Trials@uspto.gov
571-272-7822

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SUPERCELL OY,
Petitioner,

v.

GREE, INC.,
Patent Owner.

Case PGR2018-00055
Patent 9,687,744 B2

Before LYNNE H. BROWNE, HYUN J. JUNG, and CARL M. DEFRANCO, *Administrative Patent Judges*.

BROWNE, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Claims Unpatentable
Denying Patent Owner's Motion to Amend

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 1–12 of U.S. Patent No. 9,687,744 B2 ("the '744 patent") (Ex. 1001) pursuant to 35 U.S.C. §§ 321–329. Paper 1. GREE, Inc. ("Patent Owner") filed a Preliminary Response. Paper 10.

On September 25, 2018, we issued a Decision ordering that "pursuant to 35 U.S.C. § 324, a post-grant review is hereby instituted for claims 1–12 of the '744 patent with respect to all grounds set forth in the Petition." Paper 11, 24, "Dec." After institution, Patent Owner filed a Patent Owner's Response (Paper 14, "PO Resp.") and a Patent Owner's Contingent Motion to Amend (Paper 15, "PO MTA"). Thereafter, Petitioner filed a Petitioner's Reply to Patent Owner's Response (Paper 23, "Pet. Reply") and a Petitioner's Opposition to Motion to Amend (Paper 24, "Pet. Opp. to MTA"). Patent Owner then filed a Patent Owner's Sur-Reply (Paper 27, "PO Sur-Reply") and a Patent Owner's Reply to Opposition to Motion to Amend (Paper 26, "PO Reply to Opp. to MTA"). Petitioner subsequently filed a Petitioner's Sur-Reply to Opposition to Patent Owner's Motion to Amend (Paper 29, "Pet. Sur-Reply to Opp. to MTA"). Patent Owner and Petitioner presented oral arguments on June 27, 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 1–12 of the '744 patent are patent ineligible. We further determine that Petitioner has met its burden by showing, by a preponderance of the evidence, that the proposed amended claims are also patent ineligible.

The '744 patent relates generally to improvement of a video battle game by:

> providing a battle game between groups, which are composed of characters operated by players through client devices . . . wherein a server device stor[es], for each character, a parameter which serves as an indicator for developing the battle game between the groups: calculates a difference in the parameter between two characters belonging to the same group . . . and performs presentation processing [for] increasing an effect of attack by the group according to the difference in the parameter.

Ex. 1001, 1:65–2:8.

The '744 patent explains that in a battle game, in order "[f]or a plurality of players to make successive attacks in cooperation with each other, the players need to be proficient in the battle game to a certain extent, and there is hardly any scene where inexperienced players can play active parts." *Id.* at 1:53–57. Consequently, "inexperienced players are not sufficiently motivated to participate in the battle game." *Id.* at 1:58–60. According to the '744 patent, this problem is solved by the operations outlined *supra*. *Id.* at 1:64–65. These operations are illustrated by the

flowchart shown in Figure 6 reproduced below:

FIG. 6

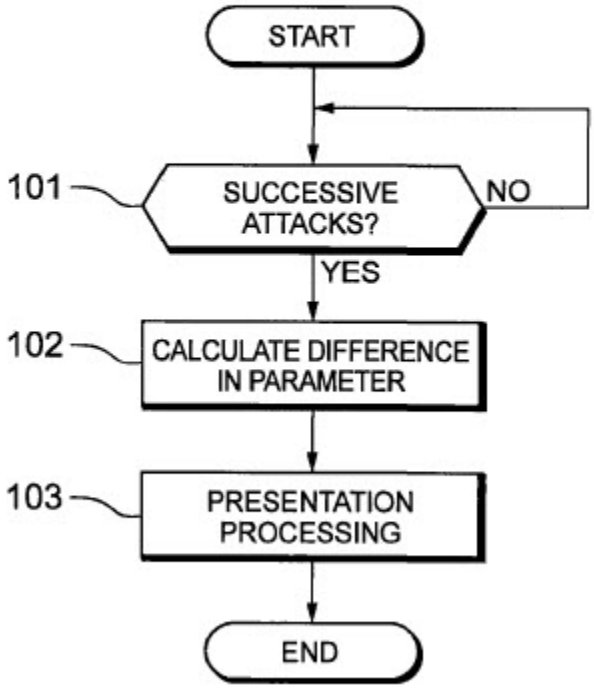


Figure 6 "is flowchart showing flow of 'combo' presentation processing according to the embodiment." *Id.* at 2:31–32. As shown in Figure 6:

> When the presentation processing module 41 detects successive attacks by two characters belonging to the same group (step 101: YES), the presentation processing module 41 calculates the difference in the parameter 50 between the two characters successive in the attack order (step 102), and performs presentation processing of increasing the effect of attack by the group according to the difference in the parameter 50 (step 103).

Id. at 6:49–56 (emphasis omitted).

A. Related Matters

The parties state that there are no related matters. Pet. 1; Paper 5, i–ii.

B. Illustrative Claim

Claims 1, 5, and 9 are independent. Illustrative claim 1 is reproduced below:

> 1. A method for providing a battle game to each of a plurality of client devices via a network, comprising:
>
> storing, by a server device, for each of a plurality of characters, a parameter that serves as an indicator for developing the battle game; and
>
> controlling, by a processor of the server device, an effect of attack by a group, according to a difference in the parameter between two characters belonging to the same group and successive in attack order and to a number of attacks within a predetermined time by any characters in the group.

Ex. 1001, 7:54–64.

Additionally, independent claims 5 and 9 are directed to a method and system, respectively. *Id.* at 8:12, 8:40. Each independent claim recites, with some variation, limitations directed to a network storing a parameter for each character and controlling an effect of an attack based on a difference in parameter between two characters. *See id.* at 7:54–65, 8:12–24, 8:40–54.

C. The Alleged Grounds of Unpatentability

The Petition asserts that claims 1–12 of the '744 patent are unpatentable as being directed to non-statutory subject matter under 35 U.S.C. § 101 (Pet. 23–51), lacking adequate written description under 35 U.S.C. § 112(a) (Pet. 51–63), and being indefinite under 35 U.S.C. § 112(b) (Pet. 63–68).

D. Eligibility of Patent for Post-Grant Review

The post-grant review provisions of the Leahy-Smith America Invents Act ("AIA")[1] apply only to patents subject to the first inventor to file provisions of the 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 a claimed 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 27, 2017, issue date of the '744 patent. Pet. 2. Further, the '744 patent was filed on August 30, 2016, and claims priority to U.S. Patent No. 9,457,279 filed on June 19, 2014. *Id.* at 10; Ex. 1001, at codes (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 '744 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 1–12 of the '744 patent are unpatentable.

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

A. Claim Construction

As a step in our analysis, 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) (2017); *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) (citation omitted).

Petitioner asserts that the claim terms "parameter" and "controlling . . . an effect of [an] attack" should be construed. Pet. 21–23. Patent Owner disagrees. PO Resp. 15–18. Construction of these terms, however, is not required for our determination that claims 1–12 of the '744 patent are directed to ineligible subject matter, are properly supported by the

Specification, and are not indefinite for the reasons discussed below. Accordingly, we see no need for an express claim construction of "parameter" or "controlling . . . an effect of [an] attack." *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) ("[W]e need only construe terms 'that are in controversy, and only to the extent necessary to resolve the controversy.'" (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

B. Claims 1–12 as Directed to Patent-Ineligible Subject Matter Under 35 U.S.C. § 101

Petitioner contends that claims 1–12 do not recite patent-eligible subject matter under 35 U.S.C. § 101. Pet. 23–51 (citing Exs. 1001, 1002, 1004–1007); Pet. Reply 3–19 (citing Exs. 1001, 1011, 1012, 2002, 2019). Patent Owner disagrees. PO Resp. 18–55 (citing Exs. 1001, 2002); PO Sur-Reply 2–23 (citing Exs. 1001, 1011, 2002, 2006–2008).

