 2B, arguing that claims 1–8 contain no inventive concept. Pet. Reply. 12. Noting that "[p]art two of the

Alice analysis considers whether elements *additional to* what a claim is 'directed to . . . 'transform the nature of the claim' into a patent-eligible application," Petitioner asserts that "the additional elements beyond [the alleged abstract] idea are . . . 'communicating with the communication terminal over the network' and 'receiving an input signal from the communication terminal,' and generic computer equipment or functionally-named components.'" *Id.* at 13. According to Petitioner, these elements do not transform the nature of the claims because "[t]he claims recite only generic, well-known computer or network equipment or functionally named components operating within the hardware: 'a computer,' 'network,' and 'a communication terminal'" and "do not require limitations that appear directed to the purported inventive concept described in the specification." *Id.* at 14–15 (citing Ex. 1001, 19:52–20:12).

Petitioner further argues that "the fifth claim limitation, which is the only limitation that potentially corresponds to the purported advance of the specification, is recited *in the alternative*, and thus is not *required*." Pet. Reply 16. Moreover, according to Petitioner, "[e]ven if the 'when the . . . user has battled with the determined opponent in the past…' (fifth) limitation could be considered an element *additional to* what the claim is 'directed to,' it is well understood, routine, and conventional." *Id.*

Petitioner concludes its arguments regarding subject matter eligibility by asserting that "[n]one of the dependent claims adds any features that transform the basic abstract idea into a patent-eligible invention." Pet. Reply 19.

d. Patent Owner's Assertions in Patent Owner's Sur-Reply

Patent Owner answers that the claims are not directed to any of the abstract ideas enumerated under the Guidance. PO Sur-Reply 3–11. Specifically, Patent Owner asserts that "[c]laims 1–8 clearly do not recite any mathematical concepts or enumerated methods of organizing human activity," and that these claims "do not recite mental processes for at least the same reasons as claim 2 in USPTO Example 37." *Id.* at 4–5 (citing Ex. 2006 1–4). In support of these assertions Patent Owner contends that independent claims 1, 7, and 8 — like claim 2 in Example 37 — "recite computer functions that are not practically performed in the human mind." *Id.* at 5. Patent Owner identifies these claimed functions as the input receiving steps (claims 1 and 8, and the similar limitation in claim 7) and the determining steps (also claims 1 and 8, with a similar limitation in claim 7). *Id.* Patent Owner further asserts that claims 4–6 also "recite computer functions that are not practically performed in the human mind." *Id.* According to Patent Owner, these functions include "in the second mode, suspending the display of the image at the communication terminal that is configured to receive at least one user operation for causing a player character to perform a command." *Id.*

Turning to prong 2, Patent Owner further answers that even if claims 1–8 are not eligible under prong 1, they recite "a practical application under prong 2" for three reasons. PO Sur-Reply 6. First, Patent Owner compares the '308 patent claims to claim 1 of Example 37:

> Independent claims 1, 7, and 8 at least recited the functions/steps of (a) receiving . . . input signals including at least one user operation[,] (b) when the user has not battled with the determined opponent in the past, automatically determining a procedure for executing the battle to be a first more for executing the battle based on at least one user operation received from the communication terminal, (c) when the user has battled with the determined opponent in the past, determining,

> based on at least one user operation received from the communication terminal, the procedure to be one of the first mode and a second mode for executing the battle with fewer user operations received from the communication terminal than in the first mode.

Id. at 7. Patent Owner also argues that "dependent claims 4 and 6 recite, in the second mode, suspending the display of the image at the communication terminal that is configured to receive at least one user operation for causing a player character to perform a command." *Id.* According to Patent Owner, "[t]hese operations improve the system and the technological field." *Id.*

Second, Patent Owner asserts that "the claims are directed to a practical application under the revised guidance because they provide an improvement to the computer and an improvement to the technological field." PO Sur-Reply 8. According to Patent Owner

> providing the option of the second mode reduces the time of conducting the battle and reduces the processing load on the system because the system (i) has to act on fewer user inputs when conducting the battle, and (ii) avoids the complex rendering of the manual mode battle screen when conducting the battle.

Id. (citing Ex. 1001, 1:21–49, 11:63–67, 17:16–23; Ex. 2001 ¶ 24). According to Patent Owner, "offering the user an option that will . . . necessarily be less of a draw on system resources only in an instance where it will improve game play . . . is a particular way to achieve these benefits." *Id.*

Third, Patent Owner alleges that "elements of the claims apply or use the alleged abstract idea in some other meaningful way beyond generally linking its use to a particular technological environment, such that the claims as a whole are more than a drafting effort designed to monopolize the exception." PO Sur-Reply 8–9. According to Patent Owner, "claims 1, 7, and 8 include elements that specifically limit how the second mode works." *Id.* at 9. As an example, Patent Owner asserts that the "second mode is only available when it has been determined

that the user has battled with the opponent in the past" which "prevents the claim from covering any game having a second mode with fewer user inputs than a fi[r]st mode." *Id.* Patent Owner also argues that "claims 4 and 6 also apply or use the alleged abstract idea in some other meaningful way beyond generally linking its use to a particular technological environment." *Id.* For these claims, Patent Owner identifies "in the second mode, displaying of the image at the communication terminal that is configured to receive at least one user operation for causing a player character to perform a command" as such a use. *Id.*

e. Application of the Guidance

As discussed above in Part II.B.1, the Guidance issued after filing of the Petition and Patent Owner's Response, but before filing of Petitioner's Reply and Patent Owner's Sur-Reply. In its Reply, Petitioner mentions the Guidance, but does not provide any explicit analysis in the specific manner outlined under step 2A prong 1 of the Guidance. Pet. Reply 4–8. Nevertheless, Petitioner explained what the claims are directed to and why that is an abstract idea in a manner sufficient for Patent Owner to respond. *Id.* Indeed, we see that Patent Owner was readily able to address Petitioner's assertions within the framework of step 2A prong 1 of the Guidance in their Sur-Reply, in asserting that the claims are not directed to any of the groupings of abstract ideas. PO Sur-Reply 4–5. Petitioner then responded to those arguments concerning step 2A, prong 1 at oral argument. Tr. 17.

Furthermore, Patent Owner explicitly asserts in its Sur-Reply that the Guidance should be applied. PO Sur-Reply 3. And Patent Owner had a chance to respond to Petitioner at oral argument. Accordingly, not only does Patent Owner explicitly assert that the Guidance should be applied, it has had ample opportunity to address the Guidance. Under those circumstances,

we see no prejudice in acceding to Patent Owner's request that the Guidance be applied.

f. Whether "Determining a Procedure for a Video Game Battle" Is an Abstract Idea

As representative claim 1 is reproduced above, we do not reproduce it in its entirety here. Instead, we reproduced the limitations which are allegedly drawn to "determining a[] procedure for a video game battle," as asserted by Petitioner. We discern that these limitations are:

> determining an opponent with whom the user is to battle in the battle of the battle game;
>
> when the user has not battled with the determined opponent in the past, automatically determining a procedure for executing the battle to be a first mode for executing the battle based on at least one user operation received . . . ; [and]
>
> when the user has battled with the determined opponent in the past, determining, based on at least one user operation received . . ., the procedure to be one of the first mode and a second mode for executing the battle with fewer user operations received . . . than in the first mode.

Ex. 1001, 19:64–20:10. We alternatively refer collectively to these limitations as the "determining steps."

i. Mental Processes

We address first Petitioner's original assertion that "[t]he claims of the '308 patent are directed to the abstract idea of determining a[] procedure for a video game battle."[5] Pet. 26. Under the Guidance, abstract ideas include "mathematical

[5] In our Institution Decision, we characterized the abstract idea as "a procedure for determining how a battle in a video game will proceed based on user input." Dec. 12. We now consider Petitioner's characterization, as the only differences between our prior characterization and Petitioner's is our omission of the word "video" and inclusion of "user input" in the statement of the abstract idea. As neither of these

concepts, certain methods of organizing human activity [such as a fundamental economic practice], and mental processes." 84 Fed. Reg. at 51. Applying the Guidance, for the reasons set forth below, we agree with Petitioner that "determining a[] procedure for a video game battle" is an abstract idea because it is a mental process. Tr. 17.

Patent Owner disagrees. According to Patent Owner, "the Petition and Decision instituting this PGR improperly overgeneralize the claims to conclude that the claims are directed to an abstract idea." PO Resp. 13. Patent Owner contends further that "[c]laims 1–8 do not recite mental processes for at least the same reasons as claim 2 in USPTO Example 37." PO Sur-Reply 4–5 (citing Ex. 2006, 1–4). Specifically, Patent Owner asserts that

> Independent claims 1, 7, and 8 perform computer functions that are not practically performed in the human mind, including:
>
> > . . . receiving an input signal from the communication terminal . . . automatically determining a procedure for executing the battle to be a first mode . . . determining, based on at least one user operation received from the communication terminal, the procedure to be one of the first mode and a second mode for executing the battle with fewer user operations received from the communication terminal than in the first mode . . . .

PO Sur-Reply 5. Turning to the dependent claims, Patent Owner asserts that "claims 4–6 recite computer functions that are not practically performed in the human mind, including, in the second mode, suspending the display of the image at the communication terminal." *Id.*

Patent Owner's assertions are misplaced, because not every limitation of the claims needs to be accounted for in either "determining a procedure for a video

differences impact the outcome of our decision, we defer to Petitioner's characterization.

game battle," or as being an abstract idea. Some limitations are either (1) part of the focus of the claim, and should be accounted for in how the overall claim is characterized, or (2) recitations of the abstract idea itself. The limitations other than those are certainly considered, but are considered as additional elements, which are addressed elsewhere in the subject matter eligibility inquiry. *Enfish*, 822 F.3d at 1335–36 ("[T]he first step in the *Alice* inquiry in this case asks whether the focus of the claims is on . . . ."); *Elec. Power Grp.*, 830 F.3d at 1353 ("[W]e have described the first-stage inquiry as looking at the 'focus' of the claims, their 'character as a whole.'"); 84 Fed. Reg. at 55 n.24 ("USPTO guidance uses the term 'additional elements' to refer to claim features, limitations, and/or steps that are recited in the claim beyond the identified judicial exception."); *BSG Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018) (after formulating the concept the claims are "directed to," the inquiry under *Alice* step two is to determine whether claim limitations other than the steps for executing the formulated concept are "well-understood, routine, and conventional").

Returning to Petitioner's characterization of the claims, we hold that "determining a[] procedure for a video game battle" is a mental process because it involves "concepts performed in the human mind (including observation, evaluation, judgement, opinion)." 84 Fed. Reg. at 52 (footnote omitted). We agree with Petitioner that claims 1–8 of the '308 patent are similar to Claims 1 and 3 of Example 37 in the Guidance. *See* Tr. 17–19. Further, we agree with Petitioner's reasoning that "a human could determine the procedure based on whether the opponent was battled before and/or based on user selection." *Id.* at 21. As Petitioner states, "a human could do that. I could figure out, have we battled this person before, and if so, you know, would you like to battle them again or would

you like to, you know, sort of have it done more automatically? That's something a human mind could do." *Id.*

An analysis of the individual limitations of the "determining steps" further supports our determination. For example, independent claim 1 recites "determining an opponent with whom the user is to battle in the battle of the battle game," which is no more than making an evaluation, opinion, or judgment as to the next battle component. There is nothing in the limitation that could not be practically performed in the human mind. The next limitation is "when the user has not battled with the determined opponent in the past, automatically determining a procedure for executing the battle to be a first mode for executing the battle based on at least one user operation received from the communication terminal." The first clause is a person making an evaluation, opinion, or judgment that a user has not battled a particular opponent, which, again, is something that can be practically performed in the human mind. The second clause is arguably something performed on a computer. But the Guidance instructs us that "[i]f a claim, under its broadest reasonable interpretation, covers performance in the mind but for the recitation of generic computer components, then it is still in the mental processes category unless the claim cannot practically be performed in the mind." 84 Fed. Reg. at 52 n.14. Thus, we do not need to consider the "automatically" and "communication terminal" limitations further at this point in the analysis. What we are then left with are two clauses. The earlier clause is "determining a procedure for executing the battle to be a first mode for executing the battle." Although "a procedure for executing the battle" may seem potentially complicated at first glance, the claim further recites that the only determination that needs to be made is "to be a first mode for executing the battle." That is a binary judgment that can be practically performed in the human mind. Which brings us to the latter

clause of "based on at least one user operation received." Even when considered in conjunction with "communications terminal," the claim does not provide any details as to the type of user operation received. That indicates that the limitation could be just a human observing a user operation. Our analysis is the same for "when the user has battled with the determined opponent in the past, determining, based on at least one user operation received from the communication terminal, the procedure to be one of the first mode and a second mode for executing the battle with fewer user operations received from the communication terminal than in the first mode." Accordingly, for all of the above reasons, we hold that "determining a procedure for a video game battle" under its broadest reasonable interpretation covers practical performance of these limitations in the human mind, but for the recitation of a generic computer.

Our determination is also based on a comparison of claims 1–8 of the '308 patent and the claims at issue in the Supreme Court and Federal Circuit cases cited at footnote 15 of the Guidance. For example, the claims at issue in *Intellectual Ventures* recited the step of "determining, on the processing system, whether each received content identifier matches a characteristic of other identifiers," which is similar to the determining steps at issue here. *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1313 (Fed. Cir. 2016). The determining steps are also similar to the claims at issue in *Mortgage Grader* and *Versata*. *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d. 1314, 1324 (Fed. Cir. 2016) (holding that computer-implemented method for "anonymous loan shopping" was an abstract idea because it could be "performed by humans without a computer"); *Versata Dev. Grp. v. SAP Am., Inc.*, 793 F.3d 1306, 1335 (Fed. Cir. 2015) ("Courts have examined claims that required the use of a computer and still

found that the underlying, patent-ineligible invention could be performed via pen and paper or in a person's mind.").

Patent Owner argues that the claims at issue "do not recite mental processes for at least the same reasons as claim 2 in USPTO Example 37." PO Resp. 4 (citing Ex. 2006, 1–4). According to Patent Owner, claim 2 in Example 37 is not directed to a mental process because it recites computer functions that are not practically performed in the human mind. *Id.* a 5. Patent Owner asserts that the determining steps, similarly, cannot be performed in the human mind. *Id.* We disagree. Like Petitioner, we consider a user to be readily able to determine mentally if they have battled a particular game opponent before. *See* Tr. 21. We also consider a user to be readily capable of determining mentally whether to use a first longer mode or a second shorter mode in the instance where the user has battled the game opponent before. In fact, as noted above, the computer makes its mode determination based on user input. Thus, it is the user, not the computer, that selects the battle mode.

For these reasons, we determine that claims 1–8 are drawn to mental processes, which are abstract ideas.

ii. Certain Methods of Organizing Human Activity

Next, we consider whether "determining a procedure for a video game battle" is one of the certain methods of organizing human activities that are identified in the Guidance as being abstract. 84 Fed. Reg. at 52. Although Petitioner did not raise this issue until the oral argument, Patent Owner considered this question in its Sur-Reply. Tr. 20; PO Sur-Reply 4. Further, as noted at the beginning of this section, Patent Owner asserts that the Guidance should be applied in this proceeding. PO Sur-Reply 3. Accordingly, we see no prejudice to Patent Owner in our application of the Guidance to the claims at issue.