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 the Patent Owner's Response, but before the filing of the 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. Application of the Guidance

As discussed above in Part II.B.1, the Guidance issued after the filing of the Petition and Patent Owner's Response, but before the filing of the Petitioner's Reply and Patent Owner's Sur-Reply. In its Reply, Petitioner applies the Guidance. *See*, *e.g.*, Pet. Reply 4–5. Patent Owner addresses the Guidance in its Sur-Reply. PO Sur-Reply 3–8. Both Patent Owner and Petitioner addressed the Guidance during oral arguments. *See generally* Paper 34 ("Tr."). Accordingly, both Parties had ample opportunity to address the Guidance, and we see no prejudice to either Party in our application of the Guidance.

Having established that the Guidance applies to the subject-matter eligibility issues in the proceeding, we consider Petitioner's assertions under the Guidance and Patent Owner's response thereto.[2]

[2] We agree with Patent Owner that in most circumstances, we should not consider arguments that were not raised in the Petition. PO Sur-Reply 2. In this instance, however, Petitioner's new arguments are made in response to the issuance of the Guidance and Patent Owner's Response, which explicitly

In the interest of brevity, and as these issues are dispositive, we limit our discussion to those issues.

b. Whether "Controlling an Effect of Attack According to a Difference in Parameter Value Between Two Characters and to a Number of Attacks within a Predetermined Time" is an Abstract Idea

For the convenience of the reader, we reproduce claim 1 again below:

> 1. A method for providing a battle game to each of a plurality of client devices via a network, comprising:
>
> storing, by a server device, for each of a plurality of characters, a parameter that serves as an indicator for developing the battle game; and
>
> controlling, by a processor of the server device, an effect of attack by a group, according to a difference in the parameter between two characters belonging to the same group and successive in attack order and to a number of attacks within a predetermined time by any characters in the group.

Ex. 1001, 7:54–64. In its response to this challenge, Patent Owner essentially confines its arguments to claim 1 and does not separately address claims 2–12.[3] *See generally* PO Sur-Reply. Regarding the independent claims, Petitioner, likewise, essentially confines its

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argues that the claims do not fall within any of the categories (i.e., mathematical concept, method of organizing human activity, or mental processes) set forth in the Guidance. PO Resp. 24. Accordingly, it is appropriate for us to consider Petitioner's arguments that the claims recite either a mathematical process or certain methods of organizing human activity which are patent ineligible. We further note that during the oral arguments, Patent Owner conceded that it had the opportunity to address these arguments in its Sur-Reply. Tr. 21:1–22:2.

[3] Patent Owner refers to claim 4 as an example on pages 5 and 19 of its Sur-Reply and briefly mentions the dependent claims as a group on pages 19 and 21, but does not present arguments that substantially differ from the arguments presented for claim 1. PO Sur-Reply 5, 19, 21.

arguments to claim 1. Pet. Reply 3–13. Although Petitioner separately addresses the dependent claims, it essentially repeats the same arguments presented for claim 1. *Id.* at 14–15. Thus, we understand that both Patent Owner and Petitioner consider claim 1 to be representative of claims 2–12 for this challenge. Accordingly, we do so as well.

i. Mathematical Concepts

Petitioner asserts that "the challenged claims are directed to . . . a 'purely mathematical concept.'" Pet. Reply 4. In support, Petitioner contends that claim 1 recites "a mathematical function in which the control of an effect of attack 'is a function of' two data inputs: '(1) the difference in parameters for each player-character in a combo, and (2) the number of attacks executed by the player-characters within a predetermined time frame.'" *Id.* (citing Ex. 1011, 75:20–22; PO Resp. 27). Patent Owner disagrees, asserting that the limitations "between two characters belonging to the same group and successive in attack order" and "within a predetermined time by any characters in the group" are not mathematical. PO Sur-Reply 5.

During oral argument, Petitioner suggested that the claimed parameters are numerical values. Tr. 6:13–8:11. With this suggestion in mind, Petitioner argued that the claimed difference in parameters is a mathematical function. *Id.* at 8:14–23. Specifically, when queried as to how the claimed limitations could be expressed as a mathematical calculation, Petitioner explained that "there are two things that go into this, the difference, one is the difference in the parameters, whatever those are, between two characters who are going to attack successively, and the second

is a number of attacks within a predetermined time by any characters in the group." *Id.* at 8:14–18. Petitioner explained further that

> there are some references in the specification to P delta 1, you know, and so you have the delta between parameter one and parameter one, you know, the first player and the second player. You know, there is a difference between those, so it's a parameter of player one, minus parameter of player two perhaps, would be one way to, I think, implement what the claims appear to be talking about.

Id. at 9:2–7.

Patent Owner disagrees. Tr. 36:14–37:9. According to Patent Owner, the limitation "according to a difference in the parameters between two characters" is "a math sort of step but it's not directed to a mathematical concept, it doesn't have the formula in it. It's not the sort of example that the Federal Circuit or the Patent Office looks at as a mathematical concept." *Id.* at 37:7–9.

On the record before us, we determine that Petitioner has not shown adequately that the limitations at issue are mathematical concepts. Rather, we agree with Patent Owner that these limitations—although math related—are not the kind of mathematical relationships, mathematical formulas or equations, or mathematical calculations found by the Federal Circuit to be patent ineligible. Guidance, 84 Fed. Reg. at 52 n.12. Accordingly, we determine that claims 1–12 are not drawn to mathematical concepts.

ii. Certain Methods of Organizing Human Activity

Petitioner asserts that the challenged claims are directed to "a 'method of organizing human activity.'" Pet. Reply 4. Specifically, Petitioner contends that the claims at issue are similar to those in *Planet Bingo, LLC v. VKGS LLC*, 576 F. App'x 1005, 1007–08 (Fed. Cir. 2014), *In re Smith*, 815

F.3d 816, 819 (Fed. Cir. 2016), and *In re Marco Guldenaar Holding B.V.*, 911 F.3d 1157 (Fed. Cir. 2018). *Id.* at 5. According to Petitioner, "the '744 [patent] broadly recites a rule for a battle video game (described by PO as a 'game mechanic'), in which the effect of attack is controlled 'according to' the difference in parameters for each player-character in a combo and the number of attacks within a predetermined time frame." *Id.* (citing Ex. 1001, 7:59–64; PO Resp. 3, 27 (describing the recited "cooperative game mechanic," in which the recited "rules" control the effect of attack)). For this part of its challenge, Petitioner addresses independent claims 1, 5, and 9 together. Pet. Reply 3–11.

Patent Owner responds by comparing claim 1 to the claims found to be patent eligible in *Core Wireless*[4], *DDR Holdings*[5], and *McRO*[6]. PO Sur-Reply 8–14, 16. Patent Owner does not separately address independent claims 5 and 9 for these arguments or the arguments that follow. *Id.* at 8–17. Accordingly, we understand Patent Owner's Response to apply to independent claims 5 and 9 as well.

For *Core Wireless*, Patent Owner contends that the limitation "storing, by a server device, for each of a plurality of characters, a parameter that serves as an indicator for developing the battle game" is similar to the limitation "a display screen, the computing device being configured to display on the screen a main menu listing at least a first application, . . . and

[4] *Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, 880 F.3d 1356 (Fed. Cir. 2018).
[5] *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014).
[6] *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016).

additionally being configured to display on the screen an application summary window that can be reached directly from the main menu" at issue in that case. PO Sur-Reply 8, 28;[7] *see also* Ex. 1001, 7:56–58. Patent Owner further contends that the limitation "controlling, by a processor of the server device, an effect of attack by a group" is similar to the limitation "wherein the application summary window displays a limited list of at least one function offered within the first application" at issue in *Core Wireless*, and the limitation "according to a difference in the parameter between two characters belonging to the same group and successive in attack order" is similar to the limitation "each function in the list being selectable to launch the first application and initiate the selected function." *Id.* at 8–9, 28; *see also* Ex. 1001, 7:57–62.

Patent Owner explains:

> Challenged claim limitation [1a] is analogous to the display function in *Core Wireless*—while the display is configured to present information in a certain format, claim 1 stores parameters in a certain format that serves as an indicator for developing the game. Limitation [1b] is analogous to the application summary window because both limitations impose conditions on what is being displayed or controlled—controlling an effect of attack when it is performed by a group of characters, or displaying a limited list of at least one function so long as it is offered within the application. Limitations [1c] and [1d] are analogous to the last limitations in *Core Wireless* because they impose an additional restriction on how something is displayed or controlled—an effect controlled according to a difference in

[7] Page 28 is Appendix A of Patent Owner's Sur-Reply, which is a table labeling each limitation of claim 1 as referenced throughout this document. PO Sur-Reply 28 (App'x A). For ease of comparison, we reproduce each limitation of claim 1 as referenced by Patent Owner.

> parameters and the number of attacks in a predetermined time, and a summary window being displayed while the application is un-launched. Although the terminology differs, the level of detail the two claims recite is the same.

PO Sur-Reply 9–10.[8]

In its Reply, Petitioner asserts:

> In *Core Wireless* the claims recited an improved user interface for computing devices with small screens. The court determined that the patent improved the "efficient *functioning* of a computer," by increasing how quickly a user could navigate through several views on a display through its "particular manner of summarizing and presenting information in electronic devices." *Id.* The claims were not abstract because they recited specific implementation details of the graphical user interface including specific graphical characteristics, a limited set of displayed data, and specific requirements for the state of the device applications.

Pet. Reply 6–7 (citations and parenthetical information omitted).

We agree with Patent Owner that the level of technical specificity of the claims in *Core Wireless* is commensurate in scope with that recited in independent claim 1. That assertion is not dispositive, however, because the claims in *Core Wireless* recite certain aspects not present here, specifically, an improved user interface. Patent Owner agrees that "[i]n Core Wireless, the Federal Circuit found the claim '[] improved user interface for computing devices.'" PO Sur-Reply 10 (citing *Core Wireless*, 880 F.3d at 1362). Accordingly, we compare the claims at issue in this proceeding with those in *Core Wireless* with this distinction in mind.

The above limitations cited by Patent Owner are instructive on this point. For example, one limitation identified by Patent Owner from the

[8] *See supra* note 5.

claim in *Core Wireless* is "an application summary window that can be reached directly from the main menu." PO Sur-Reply 8. We are persuaded that this is a limitation specific to an "improved user interface," in that it defines how the menu of the improved user interface is structured, and how a user would interact with that interface to reach the application summary. By contrast, the analogous limitation, identified by Patent Owner from independent claim 1, is "storing, by a server device, for each of a plurality of characters, a parameter that serves as an indicator for developing the battle game." *Id.* at 8, 28. In this limitation, there is no interaction recited between the user and an interface; the parameters are merely stored.

Indeed, none of the limitations in claim 1, or in any of the claims at issue, pertain to a user interface. Rather, they all recite limitations pertaining to the operation of a processor on either a server device or a client device. *See* Ex. 1001, 7:54–9:2. Accordingly, we are persuaded that the claims at issue in this proceeding are not similar to those found to be patent eligible in *Core Wireless*.

Also relying on *Core Wireless*, Patent Owner asserts that "[f]irst, like the challenged claims, the *Core Wireless* claim was performable on general purpose hardware—mobile phones. Second, like the challenged claims, the *Core Wireless* claim uses active language." PO Sur-Reply 9 (citations omitted). That is certainly correct. It is also not dispositive for all the reasons set forth above.

Turning to *DDR Holdings*, we agree with Petitioner that "[i]n *DDR*, the patent survived because it recited a specific way to automate the creation of a composite web page, and therefore 'provided a solution necessarily rooted in computer technology in order to overcome a problem specifically

arising in computer networks.'" Pet. Reply 7 (citing *DDR Holdings*, 773 F.3d at 1259). Accordingly, we compare the claims at issue in this proceeding with those in *DDR Holdings* with this in mind.

Patent Owner contends that "the problems solved by the claims of the '744 patent are technical problems that only arise in the context of multiplayer online battle games." PO Resp. 21 (citing Ex. 2002 ¶ 22). According to Patent Owner, "[j]ust as the claim in *DDR* solved the 'challenge of retaining control over the attention of the customer in the context of the Internet,' claim 1 solves the challenge of increasing novice players' motivation to participate in the game by reducing technical barriers to accessibility." PO Sur-Reply 13.

Petitioner asserts that the '744 patent "recites no improvement to user interfaces or computer functionality. Rather, the specification states that the goal of the patent is social or behavioral in nature. It states that prior art battle games incentivized experienced players to form groups together, which discouraged novices from joining or continuing with the game." Pet. Reply 7 (citing Ex. 1001, 1:53–60). According to Petitioner, Patent Owner's expert, Mr. Crane, "described this 'barrier' as a social or behavioral problem: '[T]here are barriers in these social games to newbies. They don't get to be invited by the cool kids. They don't get invited to guilds with more experienced players.'" *Id.* (citing Ex. 1011, 30:7–10).

We agree with Petitioner that the solution identified by Patent Owner—solving "the challenge of increasing novice players' motivation to participate in the game by reducing technical barriers to accessibility"—is not a solution necessarily rooted in computer technology to overcome a problem specifically arising in computer networks. PO Sur-Reply 13. As

asserted by Petitioner, "'[m]otivation' is not a technical problem; [it's] a social, business, or mental problem." Pet. Reply 8 (citing Dec. 12). Rather, as "PO's expert admits battle games, such as Dungeons & Dragons, [which suffer from the same social or behavioral problems] existed in the non-digital world as board games and used mechanics, such as comparing parameters of player-characters to simulate a battle." *Id.* at 8–9 (citing Ex. 1011, 38:4–22). Accordingly, we are persuaded that the claims at issue in this proceeding are not similar to those found to be patent eligible in *DDR Holdings*.

Regarding *McRO*, we agree with Petitioner that "[i]n *McRO*, the Federal Circuit upheld claims directed to three-dimensional computer animation using a specific set of rules." Pet. Reply 9 (citing *McRO*, 837 F.3d at 1315–16). Accordingly, we compare the claims at issue in this proceeding with those in *McRO* with this in mind. Petitioner asserts that "[t]he claims survived because they did not 'simply use a computer as a tool to automate conventional activity,' but rather claimed a specific 'technological improvement'—complete with detailed rules—to 'achieve an improved technological result in conventional industry practice.'" *Id.* (citing *McRO*, 837 F.3d at 1313, 1316).

Patent Owner disagrees, contending:

> Just as a parameter is stored for each character within a group, the claim in *McR*[*O*] stores data corresponding to the rules and data to which those rules will be applied. Just as claim 1 requires determining the difference in parameter between successively attacking characters and the number of attacks in a predetermined time, the claim in *McR*[*O*] generates intermediate and final output morph weight sets. And just as claim 1 recites controlling an effect of attack by a group based on this

> information, the claim in *McR*[*O*] applies the generated weight sets to a sequence of animated characters.

PO Sur-Reply 14. Even if Patent Owner's characterization of these limitations is correct that is not dispositive because, for the reasons discussed above, the claims at issue in this proceeding do not claim a technological improvement. Accordingly, we are persuaded that the claims at issue in this proceeding are not similar to those found to be patent eligible in *McRO*.

In addition, Patent Owner contends that the claims of the '744 patent are analogous to eligible examples in the Guidance. PO Sur-Reply 15. Patent Owner asserts that "[t]he 'initializing' step of Example 38 is analogous" to "storing, by a server device, for each of a plurality of characters, a parameter that serves as an indicator for developing the battle game" as recited in claim 1 because "the model, stored in the computer, is described according to its contents just as the claimed parameter is stored for each of a plurality of characters, and serves an indicator for developing the battle game." *Id.* at 15, 28; Ex. 1001, 7:56–58. Patent Owner asserts further that "[t]he 'generating' step [in Example 38] provides a random value based on certain inputs, just as" the claim 1 limitation "according to a difference in the parameter between two characters belonging to the same group and successive in attack order" because this limitation "generates a difference in parameter between two characters that must belong to the same group and be successive in attack order." PO Sur-Reply 15, 28; Ex. 1001, 7:60–62. In addition, Patent Owner asserts that "the 'simulating' step [in Example 38] generates a digital representation of the circuit based on the random value and circuit element locations just as [the] claim [1]" limitations, i.e., "controlling, by a processor of the server device, an effect of attack by a

group," "to a number of attacks within a predetermined time by any characters in the group," and "control the effect of attack by a group based on the difference and the number of attacks in a predetermined time." PO Sur-Reply 15, 28; Ex. 1001, 7:59–60, 7:62–64. Patent Owner concludes this comparison by asserting "that claim 1 does not recite any of the judicial exceptions described in the revised guidance. Just like claim 1, the example states that '[w]hile some of the limitations may be based on mathematical concepts, the mathematical concepts are not recited in the claims'" and that "[c]laim 1, for the same reasons, is also analogous to Example 37 (claim 2)." PO Sur-Reply 15 (citing Ex. 2008, 7).