As indicated above, the Guidance explicitly cites *In re Smith* as an example of claims reciting one of certain methods of organizing human activity, and characterizes *In re Smith* as follows: "*In re Smith*, 815 F.3d 816, 818 (Fed. Cir. 2016) (concluding that '[a]pplicants' claims, directed to rules for conducting a wagering game' are abstract)." 84 Fed. Reg. at 52 n.14. At oral argument, Petitioner contended that the claims at issue "possibly also could fall under certain methods of organizing human activity, as I'm sure you recall from other cases. This is a gaming case. Some of this is just about the rules corresponding to how to play this game." Tr. 20.

In its Sur-Reply, Patent Owner asserts that "[c]laims 1–8 clearly do not recite any . . . enumerated methods of organizing human activity." PO Sur-Reply 4. At the oral argument, Patent Owner clarified its position. According to Patent Owner, "it's important to distinguish the rules of playing a game from the functions of the software in running the games." Tr. 44. Patent Owner explains that "[h]ow the software decides what to display on the screen is not really a rule of a game . . . that's not human activity." *Id.* at 44–45.

We do not agree that such a distinction between the rules of a game and the software that implements those rules can be made for claims such as the claims at issue in this proceeding. Here, it is the claimed determining steps that govern the rules of the game. Specifically, if the user has not battled the opponent before, then the game will proceed in accordance with the first mode. Ex. 1001, 19:66–20:1. Alternatively, if the user has battled the opponent before, then the game will proceed in either the first or second mode based on user input. *Id.* at 20:4–8. As for the claims that include displaying steps (claims 2–6), those steps are not part of the alleged judicial exception. We consider those display limitations to be

"additional elements" in accordance with the Guidance, which are discussed further below in Parts II.B.2.g and II.B.2.h.

For these reasons, we determine that claims 1–8 are drawn to rules of playing a game, which are a certain method of organizing human activity that has been found to be abstract.

iii. Mathematical Concepts

Patent Owner submits that "[c]laims 1–8 clearly do not recite any mathematical concepts." PO Resp. 4. Petitioner presents no arguments that the claims at issue are directed to mathematical concepts. *See generally* Tr. We agree with Patent Owner that claims 1–8 do not recite mathematical relationships, mathematical formulas or equations, or mathematical calculations. Accordingly, we determine that claims 1–8 are not drawn to mathematical concepts.

g. Whether the Abstract Idea Is Integrated into a Practical Application

Having determined that the claims recite an abstract idea, we "evaluate whether the claims as a whole integrate[] the recited judicial exception into a practical application of the exception." Guidance, 84 Fed. Reg. at 54. Under the Guidance, we "evaluate integration into a practical application by: (a) Identifying whether there are any additional elements recited in the claim[s] beyond the judicial exceptions(s); and (b) evaluating those additional elements individually and in combination to determine whether they integrate the exception into a practical application." *Id.* at 54–55.

As an initial matter, we identify the following recitations in representative claim 1 as directed to additional elements:

> A non-transitory computer readable recording medium having stored thereon instructions to be executed on a computer transmitting a battle game to a communication terminal that is connected to the computer

> over a network, the instructions causing the computer to perform the steps of:
>
> communicating with the communication terminal over the network;
>
> receiving an input signal from the communication terminal to configure a battle of the battle game, wherein the input signal comprises at least one user operation of a user of the communication terminal;
>
> . . . ; and
>
> executing the battle with the determined procedure.

Ex. 1001, 19:52–20:11. From these recitations, we determine that the additional elements are computer components and software, and the steps of communicating with a communication terminal, receiving an input signal, and executing the battle. Independent claims 7 and 8 recite similar limitations including similar additional elements. We note that Petitioner provides a similar identification of the additional elements. Pet. Reply 13. As discussed above in Part II.B.2.h, dependent claims 2–6 include additional displaying step elements, as well as other computer instructions, which constitute additional elements not encompassed by the judicial exception.

As noted above in part II.B.2.e, Petitioner addresses whether claims 1–8[6] integrate the judicial exceptions into a practical application in its Reply. Pet. Reply 8–12. Specifically, Petitioner asserts that "the '308 patent claims only results—determining an opponent, determining a procedure, and executing a battle—without specifying any 'process or machinery' by which those results would be

[6] We note that Petitioner only addresses the dependent claims by arguing that "[n]one of the dependent claims adds any features that transform the basic abstract idea into a patent-eligible invention" and to point out that "POR does not separately argue the patent eligibility of any of the dependent claims." Pet. Reply 19. Accordingly, we understand Petitioner's arguments discussed below to pertain to all of the claims at issue (i.e., claims 1–8).

achieved." Pet. Reply 11 (citing *McRO*, 837 F.3d at 1314). Petitioner asserts further that, unlike the claims in *McRO* and *Enfish*, "[t]he '308 claims recite no technical improvements to computers or video game technology. Instead, they recite generalized steps that achieve functional results, and encompass any system that provides for these results." *Id.* In other words, Petitioner is effectively asserting that the additional elements do no more than "merely include[] instructions to implement an abstract idea on a computer, or merely use[] a computer as a tool to perform an abstract idea." 84 Fed. Reg. at 55.[7]

In addition, Petitioner asserts that "the claims do not recite limitations that require reduced processing load. PO's expert agreed that if you do not use the second mode, 'then you have no benefit from the technological improvement of having a second mode.'" Pet. Reply 11 (citing Ex. 1010, 48:4–17). Given this fact, Petitioner concludes that "claims 1-8 of the '308 patent do not transform the abstract idea into patent-eligible subject matter because the claim elements *additional to* what a claim is 'directed to' do not integrate the judicial exception into a *practical application*." *Id.* at 12. Petitioner further asserts that "[t]hey also do not improve the technological field, but rather, improve game play for the user." *Id.*

During oral argument, Petitioner further explained its position. Tr. 21–27. In particular, when questioned about alleged improvements in computer operation, Petitioner asserted that it is unclear what is meant by fewer operations in the context of the second mode. *Id.* at 24. According to Petitioner, "there isn't a way

[7] Indeed, we note that Petitioner advanced similar arguments in its Petition, although admittedly not in the parlance of the "practical application" inquiry. *See* Pet. 29–31, 40–41 ("[C]laims of '308 patent do not recite any technical improvements to computers or video game technology.").

to know how many fewer steps would be performed." *Id.* at 26. Petitioner contends that if only one fewer operation is required, that would be insufficient to integrate the abstract idea into a practical application. *See id.* at 27.

In addition, Petitioner asserts that Patent Owner relies on the limitations encompassed by the judicial exception as the additional elements that integrate the judicial exception into a practical application. *See* Tr. 22 ("Patent Owner relies on these same two determining elements, and actually, primarily, on that last one, . . . There's not a consideration of the other elements and whether they would help under Prong 2 or under Step 2B. It's always back to the same determining steps.").

Patent Owner disagrees, effectively asserting that the additional elements "integrate[] the recited judicial exception into a practical application." 84 Fed. Reg. at 54. Specifically, Patent Owner contends that the claims "are directed to a specific manner of executing a video game battle in a way that results in an improved system for executing the video game battle." PO Resp. 13. In support of this contention, Patent Owner compares the claims to the claims of *Data Engine Technologies*, *Core Wireless*, *Enfish*, and *McRO*. *Id.* at 13–23. Patent Owner also distinguishes claims 1–8 from the claims in *Affinity Labs* and *Two–Way Media*. *Id.* at 23–24. For example, Patent Owner asserts:

> By providing a way to eliminate the burdensome manual mode when a user has battled an opponent in the past, this claimed "second mode" is just like the "tabs" provided by the claims at issue in *Data Engine Tech.*, which provided a way to eliminate the "burdensome task of navigating through spreadsheets in separate windows using arbitrary commands."

Id. at 14 (citing *Data Engine Techs.*, 906 F.3d at 1011). Patent Owner asserts further that "like the claims in *Core Wireless*, [t]he claimed second mode result[s] in an improvement in the functioning of computers," "[l]ike the claims of *Enfish*, the claims of the 308 Patent are not doomed under the . . . *Alice* analysis merely because they run on a general-purpose computer," and "[l]ike the claims at issue in

McRO, the claims of the 308 Patent recite specific characteristics of the claimed 'second mode.'" *Id.* at 18, 20–21.

Turning to dependent claims 4 and 6, Patent Owner contends that these claims "apply or use the alleged abstract idea in some other meaningful way beyond generally linking its use to a particular technological environment, such that the claims as a whole are more than a drafting effort designed to monopolize the exception." PO Sur-Reply 9. In support of this contention, Patent Owner argues that "in the second mode, the displaying of the image at the communication terminal that is configured to receive at least one user operation for causing a player character to perform a command is suspended." *Id.*

We are persuaded that Petitioner is correct. The '308 patent indicates that it concerns "improving the user's experience" by making "user operation . . . less troublesome during a battle in auto mode." Ex. 1001, 17:18–23.[8] In other words, the claims at issue are merely directed to the procedure for executing a video battle game. Specifically, we agree with Petitioner that, as currently claimed, '"the second mode' is not a structure at all, much less the type of structure found to be a specific technological solution in *Data Engine*." Pet. Reply. 7. The improvements encompassed by the "second mode" are likewise not similar to the small-screen interfaces claimed in *Core Wireless*. Although the '308 patent briefly mentions alleged improvements to the computer system, such as a smaller processing load when the battle is rendered in the second mode (*id.* at 11:63–67), we determine that to the extent such improvements exist they are ancillary to the claimed procedure

[8] We note that this portion of the Specification was cited by Patent Owner in its Preliminary Response as support for its arguments that the claims are directed to an improvement in the system for executing a video battle game. *See, e.g.* Prelim. Resp. 3.

recited in its current form: at a high level of generality without any limitations specific to improvements to computers. We are persuaded further by the testimony of Patent Owner's expert, Michael Zyda, on this issue. Ex. 1010, 98–106. When questioned by Petitioner regarding whether or not a second mode that only has one fewer user operation than a first mode would, by itself, constitute a technological improvement (in other words a practical application), Patent Owner's expert said it would not. *Id.* at 106; *see also* Pet. Reply 17.

We are also persuaded that Petitioner is correct because Patent Owner relies on the judicial exception itself as the mechanism for integration of the judicial exception into a practical application for all of the claims at issue. *See, e.g.*, PO Sur-Reply 7–8 ("It is the combination of offering the second mode only under specific . . . circumstances . . . and the fact that the second mode will always require fewer user operations that result in the improvement to the system and the technological field.") (internal citations omitted), 19. Mr. Zyda's testimony highlights this reasoning. Specifically, in his Declaration, Mr. Zyda states that

> the technological improvement is "the feature of, 'when the user has battled with the determined opponent in the past, determining, based on at least one user operation received from the communication terminal, the procedure to be one of the first mode and a second mode for executing the battle with fewer user operations received from the communication terminal than in the first mode," recited in claims 1, 7, and 8 of the 308 Patent.

Ex. 2001 ¶ 21. Throughout his testimony, in his declaration and during his deposition, Mr. Zyda refers to these limitations as "the claimed 'second mode'" and reiterates that the "second mode" constitutes the technological improvement. *See generally* Exs. 2001, 1010. However, the claimed "second mode" cannot by itself integrate the claims into a practical application of the judicial exception, because the "second mode" is part of the judicial exception. Indeed, even when we

consider the "second mode" limitations in conjunction with the recited computer components, the claim is devoid of details as to how such a "second mode" is implemented. Without such details, the limitation "merely includes instructions to implement an abstract idea on a computer, or merely uses a computer as a tool to perform an abstract idea." 84 Fed. Reg. at 55. Under the Guidance, that is insufficient to constitute a practical application.

For these reasons, we determine that claims 1–8 do not integrate the judicial exceptions into a practical application.

h. Whether Claims 1–8 Provide An Inventive Concept

We conclude our analysis by considering whether the claim provides an inventive concept. 84 Fed. Reg. at 56. Petitioner asserts that "[a]ll the recited claim elements of the '308 claims, tangible and otherwise, are conventional, generic and well understood, and thus present no patentable inventive concept." Pet. 35. According to Petitioner, "[t]he claims of the '308 patent recite generic or functionally named computer equipment and components, such as 'computer,' 'communication terminal,' 'game server,' 'communication interface,' and 'processor.'" *Id.* (citing Ex. 1001, 19:52–20:11, 21:1–25). Petitioner explains that "[t]hese are the fundamental tools of a computer, which perform routine functions, and are therefore non-inventive for purposes of step two of *Alice*." *Id.* at 35–36 (citing *In re TLI Commc'ns*, 823 F.3d at 615 (affirming invalidity of claims utilizing computer components that "behave exactly as expected according to their ordinary use"); *Mortg. Grader*, 811 F.3d at 1324) ("No . . . inventive concept is present here. Instead, the claims 'add' only generic computer components such as an 'interface,' 'network,' and 'database.' These generic computer components do not satisfy the inventive concept requirement."); *Vehicle Intelligence & Safety, LLC v. Mercedes-Benz USA, LLC*, 635 F. App'x 914, 915 (Fed. Cir. 2015)

(holding that a claimed "processor" was simply a "purely conventional computer implementation" of claimed function)); *see also* Pet. Reply 13–14.

Patent Owner disagrees, responding that "the Petition fails to provide sufficient factual evidence showing that providing 'a second mode for executing the battle with fewer user operations received from the communication terminal than in the first mode' was well-understood, routine, and conventional at the time of the invention." PO Resp. 26 (citing Exhibit 2001 ¶¶ 28–34). Patent Owner further contends that "[l]ike the claims in *BASCOM*, the hardware recited in the claims of the 308 Patent is arguably conventional. However, this hardware does not simply implement the abstract idea of determining a procedure of a video game." *Id.* at 32 (citing *BASCOM Global Internet Sercs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016)). According to Patent Owner, "like the claims in *BASCOM*, the recited hardware implements a specific function that improves the technological field." *Id.*

We are persuaded that Petitioner is correct because, once again, Patent Owner relies on the limitations that are encompassed by the judicial exception for the inventive concept. Our analysis under step 2B, like our analysis above under step 2A prong 2, looks to the additional elements beyond the judicial exception. Patent Owner identifies no additional elements beyond the judicial exception as providing an inventive concept and does not argue that the additional elements beyond that judicial exception are not well-known, routine, and conventional. And for the limitations identified expressly by Petitioner as "additional elements," we are persuaded that Petitioner provides adequate factual support in the form of citations to the '308 patent itself, as well as legal support under *Alice*.

For these reasons, we determine that claims 1–8 do not provide an inventive concept beyond the abstract idea.

i. Conclusion re Subject Matter Eligibility

For the reasons set forth in Parts II.B.2.f–h, we are persuaded that Petitioner has met its burden of showing that dependent claims 1–8 are not subject matter eligible.

C. Claims 1–8 as Unpatentable Under 35 U.S.C. § 112(a)

Petitioner contends that claims 1–8 are unpatentable for lacking written description support under 35 U.S.C. § 112(a). Pet. 41–50 (citing Ex. 1001); Pet. Reply 21–23. Patent Owner disagrees. PO Resp. 35–41; PO Sur-Reply 12–14. Petitioner challenges three different limitations. After discussing the principles of law, we address each of these limitations in turn.