Even if Patent Owner's assertions that the limitations of claim 1 are analogous to the identified limitations in Examples 37 and 38 of the Guidance and do not recite mathematical concepts, this is not dispositive on the issue of whether claim 1 is directed to patent-ineligible subject matter. The Guidance identifies "following rules" such as "rules for conducting a wagering game" as one method of organizing human activity that is patent ineligible. Guidance, 84 Fed. Reg. at 52 (citing *In re Smith*, 815 F.3d at 818). The preamble to claim 1 recites "[a] method for providing a battle game to each of a plurality of client devices via a network." Ex. 1001, 7:54–55. The preamble of Example 37 recites "[a] method of rearranging icons on a graphical user interface (GUI) of a computer system" and the preamble of Example 38 recites "[a] method for providing a digital computer simulation of an analog audio mixer." USPTO, Subject Matter Eligibility Examples: Abstract Ideas 1 (Jan. 7, 2019), https://www.uspto.gov/sites/default/files/documents/101_examples_37to42_20190107.pdf. Neither of the example claims has anything to do with a

method of providing a battle game or following rules, and thus, cannot demonstrate by analogy that claim 1 is patent eligible.

Neither Petitioner nor Patent Owner separately addresses whether any of the dependent claims recite patent-ineligible subject matter. Pet. Reply 3–11; PO Sur-Reply 8–17. The panel has reviewed the dependent claims and determined that they do not recite additional limitations that change our analysis. Accordingly, our determination with respect to the independent claims to be determinative for the dependent claims as well.

For the reasons discussed above, we determine that claims 1–12 recite following rules (specifically rules for a battle game), which is a certain method of organizing human activity that has been found to be abstract.

c. 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 exception(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.

We identify the following recitations in claim 1 as directed to additional elements:

> A method for providing a battle game to each of a plurality of client devices via a network, comprising:

> storing, by a server device, for each of a plurality of characters, a parameter that serves as an indicator for developing the battle game . . . .

Ex. 1001, 7:54–58. From these recitations, we determine that the additional elements are computer components and software, and the step of storing character parameters. We discuss the dependent claims following our discussion of claim 1.

Petitioner does not specifically address in its Reply whether the abstract idea is integrated into a practical application. *See generally* Pet. Reply. During oral arguments, Petitioner asserts that "the question here is whether the additional elements, beyond sort of the abstract idea reflect an improvement in the functioning of a computer or an improvement to other technology or technical field." Tr. 10:5–8. According to Petitioner, there is no improvement to technology or a technical field in the challenged claims. *See id.* at 10:9–10. Rather, "if you look at the specification, it talks about providing motivation for a player who is new to be -- to play, because good players don't want to play with new players on a team because they just aren't -- you know, they aren't good enough to help the team." *Id.* at 10:11–15. Petitioner states that "[t]here's nothing here that improves the functioning of a computer, it just changes the rules of the game to make it so that the newbies can play with the cool kids." *Id.* at 10:25–11:2.

Patent Owner disagrees, effectively asserting that the additional elements "integrate[] the recited judicial exception into a practical application." Guidance, 84 Fed. Reg. at 54. Noting that "Mr. Crane confirms that the '744 patent describes and claims inventive gameplay mechanics that improve the accessibility of online battle games for novice players," Patent Owner contends that "[u]nder the revised guidance, this

satisfies 'Prong Two,' which asks whether 'an element reflects an improvement in the functioning of a computer, or an improvement to other technology or technical field.'" PO Sur-Reply 7 (citing Ex. 2002 ¶¶ 21–31; Ex. 2006, 19). Patent Owner explains that "the inventive mechanics impose limits to this alleged abstract idea by applying it to the claimed rules." *Id.* (citing Ex. 2002 ¶ 27).

The '744 patent is directed to improvements that solve the problem of insufficient motivation for inexperienced players to participate in a group with experienced players in a video battle game. *See* Ex. 1001, 1:53–63. In other words, the claims at issue are directed to improvements in the rules of a video battle game. These improvements are implemented by

> storing, for each character, a parameter which serves as an indicator for developing the battle game between the groups: calculat[ing] a difference in the parameter between two characters belonging to the same group and successive in attack order; and perform[ing] presentation processing of increasing an effect of attack by the group according to the difference in the parameter.

Ex. 1001, 2:1–8. These improvements are not similar to the improvements in technology claimed in *Core Wireless*, *DDR Holdings*, or *McRO*, for the reasons discussed above in Part II.B.2.a.

We are also persuaded that the ineligible subject matter is not integrated into a practical application 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 9–10. Mr. Crane's testimony highlights this reasoning. Ex. 2002 ¶¶ 22–31. Specifically, in his Declaration, Mr. Crane states that "[t]he 'parameter' in the claims is a numeric representation of the player's

proficiency . . . . With a player's proficiency represented as a numerical value, the outcome of a battle can be affected by the difference in those numerical values." *Id.* ¶ 28. According to Mr. Crane, "[t]he ['744] Patent describes the implementation of this parameter in multiplayer battle games as an improvement over what was known in the art." *Id.* ¶ 29. However, the claimed "parameters" cannot by themselves integrate the claims into a practical application of the judicial exception, because the "parameters" are part of the judicial exception.

For these reasons, we determine that claims 1–12 do not integrate the judicial exception into a practical application.

d. Whether Claims 1–12 Provide An Inventive Concept

We conclude our analysis by considering whether additional elements in the claims provide an inventive concept. Guidance, 84 Fed. Reg. at 56. Petitioner asserts that "[t]he specification of the '744 patent admits that the claims recite only conventional computer equipment performing ordinary tasks. Both the client and server devices may comprise any 'general-purpose communication terminal device.'" Pet. Reply 11 (citing Ex. 1001, 2:44–48). According to Petitioner, "[t]hese fundamental computer tools are non-inventive under *Alice* step two." *Id.* (citing *Mortg. Grader Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324–25 (Fed. Cir. 2016)). Petitioner asserts further that "[t]he steps performed by the generic hardware also are routine." *Id.* at 12 (citing Ex. 1001, 1:21–49). Specifically, Petitioner asserts:

> The "storing" (claim 1 and 9) and "receiving" (claim 5) steps are conventional data transmission steps, insufficient to confer an inventive concept. *See, e.g.*, *Smartflash LLC v. Apple Inc.*, 680 F. App'x 977, 983 (Fed. Cir. 2017). Likewise, "controlling . . .

> an effect of attack by a group, according to a difference in the parameter between two characters . . . and to a number of attacks within a predetermined time by any characters in the group," or "displaying" that effect, comprises nothing more than the non-inventive performance of a computer function based on collected game data. *See Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350, 1355 (Fed. Cir. 2016).

Id.

Patent Owner disagrees, responding:

> [T]he use of a parameter for each character in a group serving as an indicator for developing the game in combination with the number of attacks in a predetermined time to control an effect of attack by a group as described and claimed is "a new source or type" of information.

PO Sur-Reply 18.

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. Guidance, 84 Fed. Reg. at 56 ("For example the claim may recite additional elements that render the claim patent eligible even though a judicial exception is recited in a separate claim element."). 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.

For these reasons, we determine that claims 1–12 do not provide an inventive concept.

e. Conclusion re Subject Matter Eligibility

For the reasons set forth in Parts II.B.2.a–d, we are persuaded that Petitioner has met its burden of showing that claims 1–12 are not subject matter eligible.

C. Claims 1–12 as Unpatentable Under 35 U.S.C. § 112(a)

Petitioner contends that claims 1–12 are unpatentable for lacking written description support under 35 U.S.C. § 112(a). Pet. 51–62 (citing Ex. 1001); Pet. Reply 19–24 (citing Exs. 1001, 2002, 1011). Patent Owner disagrees. PO Resp. 55–70 (citing Exs. 1001, 1002, 2002); PO Sur-Reply 23–24 (citing Exs. 1011, 2002). Petitioner challenges three different limitations. Petitioner does not provide testimonial support for these challenges. 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) (citation omitted).

2. Analysis

i. First Contested Limitations

a. First Contention

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

> controlling, by a processor of the server device, an effect of attack by a group, according to a difference in the parameter between two characters belonging to the same group and successive in attack order and to a number of attacks within a predetermined time by any characters in the group.

Pet. 53. According to Petitioner, "each time the specification describes any impact on the effect of the attack, it is described as an 'increase.'" Pet. 54 (citing Ex. 1001, 2:6–7, 2:11–12, 5:56–57, 6:54–55, 5:62–66, 5:67–6:4) (parenthetical information omitted). Petitioner asserts further that "[t]he sole use in the specification of any variant of the term 'control' outside of the claims is to add that the effect may be impacted by the number of successive attacks in addition to the difference in parameter" and that "nowhere does the specification explain what such 'control' entails, nor any examples aside from increasing the effect." *Id.* at 55. In addition, Petitioner contends that "[e]ven as to 'increasing' the effect (e.g., as recited in claims 2, 3, 6, 7, 10, and 11), the specification does not explain the correlation between the difference in the parameter values between the characters, or the number of successive attacks, and the 'increase.'" *Id.*

Patent Owner disagrees, responding that "the claim language in claims 1 and 9 with which Petitioner takes issue was present in the originally filed application that issued as the '744 patent." PO Resp. 59. Patent Owner

contends that "the specification of the '744 patent provides support for controlling the effect of a combo as challenged by Petitioner and directly contradicts Petitioner's allegations." *Id.* at 61 (citing Ex. 1002, 273–76). According to Patent Owner, the '744 patent "discloses that various values may be calculated during the battle game: a difference in player-character parameters, a number of attacks, and the difference in timing between attacks." *Id.* at 64 (citing Ex. 1001, 6:35–46.) Patent Owner contends further that "[t]he '744 patent also provides examples of how these different values may impact the effect of a combo, for example, a combo effect may be increased as the difference in player-character parameters increases." *Id.* (citing Ex. 1001, 5:67–6:4). Patent Owner also directs our attention to Figures 5 and 6. *Id.* at 62, 64.

Petitioner responds that "[o]riginal claims may lack written description when the claims define the invention in functional language specifying a desired result but the specification does not sufficiently describe how the function is performed or the result is achieved." Pet. Reply 19–20 (citing *Vasudevan Software, Inc. v. MicroStrategy, Inc.*, 782 F.3d 671, 681–83 (Fed. Cir. 2015)). Petitioner asserts that "[t]his is the case with the present claims, which recite the purely functional language of 'controlling . . . an effect of an attack,' without ever providing disclosure of how that function is performed." *Id.* According to Petitioner, "even for the narrower 'increasing,' the specification does not explain how the effect of the attack is increased, just that it is increased 'more' when the parameter difference is 'larger.' Ex. 1001, 5:62-6:4. But the specification does not explain how the effect is greater." *Id.*

Petitioner responds further that "the written description analysis calls for a comparison between the scope of the claim and the scope of the description." Pet. Reply 20 (citing *Reiffin v. Microsoft Corp.*, 214 F.3d 1342, 1345 (Fed. Cir. 2000)). Petitioner asserts that "[t]he scope of the '744 claims is 'controlling . . . an effect of an attack.'" *Id.* at 20–21. According to Petitioner, Patent Owner's expert, "[w]hile admitting '[e]ach of the[] examples disclosed in the Specification discuss affecting the outcome of an attack *in the form of an increase*,' . . . argues a POSA would know that 'a negative increase or no change' also are possible forms of control." *Id.* at 21 (citing Ex. 2002 ¶¶ 35, 47). Thus, Petitioner surmises "[Patent Owner] admits that the scope of the claims and the scope of the description do not align; the broader scope of the claims is not supported by the narrower disclosure in the specification of 'increasing' an effect of an attack." *Id.*

Patent Owner replies that "a written description analysis does *not* call for a comparison between the scope of the claim and the scope of the description." PO Sur-Reply 23. Patent Owner contends that "contrary to Petitioner's assertion: 'The purpose of this provision is to ensure that the scope of the right to exclude, as set forth in the claims, does not overreach the scope of the inventor's contribution to the field of art as described in the patent specification.'" *Id.* (citing *Reiffen*, 214 F.3d at 1345). Patent Owner contends further that "[t]his dicta is simply a restatement of the analysis for written description, namely 'whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.'" *Id.* at 23–34 (citing *Ariad Pharms., Inc.*, 598 F.3d at 1351. According to Patent Owner, "[n]either of these cases held that original claims as filed lacked written

description support. As the Board noted at Institution, original claims will often satisfy the requirement." *Id.* at 24 (citing *Mentor Graphics Corp. v. EVE-USA, Inc.*, 851 F.3d 1275, 1297 (Fed. Cir. 2017)).

We agree with Patent Owner. The Specification states, for example:

> If the parameter 50 is set to indicate the degree of proficiency in the battle game, . . . the effect of successive attacks can be increased by successively making an attack by a character operated by a player with a high degree of proficiency in the battle game and an attack by a character operated by a player with a low degree of proficiency in the battle game.

Ex. 1001, 6:5–11. As another example, the Specification states:

> If the parameter 50 is set to indicate the reward, for example, the effect of successive attacks can be increased by successively making an attack by a character operated by a player with a high acquired reward and an attack by a character operated by a player with a low acquired reward.

Id. at 6:19–24. Both of these paragraphs describe a way in which the effect of an attack is increased. Thus, we are not persuaded that Petitioner has shown that these limitations lack written description support.

b. Second Contention

For this same set of limitations, Petitioner asserts further that "the specification does not describe which of the exemplary parameters is the parameter 'stored' or used for each character, nor does it explain how the effect of the attack is controlled 'according to' the difference in that parameter between the characters." Pet. 57. As to the former, Petitioner's argument pertains to the breadth of the language at issue, not possession of that subject matter. As to the latter, the paragraphs quoted above sufficiently describe how the effect of the attack is controlled according to a difference

in a parameter. Thus, we are not persuaded that Petitioner has shown that these limitations lack written description support.

ii. Second Contested Limitations

Regarding claims 5–8, Petitioner asserts that "the specification of the '744 patent fails to provide adequate written description of information necessary for a battle game, and thus does not put the public in possession of what the applicant claimed as the invention." Pet. 60. Specifically, for claim 5 Petitioner asserts that "the specification never discusses what information is necessary for a battle game. The specification discloses two types of information related to battle games: 'history information' and 'authentication information.'" *Id.* at 60–61 (citing Ex. 1001, 5:1–8). Petitioner asserts further that "[t]he specification also discusses elements of typical battle games such as 'skills,' 'attack values,' 'cards,' 'groups,' and 'guilds,' but never discloses whether these elements or the information comprising the elements are 'necessary' for a battle games" and that "[p]arameter values related to time, rewards acquired, and 'level' are also disclosed. However, none are described as necessary for a battle game." *Id.* at 61 (citing Ex. 1001, 4:59–67, 3:43–4:2).