1. Principles of Law

To satisfy the written description requirement under 35 U.S.C. § 112(a), the specification must sufficiently describe an invention understandable to a person of ordinary skill in the art and "show that the inventor actually invented the invention claimed." *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). In other words, a patent applicant must "convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention. The invention is, for purposes of the 'written description' inquiry, whatever is now claimed." *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563–64 (Fed. Cir. 1991). "Such description need not recite the claimed invention *in haec verba* but must do more than merely disclose that which would render the claimed invention obvious." *ICU Med., Inc. v. Alaris Med. Sys., Inc.*, 558 F.3d 1368, 1377 (Fed. Cir. 2009).

2. Analysis

i. First Set of Contested Recitations

First, Petitioner asserts that the Specification fails to provide support for:

> 1. A non-transitory computer readable recording medium having stored thereon instructions *to be executed on a computer transmitting a battle game to a communication terminal* that is connected to the computer over a network, the instructions causing the computer to perform the steps of:
>
> . . . executing the battle with the determined procedure.

Pet. 43. According to Petitioner, "the specification provides support for the 'executing' step only if it discloses that this step can be performed on the game server," but it "never discloses that the 'executing' step can be performed on the game server." *Id.* Specifically, Petitioner asserts that "the specification only describes 'execut[ing] a battle process' *on the communication terminal*." *Id.* at 43–44 (citing Ex. 1001, 16:14).

Patent Owner disagrees, responding that Petitioner's argument is based on an improper construction of the term "execute." PO Resp. 35–36. Alternatively, Patent Owner responds that "[e]ven when 'execute' is given the meaning 'carry out,' the 308 Patent also describes an alternative showing that Patent Owner was in possession of the invention reciting 'executing the battle with the determined procedure.'" *Id.* at 36. In support, Patent Owner quotes the relevant portion of the Specification which states:

> Yet another example is that the above-described processes performed by the game server 1 or the communication terminal 2 may be performed in cooperation by the game server 1 and the communication terminal 2. For example, for a process to cause the communication terminal 2 to display a game screen, one possible configuration is for a portion of the screen (such as the portion displaying an image in accordance with game progress) to be a web display that is displayed based on data generated by the game server 1,

> and another portion (such as the portion displaying a menu or other fixed input interface) to be a native display via a native application installed on the communication terminal 2.

Id. at 37 (quoting Ex. 1001, 18:51–63). According to Patent Owner, "[f]rom this disclosure, however, is apparent that the game server 1 can alternatively perform some of the functions of the communication terminal 2. One of the examples provided is the server 1 carrying out the battle with the determined procedure instead of the communication terminal 2." *Id.*

Petitioner replies that "the POR misrepresents the portion of Ex. 1001 cited above it (18:51–63) as providing an example of, and explaining that, the server is carrying out the battle instead of the communication terminal." Pet Reply 23 (citing PO Resp. 37). According to Petitioner, "[t]hese statements twist the facts, as the copied portion of the disclosure explains no such thing. Indeed, the only example provided pertains to displaying a game screen, and how the server and communication terminal may share that processing." *Id.* (citing Ex. 1001, 18:51–63).

Patent Owner responds further that Petitioner's allegation that the quoted portion of the Specification "only relates to displaying the game screen . . . makes no sense because the disclosure clearly says that the display is 'based on data generated by the game server 1.'" PO Sur-Reply 14.

We agree with Patent Owner. Nothing in the quoted paragraph suggests that the processes discussed are limited to processes that display a game screen. Ex. 1001, 18:51–63. Rather, that process is given as an example. *Id.*

ii. Second Set of Contested Recitations

Petitioner asserts that the Specification of the '308 patent fails to provide support for:

> *when the user has not battled with the determined opponent in the past, automatically determining a procedure for executing the battle to be a first mode* for executing the battle based on at least one user operation received from the communication terminal;
>
> *when the user has battled with the determined opponent in the past, determining, based on at least one user operation* received from the communication terminal, the procedure to be one of the first mode and a second mode for executing the battle with fewer user operations received from the communication terminal than in the first mode.

Pet. 45 (citations omitted). Petitioner asserts that "the specification never describes determining the procedure for the battle *based on whether the user has battled with an opponent in the past*." *Id.* According to Petitioner, "[t]he specification describes the system either 'automatically' selecting the manual mode . . . or allowing the user to select either the manual mode or the automatic mode . . . But the specification describes making this choice *based on whether the user has* ***won*** *against the opponent* in the past, not whether the opponent was battled." *Id.* at 46 (citations omitted).

Patent Owner disagrees, responding that "the specification describes embodiments in which the procedure for the battle is based on whether the user has battled an opponent in the past and also describes narrower embodiments in which the procedure for the battle is based on whether the user has won against the opponent in the past." PO Resp. 38. As an example, Patent Owner quotes a portion of the "Solution to the Problem" section of the Specification, which states that "when the identifier of the opponent with whom the battle begins does not match the identifier of the opponent included in the battle history, determining the procedure for conducting the battle to be the first mode." *Id.* at 38–39 (citing Ex. 1001, 2:1–16). Patent Owner also quotes another portion of the Specification, which states:

> the game server comprising: a storage unit configured to store a battle history including an identifier of an opponent with whom a user has battled in the battle game; a procedure determination unit configured to determine, based on the battle history and on an identifier of an opponent with whom a battle begins, a procedure for conducting the battle in the battle game.

Id. at 39 (citing Ex. 1001, 3:44–57). Patent Owner explains that the solutions described in these portions of the Specification do not "refer to any win-loss information at all for determining the battle mode." *Id.* According to Patent Owner, "[t]hey only determine whether an identifier the opponent matches an identifier of an opponent in the battle history." *Id.*

Petitioner does not address Patent Owner's response. *See* Pet. Reply. 21–23.

We agree with Patent Owner that Petitioner has not met its burden for the reasons discussed above, and note further that these challenged limitations are also present in original claim 1.

iii. Third Contested Recitation

Petitioner asserts that the Specification does not provide support for "*when the user has not battled with the determined opponent in the past, automatically* determining a procedure for executing the battle to be a first mode for executing the battle *based on at least one user operation* received from the communication terminal." Pet. 49 (citations omitted). According to Petitioner, "[t]he portions of the specification relating to automatically determining the procedure to be the first mode . . . disclose that if the user has not won against the determined opponent before, the game server proceeds directly to 'transmit[ting] an instruction to the communication terminal to conduct the battle in manual mode.'" *Id.* (citing Ex. 1001, 8:59–65, 14:47–53).

Patent Owner responds that "none of the claims require any user input prior to automatically determining the procedure to be the first mode (e.g., the disclosed

'manual mode')." PO Resp. 41. Petitioner does not respond to this argument either. *See* Pet. Reply 21–23.

As the limitation at issue is supported by claim 1 as originally filed, and Petitioner has not sufficiently demonstrated why this limitation lacks written description support, we agree with Patent Owner.

3. Conclusion re 35 U.S.C. § 112(a)

For these reasons discussed above, we are not persuaded that Petitioner has met its burden of showing that claims 1–8 lack written description support.

D. Claims 1–8 as Indefinite Under 35 U.S.C. § 112(b)

Petitioner asserts that, "the claims of the '308 patent lack sufficient written description support in the specification. As a result, they omit matter essential to the claims and also are indefinite." Pet. 52. Specifically, Petitioner asserts that the absence of disclosure of the limitations discussed in Part II.D (i.e., the limitations directed to executing the battle, automatically determining a procedure for executing the battle to be a first mode when the user has not battled with the determined opponent in the past, and automatically determining a procedure for executing the battle to be a first mode for executing the battle based on at least one user operation) render the metes and bounds of the claimed invention vague and unclear, and thus indefinite. *Id.* at 52–53.