Petitioner's assertions, even if true, do not demonstrate that the '744 patent lacks adequate written description support because they do not demonstrate lack of possession of the claimed subject matter. Although the Specification does not explicitly state that certain elements are "necessary" for a battle game, the Specification adequately conveys possession of those elements. For example, these elements are shown in Figure 4 reproduced below:

FIG. 4

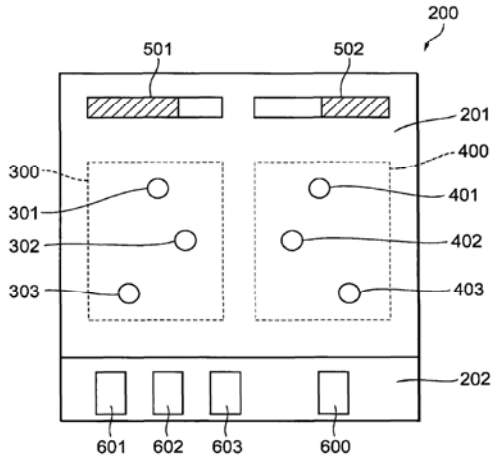


Figure 4 "is an explanatory diagram showing an example of a game screen according to the embodiment." Ex. 1001, 2:27–28. Referring to this Figure, the Specification describes the elements of the battle game in detail. *Id.* at 5:20–53. Accordingly, we are not persuaded that Petitioner has shown that these limitations lack written description support.

iii. Third Contested Limitations

Regarding claims 5–8, Petitioner further asserts that

> the specification of the '744 patent fails to provide adequate written description of "displaying, by the processor, on a display device, an effect of attack by a group, wherein the effect is controlled in accordance with a difference in a parameter between two characters belonging to the same group and successive in attack order and with a number of attacks within a predetermined time by any characters in the group," and thus does not put the public in possession of what the applicant claimed as the invention.

Pet. 62.

Patent Owner responds by directing our attention to Figure 4 of the '744 patent and the following description in the Specification:

> Each player turns over the plurality of cards 601, 602, and 603 from the deck 600, and attacks the opponent character according to the combination of skills, attack values, specific items, defense values, and the like shown in the cards 601, 602, and 603. Damage inflicted on the opponent character and damage inflicted on the character of the player are then calculated. A gauge 501 displays the number of attacks successively made by the characters 301, 302, and 303 belonging to the group 300 on the opponent characters 401, 402, and 403. Likewise, a gauge 502 displays the number of attacks successively made by the characters 401, 402, and 403 belonging to the group 400 on the opponent characters 301, 302, and 303. The number of successive attacks is referred to as "combo count", and the gauges 501 and 502 displaying the combo counts are each referred to as "combo gauge".

PO Resp. 69–70 (quoting Ex. 1001, 5:38–53). We agree with Patent Owner that Petitioner does not adequately demonstrate that this description is insufficient to convey to one skilled in the art that Patent Owner had possession of the contested subject matter.

3. Conclusion Regarding 35 U.S.C. § 112(a)

For the reasons discussed above, we are not persuaded that Petitioner has met its burden of showing that claims 1–12 lack written description support.

D. Claims 1–12 as Indefinite Under 35 U.S.C. § 112(b)

Petitioner asserts that, "[t]he language of the claims of the '744 patent is such that a person of ordinary skill in the art could not interpret the metes and bounds of the claim so as to understand how to avoid infringement, thus the claims are indefinite." Pet. 65. In support of this assertion, Petitioner alleges that "the claims of the '744 patent lack sufficient written description support in the specification. As a result, they omit matter essential to the

claims and also are indefinite." *Id.* Petitioner does not provide testimonial support for this challenge.

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 Instruments, Inc.*, 134 S. Ct. 2120, 2124 (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 1–12 are not indefinite under the *Nautilus* standard and the *Packard* standard.

2. Analysis

i. Claims 1 and 9

Petitioner asserts that claims 1 and 9 are indefinite because the limitation

> "controlling . . . an effect of an attack by a group, according to a difference in the parameter between two characters belonging to the same group and successive in attack order and to a number of attacks within a predetermined time by any characters in the group" [as recited in] claims 1 and 9

is unclear. Pet. 65 (quoting Ex. 1001, 7:59–64).[9] Petitioner contends that "[i]t is unclear how the controlling could occur without the parameter calculation, nor what such controlling would entail. Nowhere does the specification explain how the system controls increases the effect of the attack of the group, nor *how* the difference in parameter impacts that control." *Id.* at 66. Petitioner contends further that "[t]he specification provides four different parameter examples, yet no information as to which one would be used, or how more than one would be used." *Id.* In addition, Petitioner contends that "no numeric examples are provided for the number [of] successive attacks that would result in any impact to the attack effect. The only indication of size at all is that the effect of the attack is 'increased' when the number of successive attacks is 'larger.'" *Id.*

Patent Owner responds that "[t]he '744 patent . . . explains and provides an example of how the effect of an attack by a group may be controlled according to several variables including the difference in player parameters, the timing of successive attacks, and the number of attacks." PO Resp. 75. According to Patent Owner, "[a] person of ordinary skill in the art would understand how the effect of an attack by a group, i.e. a combo, would be controlled based upon [the] information" discussed in Part II.C.1.a above (namely column 5, line 56 to column 6, line 4 of the '744 patent). *Id.* (citing Ex. 2002 ¶¶ 46–48). Patent Owner also notes that "§ 112(b) does not require any of the detail Petitioner characterizes as 'absent' for the claims to still be definite." *Id.* at 75 (citing *Rambus Inc. v. Infineon Techs. Ag*, 318 F.3d 1081, 1093 (Fed. Cir. 2003) ("[T]he claims need not recite every

[9] We note that although claim 9 contains similar language, it does not recite this exact language. Ex. 1001, 8:49–54.

component necessary to enable operation of a working device.")); *Smith & Nephew, Inc. v. Ethicon, Inc.*, 276 F.3d 1304, 1311 (Fed. Cir. 2001) ("A claim is not defective when it states fewer than all of the steps that may be performed in practice of an invention.").

We agree with Patent Owner that a person of ordinary skill in the art, when considering the aforementioned portion of '744 patent and other portions quoted in Patent Owner's Response (namely column 6, lines 35–46), would have understood the contested limitations. *See* Ex. 2002 ¶¶ 46–48. Petitioner has not provided sufficient countervailing evidence that one of ordinary skill would not have been able to ascertain the metes and bounds of these limitations with reasonable certainty after reading the portions of the '744 patent quoted by Patent Owner. PO Resp. 74–75. We further note, that Petitioner's arguments pertain to breadth rather than definiteness of claims 1 and 9. "Merely claiming broadly does not . . . prevent the public from understanding the scope of the patent." *Ultimax Cement Mfg. Corp. v. CTS Cement Mfg. Corp.*, 587 F.3d 1339, 1352 (Fed. Cir. 2009) (citing *In re Gardner*, 427 F.2d 786, 788 (CCPA 1970) ("Breadth is not indefiniteness.")).

ii. Claim 5

Petitioner asserts that "[w]ith respect to the absence of disclosure regarding the limitation 'information necessary for a battle game,' claim 5 is unclear." Pet. 67. According to Petitioner, "[t]he specification does not discuss what information is 'necessary' for a battle game. Various values are discussed, as well as the parameters, but none is designated as 'necessary.'" *Id.* Petitioner concludes that "[t]hus, the reader is left to guess

what exactly is the 'information' necessary for the battle game, which renders the claims indefinite." *Id.*

Patent Owner responds that "the meaning of the term 'information necessary for a battle game' in claim 5 is understandable from the language of the claims and the disclosure of the specification." PO Sur-Reply 69 (citing Ex. 2002 ¶ 49). Patent Owner explains that "[a]ccording to the '744 patent, '[t]he online game service is provided when the server device 10 returns a response to a request from the client device 30.'" *Id.* (citing Ex. 1001, 2:56–58). Patent Owner explains further that "[i]n response to a request, the client device may receive 'computer program 60 [that] is an application program for connecting to the server device 10 and receiving the battle game service. The application program can be distributed from the server device 10 via the network 20.'" *Id.* at 69–70 (citing Ex. 1001, 4:26–30). Patent Owner concludes that "based on the structure of claim 5, 'information necessary for a battle game' would include the information described in the next clause to propagate the corresponding information in the display field in the client device." *Id.* at 70 (citing Ex. 2002 ¶ 49).