1. Legal Standard

"[A] patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent and the prosecution history, fail to inform with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus, Inc. v. Biosig Inst., Inc.*, 134 S. Ct. 2120, 2123 (2014); *In re Packard*, 751 F.3d 1307, 1311 (Fed. Cir. 2014) (holding a claim is indefinite when it contains words or phrases whose meaning is "unclear in describing and defining

the claimed invention"). "The claims, when read in light of the specification and the prosecution history, must provide objective boundaries for those of skill in the art." *Interval Licensing, LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014). We determine that claims 1–8 are not indefinite under the *Nautilus* standard and the *Packard* standard.

2. Analysis

i. "Executing the Battle"

With respect to the claim limitations involving "executing the battle," the following constitutes the entirety of argument set forth in the Petition:

> With respect to the absence of disclosure regarding the "executing the battle" limitation, the specification is unclear, for example, as to how the game server executes the battle, since the only disclosure is of execution on the terminal. Indeed, the structure described as receiving an instruction for execution is the terminal control unit 24, which is on the terminal 2, not the server 1. The reader of the claim would not be clear as to how the server could execute a battle using a structure it does not possess.

Pet. 52. Referencing its response to the challenge of these limitations under § 112(a), Patent Owner responds that "the 308 Patent discloses (i) a scenario in which the server 1 'executes' the battle with the determined procedure by putting the battle into effect, and (ii) another scenario in which the server 1 'executes' the battle with the determined procedure by carrying out the battle." PO Resp. 42. According to Patent Owner, "the skilled artisan would have clearly understood from the specification that the 'metes and bounds' of the recited 'executing the battle with the determined procedure' cover each of these situations." *Id.* (citing Ex. 2001 ¶ 40).

We agree with Patent Owner that a person of ordinary skill in the art, when considering the aforementioned portions of the '308 patent (namely column 18, lines 51–63 quoted in Part II.D.2.i), would have understood that the "executing the

battle" can be performed by the game server or the terminal. PO Resp. 42. Petitioner has not provided sufficient countervailing evidence that one of ordinary skill would not have been able to ascertain the metes and bounds of "executing the battle" with reasonable certainty after reading this portion of the '308 patent.

ii. "Automatically Determining a Procedure . . . to be a First Mode"

With respect to the claim limitations involving "automatically determining a procedure for executing the battle to be a first mode," the following constitutes the entirety of argument set forth in the Petition:

> The specification is likewise unclear as to how any part of the process for "automatically determining a procedure for executing the battle to be a first mode" can take place "when the user has not battled with the determined opponent in the past," since the specification only describes considering win and loss information, not whether the user has battled the opponent. Since it is not described, it is unclear how—and by what mechanism of the system—the system would process information about which opponents are battled to enable the "automatic" determination to executed the battle in the first mode.

Pet. 53. Referencing its response to the challenges to these limitations under § 112(a), Patent Owner explains "that the disclosure clearly discloses embodiments in which the procedure for the battle is based on whether the user has battled an opponent in the past without referring to win-loss information." PO Resp. 43 (citing Ex. 2001 ¶ 41). According to Patent Owner, "this can be done by referring to the battle history 112, which indicates which opponents a user has battled in the past." *Id.* (citing Ex. 1001, 7:59–61, 17:24–47).

We agree with Patent Owner that a person of ordinary skill in the art, when considering the aforementioned portions of the '308 patent (namely, column 3, lines 44–57 quoted in Part II.D.2.ii), would have understood that the game server is capable of automatically making the claimed determination. Petitioner has not provided sufficient countervailing evidence that one of ordinary skill would not

have been able to ascertain the metes and bounds of "automatically determining a procedure for executing the battle to be a first mode" with reasonable certainty after reading this portion of the '308 patent.

iii. "Automatically Determining A Procedure . . . to Be a First Mode for Executing the Battle Based on At Least One User Operation"

With respect to the claim limitations involving "automatically determining a procedure for executing the battle to be a first mode for executing the battle based on at least one user operation," the following constitutes the entirety of argument set forth in the Petition:

> With respect to the absence of disclosure regarding the "automatically determining a procedure for executing the battle to be a first mode" being performed "based on at least one user operation," [t]he specification is unclear as to how the process could be both "automatic" and be "based on at least one user operation." Even on its face this element is unclear and difficult to parse. Further, since the specification never discloses that this determination is based on a user operation, the reader would be confused by the claim language reciting it as such, and unable to resolve the apparent inconsistency of this limitation by consulting the specification.

Pet. 53. Referencing its response to the challenge to this limitation under § 112(a), Patent Owner explains that "this allegation is based on a misreading of the claims. None of the claims require that the automatic determination of the procedure is based on at least one user operation." PO Resp. 44.

We agree with Patent Owner. As discussed above in Part II.D.2.iii, the claims at issue do not require automatic determination based on a user operation. Petitioner has not provided sufficient countervailing evidence that one of ordinary skill would not have been able to ascertain the metes and bounds of "automatically determining a procedure for executing the battle to be a first mode."

3. Conclusion re 35 U.S.C. § 112(b)

For these reasons discussed above, we are not persuaded that Petitioner has met its burden of showing that claims 1–8 are indefinite under 35 U.S.C. § 112(b).[9]

E. Conclusion

For the reasons discussed above, we are persuaded that Petitioner has met its burden of showing, by a preponderance of the evidence, that claims 1–8 of the '308 patent are unpatentable, but on the § 101 ground only.

III. CONTINGENT MOTION TO AMEND

Patent Owner requests that "should the PTAB determine the patent claims to be unpatentable, . . . the 308 Patent be amended to replace the patent claims with the proposed substitute claims." PO MTA 1. Specifically, Patent Owner requests that claims 1–8 be replaced with claims 9–16. *See id.* at 1–2. The proposed substitute claims read as follows:

> 9. A non-transitory computer readable recording medium having stored thereon instructions to be executed on a computer transmitting a battle game to a communication terminal that is connected to the computer over a network, the instructions causing the computer to perform the steps of:
>
> communicating with the communication terminal over the network;
>
> receiving an input signal from the communication terminal to configure a battle of the battle game, wherein the input signal comprises at least one user operation of a user of the communication terminal;
>
> in response to the user operation, determining an opponent with whom the user is to battle in the battle of the battle game;
>
> determining whether the user has battled with the determined opponent in the past;
>
> ~~when~~ in response to a determination that the user has not battled with the determined opponent in the past, automatically determining a

[9] We note that Petitioner does not reply to any of Patent Owner's specific arguments regarding indefiniteness in its Reply. *See* Pet Reply 23–24.

procedure for executing the battle to be a first mode for executing the battle, the first mode causing the battle to be executed based on at least one user operation received from the communication terminal;

~~when~~ in response to a determination that the user has battled with the determined opponent in the past, determining, based on at least one user operation received from the communication terminal, the procedure to be one of the first mode and a second mode, execution of the battle with the second mode:

requiring fewer user operations received from the communication terminal for executing the battle with ~~fewer user operations received from the communication terminal~~ than in the first mode;

automatically selecting commands of the user during the battle without user input, by (i) selecting commands having an attack command type to automatically attack enemy characters of the opponent in order starting with a first one of the enemy characters or (ii) automatically prioritizing the selection of commands with a long recovery turn, the selection of commands and attack of enemy characters being conducted without any display of the selection or the attack on the communication terminal; and

causing the battle to be represented on the communication terminal with a second mode display screen, the second mode display screen having:

a shorter display time than a first mode display screen; and

a simpler visual rendition than the first mode display screen; and

executing the battle with the determined procedure.