We agree with Patent Owner that a person of ordinary skill in the art, when considering the aforementioned portions of '744 patent, would have understood the contested limitations. *See* Ex. 1001, 2:56–58, 4:26–30; Ex. 2002 ¶ 49. Petitioner has not provided sufficient countervailing evidence that one of ordinary skill would not have been able to ascertain what constitutes "information necessary for a battle game" with reasonable certainty after reading the portions of the '744 patent noted by Patent Owner.

In addition, Petitioner asserts that "[w]ith respect to the absence of disclosure regarding the limitation 'displaying . . . an effect of attack by a

group,' claim 5 is unclear." Pet. 67. Petitioner contends that "[t]he specification provides very little disclosure about the displaying done by the display device." *Id.* Noting that "[t]he description is limited to displaying the characters in the event field who *will participate* in a battle, gauges showing the number of successive attacks by each group, and the characters' cards, attribute values, and method," Petitioner alleges that "the specification provides *no description whatsoever* of displaying 'an effect of attack,' rendering the claims indefinite." *Id.* at 67–68.

Patent Owner responds that "'displaying . . . an effect of an attack by a group' as recited in claim 5 is definite." PO Resp. 77. In support, Patent Owner quotes the following portion of the '744 patent:

> A gauge 501 displays the number of attacks successively made by the characters 301, 302, and 303 belonging to the group 300 on the opponent characters 401, 402, and 403. Likewise, a gauge 502 displays the number of attacks successively made by the characters 401, 402, and 403 belonging to the group 400 on the opponent characters 301, 302, and 303. The number of successive attacks is referred to as "combo count", and the gauges 501 and 502 displaying the combo counts are each referred to as "combo gauge".

Id. (quoting Ex. 1001, 5:44–53). According to Patent Owner, "the '744 patent describes exemplary graphical user interface elements to perform this function and a person of ordinary skill in the art would understand the meaning of this term." *Id.* (citing Ex. 2002 ¶¶ 50–51).

We agree with Patent Owner that a person of ordinary skill in the art, when considering the aforementioned portion of '744 patent would have understood the contested limitations. *See* Ex. 1001, 5:44–53; Ex. 2002 ¶¶ 50–51. Petitioner has not provided sufficient countervailing evidence that one of ordinary skill would not have been able to ascertain what constitutes

"an effect of attack" with reasonable certainty after reading the portions of the '744 patent noted by Patent Owner.

iii. Claims 2–4, 6–8, and 10–12

Regarding all of the dependent claims, Petitioner asserts that "the dependent claims by way of their dependency also recite the limitations that are indefinite." Pet. 67. Regarding claims 6–8 specifically, Petitioner asserts that "[t]he dependent claims 6-8 by way of their dependency on claim 5 also recite the limitations that are indefinite." Pet. 68.

Regarding this challenge, Patent Owner does not address explicitly any of the dependent claims. *See* PO Resp. 71–80.

3. Conclusion Regarding 35 U.S.C. § 112(b)

For these reasons discussed above, we are not persuaded that Petitioner has met its burden of showing that independent claims 1, 5, and 9 are indefinite under 35 U.S.C. § 112(b).[10] For the same reasons, we are not persuaded that Petitioner has met its burden of showing that dependent claims 2–4, 6–8, and 10–12 are indefinite.

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 1–12 of the '744 patent are unpatentable on at least one ground set forth in the Petition.

F. Exercise of Our Discretion under 35 U.S.C. § 325(d)

Patent Owner "requests that the Board exercise its discretion under § 325(d) and deny the petition because substantially the same argument

[10] We note that Petitioner does not reply to any of Patent Owner's specific arguments regarding indefiniteness in its Reply. *See* Pet. Reply 24–25.

under § 101 was considered—and eventually rejected—by the examiner during prosecution of the parent application of the '744 patent." PO Resp. 12. We previously refused at the institution stage to exercise our discretion under 35 U.S.C. § 325(d). *See* Dec. 23. Having proceeded with trial, we will not now exercise that discretion where the parties have expended substantial time and resources to introduce additional argument and evidence that neither party asserts were ever considered during prosecution of the '744 patent, in particular, the arguments consistent with the Guidance and any consideration of the Federal Circuit's *Smith* and *Guldenaar* decisions.

III. CONTINGENT MOTION TO AMEND

Patent Owner requests that "the Board grant th[e] Contingent Motion" "should the Board determine that any of the original claims of the '744 patent are unpatentable under § 101." PO MTA 2. Specifically, Patent Owner requests that claims 1–12 be replaced with claims 13–24. *See id.* at 1–2. The proposed substitute claims read as follows:

> 13. A method for providing a battle game to each of a plurality of client devices via a network, comprising:
>
> storing, by a server device, for each of a plurality of characters, a parameter that serves as an indicator for developing the battle game; [and]
>
> <u>determining a difference in the parameter between two characters belonging to a group and successive in attack order by</u>

subtracting the parameter of a first character from the parameter of a second character; and

controlling, by a processor of the server device, an effect of attack by [a] the group, according to:

[a] the difference; [in the parameter between two characters belonging to the same group and successive in attack order and to]

a number of attacks within a predetermined time by any characters in the group; and

a plurality of attack values, each of the plurality of attack values assigned to each attack of the number of attacks within the predetermined time by any characters in the group,

wherein at least one of the plurality of attack values depends at least in part in the difference and/or the number of attacks.

14. The method according to claim 13, [further comprising performing, by the processor of the server device, presentation processing of increasing the effect of attack by the group more when the difference in the parameter between the two characters successive in attack order is larger.] wherein controlling the effect of attack by the group further comprises, by the processor of the server device, changing at least one of the plurality of attack values by one of:

adding to the attack value either the difference or a value corresponding to the difference, or

multiplying the attack value by the difference or the value corresponding to the difference.

15. The method according to claim 13, [further comprising performing, by the processor of the server device, presentation processing of increasing the effect of attack by the group more when the number of successive attacks by a plurality of characters belonging to the same group is larger.] wherein controlling the effect of attack by the group further comprises, by the processor of the server device, changing at least one of the plurality of attack values by one of:

adding to the attack value either the number of successive attacks within the predetermined time or a value corresponding

to the number of successive attacks within the predetermined time, or

multiplying the attack value by the number of successive attacks within the predetermined time or the value corresponding to the number of successive attacks within the predetermined time.

16. The method according to claim 13, wherein the parameter indicates any of a degree of proficiency in the battle game, a reward acquired in the battle game, and a time elapsed from a date of participation in the battle game.

17. A method executed in a client device operated by a player, the client device being connectable to a server device via a communication line, the method comprising:

receiving, by a processor of the client device, information necessary for a battle game from the server device, including a difference in a parameter between two characters belonging to a group and successive in attack order that is determined by subtracting the parameter of a first character from the parameter of a second character; and

displaying, by the processor, on a display device, an effect of attack by [a] the group, wherein the effect is controlled in accordance with:

[a] the difference; [in a parameter between two characters belonging to the same group and successive in attack order and with]

a number of attacks within a predetermined time by any characters in the group; and

a plurality of attack values, each of the plurality of attack values assigned to each attack of the number of attacks within the predetermined time by any characters in the group,

wherein the at least one of the plurality of the attack values depends at least in part on the difference and/or the number of attacks.

18. The method according to claim [5] 17, [wherein displaying, by the processor, comprises displaying presentation processing of increasing the effect of attack by the group more when the

difference in the parameter between the two characters successive in attack order is larger.] wherein displaying the effect of the attack by the group further comprises, changing at least one of the plurality of attack values by one of:

adding to the attack value either the difference or a value corresponding to the difference, or

multiplying the attack value by the difference or the value corresponding to the difference.

19. The method according to claim [5] 17, [wherein displaying, by the processor, comprises displaying presentation processing of increasing the effect of attack by the group more when the number of successive attacks by a plurality of characters belonging to the same group is larger.] wherein displaying the effect of attack by the group further comprises changing at least one of the plurality of attack values by one of:

adding to the attack value either the number of successive attacks within the predetermined time or a value corresponding to the number of successive attacks within the predetermined time, or

multiplying the attack value by the number of successive attacks within the predetermined time or the value corresponding to the number of successive attacks within the predetermined time.