10. The non-transitory computer readable recording medium according to ~~claim 1~~claim 9, wherein the instructions further cause the computer to perform the step of:

displaying information related to a reward at the communication terminal, the reward being provided to the user when the user win the battle.

11. The non-transitory computer readable recording medium according to ~~claim 2~~claim 10, wherein the instructions further cause the computer to, during the execution of the battle, perform the steps of:

displaying an image at the communication terminal, the image being configured to receive at least one user operation for causing a player character to perform a command; and

upon receipt of the at least one user operation for causing the player character to perform the command, temporarily suspending receipt of user operations on the image.

12. The non-transitory computer readable recording medium according to ~~claim 2~~claim 10, wherein the instructions further cause the computer to, during the execution of the battle, perform the steps of:

when the procedure for executing the battle is the first mode, displaying an image at the communication terminal, the image being configured to receive at least one user operation for causing a player character to perform a command; and

when the procedure for executing the battle is the second mode suspending displaying of the image at the communication terminal.

13. The non-transitory computer readable recording medium according to ~~claim 1~~claim 9, wherein the instructions further cause the computer to, during the execution of the battle, perform the steps of:

displaying an image at the communication terminal, the image being configured to receive at least one user operation for causing a player character to perform a command; and

upon receipt of the at least one user operation for causing the player character to perform the command, temporarily suspending receipt of user operations on the image.

14. The non-transitory computer readable recording medium according to ~~claim 1~~claim 9, wherein the instructions further cause the computer to, during the execution of the battle, perform the steps of:

when the procedure for executing the battle is the first mode, displaying an image at the communication terminal, the image being configured to receive at least one user operation for causing a player character to perform a command; and

when the procedure for executing the battle is the second mode, suspending displaying of the image at the communication terminal.

15. A game server for transmitting a battle game to a communication terminal of a user that is connected to the game server over a network, the game server comprising:

a communication interface configured to communicate with the communication terminal over the network and receive an input signal from the communication terminal, wherein the input signal comprises at least one user operation of a user of the communication terminal; and

a processor connected to the communication interface, wherein the processor is programmed to:

in response to the user operation, determine an opponent with whom the user is to battle in a battle of the battle game;

determine whether the user has battled with the determined opponent in the past;

~~when~~ in response to a determination that the user has not battled with the determined opponent in the past, automatically determine a procedure for executing the battle to be a first mode for executing the battle, the first mode causing the battle to be executed based on at least one user operation received from the communication terminal;

~~when~~ in response to a determination that the user has battled with the determined opponent in the past, determine, based on at least one user operation received from the communication terminal, the procedure to be one of the first mode and a second mode, execution of the battle with the second mode:

requiring fewer user operations received from the communication terminal for executing the battle with fewer user operations received from the communication terminal than in the first mode;

automatically selecting commands of the user during the battle without user input, by (i) selecting commands having an attack command type to automatically attack enemy characters of the opponent in order starting with a first one of the enemy characters or (ii) automatically prioritizing the selection of commands with a long recovery turn, the selection of commands and attack of enemy characters being conducted without any display of the selection or the attack on the communication terminal; and

causing the battle to be represented on the communication terminal with a second mode display screen, the second mode display screen having:

a shorter display time than a first mode display screen; and

a simpler visual rendition than the first mode display screen; and

execute the battle with the determined procedure.

16. A control method comprising the steps of:

communicating, by a game server, with a communication terminal connected to the game server over the network including transmitting, by the game server, a battle game to the communication terminal;

receiving, by the game server, an input signal from the communication terminal to configure a battle of the battle game, wherein the input signal comprises at least one user operation of a user of the communication terminal;

in response to the user operation, determining an opponent with whom the user is to battle in the battle of the battle game;

determining whether the user has battled with the determined opponent in the past;

~~when~~ in response to a determination that the user has not battled with the determined opponent in the past, automatically determining a procedure for executing the battle to be a first mode for executing the battle, the first mode causing the battle to be executed based on at least one user operation received from the communication terminal;

~~when~~ in response to a determination that the user has battled with the determined opponent in the past determining, based on at least one user operation received from the communication terminal, the procedure to be one of the first mode and a second mode, execution of the battle with the second mode:

requiring fewer user operations received from the communication terminal for executing the battle ~~with fewer user operations received from the communication terminal~~ than in the first mode;

automatically selecting commands of the user during the battle without user input, by (i) selecting commands having an attack command type to automatically attack enemy characters of the opponent in order starting with a first one of the enemy characters or (ii) automatically prioritizing the selection of commands with a long recovery turn, the selection of commands and attack of enemy

characters being conducted without any display of the selection or the attack on the communication terminal; and

causing the battle to be represented on the communication terminal with a second mode display screen, the second mode display screen having:

a shorter display time than a first mode display screen; and

a simpler visual rendition than the first mode display screen; and

executing the battle with the determined procedure.

A. Procedural Requirements

"Before considering the patentability of any substitute claims, however, the Board first must determine whether the motion to amend meets the statutory and regulatory requirements set forth in 35 U.S.C. § 316(d) and 37 C.F.R. § 42.121." *Lectrosonics, Inc. v. Zaxcom, Inc.*, Case IPR2018-01129, 2019 WL 1118864, at *2 (PTAB Feb. 25, 2019) (precedential).

The first requirement is that the Motion to Amend propose a reasonable number of substitute claims. 35 U.S.C. § 316(d)(1)(B). "There is a rebuttable presumption that a reasonable number of substitute claims per challenged claim is one (1) substitute claim." *Lectrosonics*, 2019 WL 1118864, at *2 (citing 37 C.F.R. § 42.121(a)(3)). The Petition challenges eight claims. At most, the Motion to Amend proposes eight claims, of which we need to substantively evaluate only the three independent claims in any great detail. PO Amend. 1. Under any scenario, we determine that the number of proposed claims is reasonable.

The second requirement is determining whether the proposed amended claims respond to a ground of unpatentability involved in this trial. *Lectrosonics*, 2019 WL 1118864, at *2. To that end, the Motion to Amend proposes adding the following limitations to each of independent claims 9, 15, and 16, as relative to independent claims 1, 7, and 8, respectively:

execution of the battle with the second mode:

> requiring fewer user operations received from the communication terminal for executing the battle than in the first mode;
>
> automatically selecting commands of the user during the battle without user input, by (i) selecting commands having an attack command type to automatically attack enemy characters of the opponent in order starting with a first one of the enemy characters or (ii) automatically prioritizing the selection of commands with a long recovery turn, the selection of commands and attack of enemy characters being conducted without any display of the selection or the attack on the communication terminal; and
>
> causing the battle to be represented on the communication terminal with a second mode display screen, the second mode display screen having:
>
> a shorter display time than a first mode display screen; and
>
> a simpler visual rendition than the first mode display screen;

PO MTA 15–16. Patent Owner asserts that this is to render the claims patent eligible. *Id.* at 14–21. Petitioner responds that "PO merely recycles arguments from the POR alleging the 'second mode' [is patentable]. PO never addresses why any of the added claim language is responsive to either of the asserted Section 101 or 112 grounds." Pet. Opp. to MTA 2. According to Petitioner, "the Motion is nearly devoid of the amended-in claim language, reciting a portion of the new language exactly once (providing greater detail about the second mode)." *Id.* (citing PO MTA 15–16); *see also* Pet. Sur-Reply to Opp. to MTA 2–3. Patent Owner replies that "replacement claims 9, 15, and 16, add features that recite—in detail—the operation of the claimed 'second mode.' As such, they clearly address a ground of unpatentability." PO Reply to Opp. to MTA 2. Patent Owner replies further that these claims "add features that expressly recite the previously implicit function/step of 'determining whether the user has battled with the determined

opponent in the past' and recite the prior 'when' features as being in response to the result of that determination." *Id.* According to Patent Owner, "they address Petitioner's allegation that the 'when' limitations result in optional features that can be ignored for § 101 purposes." *Id.* (citing Pet. 16, 33; Pet. Reply 2–3). We agree with Patent Owner, and determine that the amended claims are responsive to the grounds of unpatentability involved in this trial.

The third requirement is that "[a] motion to amend may not present substitute claims that enlarge the scope of the claims of the challenged patent or introduce new subject matter." *Lectrosonics*, 2019 WL 1118864, at *3 (citing 35 U.S.C. § 316(d)(3); 37 C.F.R. § 41.121(a)(2)(ii)). Petitioner does not assert that the amendment enlarges the scope of the claims. *See generally*, Pet. Opp. to MTA. As noted by Patent Owner, "no features of the original patent claims have been removed. That is, the only deleted text results from having moved a phrase from one location to another or replacing the word 'when,' with the phrase 'in response to a determination that,' which is of equal or narrower scope." PO MTA 2.

To demonstrate that the substitute claims do not introduce new subject matter, Patent Owner provides a claim chart identifying the paragraphs in the Specification of the '308 patent and its parent Application No. 14/445,652, which provide support of the features added to the substitute claims. PO MTA 3–11. Petitioner responds that "Patent Owner has not shown written description support sufficient to meet the burden of production under 35 U.S.C. § 316(d)(3)." Pet. Opp. to MTA 1. Patent Owner replies that the Motion to Amend "provides a claim chart including pinpoint paragraph citations of between two and four paragraphs for each respective claim element." PO Reply to Opp. to MTA 1 (citing PO MTA 4–11). According to Patent Owner, "those pinpoint citations clearly establish support for the corresponding element of each claim." *Id.* We agree with Patent

Owner, for the reasons provided, that the amended claims do not enlarge the scope of the claim or introduce new subject matter.

Finally, the Motion to Amend includes a claim listing, as required by 37 C.F.R. § 42.121(b). PO Amend. 26–34; *Lectrosonics*, 2019 WL 1118864, at *4.

In view of the above, we determine that Patent Owner's Motion to Amend meets the statutory and regulatory requirements of 35 U.S.C. § 316(d) and 37 C.F.R. § 42.121 in a manner sufficient to proceed with the issue of whether Petitioner has met its burden of persuasion with respect to patentability.

B. Claim Construction

Petitioner proposes a claim construction for the claim term "execute." Pet. Opp. to MTA 3. As construction of this claim term is not necessary to resolve the controversy, we see no need to construe this claim term. Petitioner also notes that claims 9, 15, and 16 recite alternative limitations. *Id.* at 3. Petitioner is correct. Petitioner has not made us aware, however, of any requirement that prevents claims from reciting alternative limitations, and we are also unaware of such a requirement.

C. Patentability of Substitute Claims 9, 15, and 16

1. Eligibility of Substitute Claims under 35 U.S.C. § 101

Petitioner asserts that the proposed substitute claims are directed to an abstract idea and contain no inventive concept beyond the abstract idea. Pet. Opp. to MTA 5–21. Petitioner's arguments are similar to those discussed above in Part II.B. In the interest of brevity we do not repeat those arguments. Instead, we address the core issue: whether the substitute claims integrate the judicial exception into a practical application.

Independent claims 9, 15, and 16 have each been amended to recite explicitly a second mode having "a shorter display time than a first mode display

screen and a simpler visual rendition than the first mode display screen." PO MTA 27–28, 32, 34. By virtue of their dependence from claim 9, 15, or 16, claims 10–14 also include these limitations. Patent Owner contends, for example, that the substitute claims are similar to those found to be patent eligible in *Core Wireless*. *Id.* at 17–19. Specifically, Patent Owner asserts that the substitute claims "reduce the time of conducting the battle and reduce the processing load on the system because the system (i) has to act on fewer user inputs when conducting the battle, and (ii) avoids the complex rendering of the manual mode battle screen 9 when conducting the battle." *Id.* at 18 (citing Ex. 1001, 1:21–49, 11:63–67, 17:16–23; Ex. 2001 ¶ 24).

Petitioner responds that "[t]he proposed substitute claims, by contrast, recite only generalized functions associated only with a generic 'display screen,' without providing any specific GUI structure like *Data Engine* or improvement to small-screen interfaces like *Core Wireless*." Pet. Opp. to MTA 10. Petitioner responds further that "the second mode is not required for performance of the claim. Thus, in instances in which the determined processing mode is the first mode, there is no processing via the second mode, and thus the alleged savings in processing load is not available." *Id.* at 13 (citing Ex. 1010, 163:21–164:23). In addition, Petitioner asserts that "the proposed substitute claims do not transform the abstract idea into patent-eligible subject matter because the claim elements additional to what a claim is 'directed to' do not integrate the judicial exception into a practical application." *Id.*

We agree with Patent Owner that the proposed substitute claims are similar to the claims in *Core Wireless*, in that the claims explicitly recite both the computer-specific manner in which reductions in processing load are realized during operation of the second mode, e.g., by decreasing display time and using

simpler visual renditions, as well as the computer-specific results themselves. For example, Petitioner has not explained sufficiently how those limitations, i.e., "a shorter display time than a first mode display screen; and a simpler visual rendition than the first mode display screen," are either (1) part of the judicial exception, or (2) do not constitute an improvement specific to computer processing technology. Additionally, we are not persuaded that this improvement in processing is negated by the fact that the second mode is not always utilized. Petitioner has not explained adequately why, as long as the improvement is utilized during some game play, it is insufficient to transform the claimed judicial exception into a practical application.

2. Written Description Support for Substitute Claims

Petitioner contends that the substitute claims lack written description support. Pet. Opp. to MTA 21–24. Petitioner's arguments are similar to those discussed above in Part II.C. Petitioner's arguments as applied to the substitute claims are no more persuasive than as applied to the original claims for the reasons discussed in Part II.C. Moreover, as discussed above in Part III.A, Patent Owner has demonstrated adequate written description support for the substitute claims. Accordingly, we find that Patent Owner has met the burden of production for substitute claims 9–16.

3. Indefiniteness of Substitute Claims

Petitioner contends that the substitute claims are indefinite. Pet. Opp. to MTA 24–25. Petitioner's arguments are similar to those discussed above in Part II.D. Petitioner's arguments are no more persuasive as applied to the substitute claims as applied to the original claims for the reasons discussed in Part II.D. Accordingly, we find that Patent Owner has met the burden of production for substitute claims 9–16.

IV. MOTION TO EXCLUDE

On May 14, 2019, Patent Owner filed a Motion to Exclude. Paper 30. On May 21, 2019, Petitioner filed an Opposition to Patent Owner's Motion to Exclude. Paper 36. On May 31, 2019, Patent Owner filed a Reply to Petitioner's Opposition to Motion to Exclude. Paper 37.

In its Motion, Patent Owner moved to exclude Exhibit 1011. Patent Owner's Motion to Exclude is moot, as this Decision does not reference Exhibit 1011. According, we deny Patent Owner's Motion to Exclude.

V. ORDER

After due consideration of the record before us, and for the foregoing reasons, it is:

ORDERED that claims 1–8 of the '308 patent are held unpatentable;

FURTHER ORDERED that Patent Owner's Motion to Amend is *granted* with respect to substitute claims 9–16.

FURTHER ORDERED that Patent Owner's Motion to Exclude 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.

PGR2018-00039
Patent 9,669,308 B2

For PETITIONER:

Jennifer R. Bush
Michael J. Sacksteder
FENWICK & WEST LLP
jbush-ptab@fenwick.com
msacksteder@fenwick.com

For PATENT OWNER:

Jesse Collier
lmostrom@oliff.com