20. The method according to claim [5] 17, wherein the parameter indicates any of a degree of proficiency in the battle game, a reward acquired in the battle game, and a time elapsed from a date of participation in the battle game.

21. A system comprising: a client device operated by a player; and a server device for providing a battle game to each client device via a network, the server device comprising:

a processor; and

a non-transitory computer-readable recording medium operative under command of the processor to store, for each character, a parameter that serves as an indicator for developing the battle game, and

operative to store a difference in the parameter between two characters belonging to a group and successive in attack

order, determined by subtracting the parameter of a first character from the parameter of a second character; and[;]

wherein the processor is operative to control an effect of attack by [a] the group, according to:

[a] the difference; [in the parameter between two characters belonging to the same group and successive in attack order and to] the number of attacks within a predetermined time by any characters in the group, and

a plurality of attack values, each of the plurality of attack values assigned to each attack of the number of attacks within the predetermined time by any characters in the group,

wherein at least one of the plurality of attack values depends at least in part on the difference and/or the number of attacks.

22. The system according to claim [9] 21, wherein the processor is further operative to [control presentation processing of increasing the effect of attack by the group more when the difference in the parameter between the two characters successive in attack order is larger.] control the effect of attack by the group by changing at least one of the plurality of attack values by one of:

adding to the attack value either the difference or a value corresponding to the difference, or

multiplying the attack value by the difference or the value corresponding to the difference.

23. The system according to claim [9] 21, wherein the processor is further operative to [control presentation processing of increasing the effect of attack by the group more when the number of successive attacks by a plurality of characters belonging to the same group is larger is performed by the processor of the server device.] control the effect of attack by the group by changing at least one of the plurality of attack values by one of:

adding to the attack value either the number of successive attacks within the predetermined time or a value corresponding

> to the number of successive attacks within the predetermined time, or
>
> multiplying the attack value by the number of successive attacks within the predetermined time or the value corresponding to the number of successive attacks within the predetermined time.
>
> 24. The system according to claim [9] 21, wherein the parameter indicates any of a degree of proficiency in the battle game, a reward acquired in the battle game, and a time elapsed from a date of participation in the battle game.

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.*, IPR2018-01129, Paper 15 at 4 (PTAB Feb. 25, 2019).

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. 37 C.F.R. § 42.121(a)(3)." *Lectrosonics* at 4. The Petition challenges 12 claims. At most, the Motion to Amend proposes twelve (12) claims. Thus, 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* at 5. To that end, the Motion to Amend proposes adding the following limitations to each of independent claims 1, 5, and 9:

> a difference in the parameter between two characters belonging to a group and successive in attack order by subtracting the

> parameter of a first character from the parameter of a second character;
>
> a plurality of attack values, each of the plurality of attack values assigned to each attack of the number of attacks within the predetermined time by any characters in the group; and
>
> wherein at least one of the plurality of attack values depends at least in part on the difference and/or the number of attacks.

PO MTA 27–29. Patent Owner asserts that the Motion to Amend "directly responds to Petitioner's allegations that the challenged original claims do not sufficiently recite how to perform the claimed functions by introducing additional detail regarding the algorithm in all of the independent claims." PO MTA 1. Petitioner responds that "PO merely recycles most of its arguments from the POR, and adds that the proposed claims recite a 'more detailed algorithm' because they have clarified that the 'difference' is that subtraction and attack values are changed by addition or multiplication." Pet. Opp. to MTA 6. Petitioner asserts further that "PO's reliance on arguments nearly identical to those of the POR shows that the proposed claims *are not patentably distinct* from the original claims, and thus are invalid for similar reasons as the issued claims." *Id.* Although Patent Owner does not explicitly address Petitioner's latter argument, Patent Owner's explanation in the Motion to Amend is sufficient to show 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. 35 U.S.C. § 316(d)(3); 37 C.F.R. § 41.121(a)(2)(ii)." *Lectrosonics* at 6. Petitioner asserts that "Patent

Owner's amendments in substitute claims 14, 18, and 22 materially broaden the scope of these claims relative to claims 2, 6, and 10, and claims 15, 19, and 23 materially broaden the scope of these claims relative to claims 3, 7, and 11." Pet. Opp. to MTA 5. In support of this assertion, Petitioner explains that "[b]oth sets of amendments *remove* 'increasing the effect' of the attack more when the parameter difference is larger (claims 14, 18, and 22) or when the number of attacks is higher (claims 15, 19, and 23)." *Id.* According to Petitioner:

> These amendments all replace the narrower term "increasing" the effect with the broader term "changing," and make the change impact merely the attack values, not the entire "effect of the attack" of the original claims, which also broadens the scope of these claims, since the attack values are merely one of the three measures that go into controlling the effect of the attack per amended claims 13, 17, and 21.

Id. In view of this enlargement of the scope of claims 14, 15, 18, 19, 22, and 23 in violation of § 316(d)(3), Petitioner asserts that "the Motion should be denied in its entirety, as the statute provides the Board with no authority to grant in part an improper motion that seeks to enlarge the scope of the claims." *Id.* at 6 (citing 37 C.F.R. § 42.121(a)(2) (giving the Board authority to deny a motion outright where it seeks to enlarge the scope of the claims)).

Patent Owner responds that "Petitioner is wrong for two reasons . . . as Petitioner acknowledges, the substitute independent claims now recite 'three measures that go into controlling the effect of attack,' rather than the original two measures." PO Reply to Opp. to MTA 4. Thus, according to Patent Owner, these claims are "narrower because they incorporate another measure related to the effect of attack." *Id.* at 5. Patent Owner asserts further that "replacing the term 'controlling' with 'increasing' in these

substitute claims does not change their scope because the claims also recite 'adding' or 'multiplying'—an operation which will still increase the effect of attack." *Id.*

We agree with Patent Owner. In, for example, original claim 2, controlling of the effect of the attack is in accordance with two measures, whereas in substitute proposed claim 14 the controlling occurs in accordance with three measures. *Compare* Ex. 1001, 7:65–8:2, *with* PO MTA 27 (App'x A). The addition of a further measure does not broaden the scope of this claim. Rather, it further limits the controlling step. Further, by requiring that the effect of the attack be changed "by one of: *adding* to the attack value either the difference or a value corresponding to the difference, or *multiplying* the attack value by the difference or the value corresponding to the difference," the effect of the attack can only be increased. For this reason, we are persuaded that Patent Owner has demonstrated that the amendment to claim 14 does not improperly broaden the scope of this claim. As the amendments to claims 15, 18, 19, 22, and 23 are similarly restricted to changes that add another measure and increase the effect of the attack, we are also persuaded that Patent Owner has demonstrated that the amendments to these claims do not improperly broaden their scope.

Turning to the issue of written description support for the amendments, we note that Patent Owner identifies the paragraphs in the Specification of the '744 patent that provide support of the features added to the substitute claims. PO MTA 4–10; *see also* Ex. 1013. Petitioner responds that "[t]he Motion does not 'set forth written description support for each proposed substitute claim *as a whole*,' as is required." Pet. Opp. to MTA 1 (citing *Western Digital Corp v. SPEX Tech.*, IPR2018-00082, Paper

13, p. 4 (PTAB Apr. 25, 2018)). According to Petitioner, the MTA does not "set forth support for all of the *added* language." *Id.* (citing PO MTA, 5–10).

Patent Owner replies that "[t]he Motion sets forth clear written description support for the proposed substitute claims." PO Reply to Opp. to MTA 1. According to Patent Owner, "the Motion identified the correspondence between the proposed substitute claims and the original claims," "the Motion did not limit or restrict the analysis of supporting disclosure of the '769 application to individual claim limitations," and "Petitioner's arguments regarding written description ignore the fact that it is Petitioner's burden to prove unpatentability of the proposed substitute claims." *Id.* at 1–2 (citations omitted). We agree with Patent Owner, and are persuaded that Patent Owner has shown that the amendments do not introduce new subject matter.

Finally, the Motion to Amend includes a claim listing, as required by 37 C.F.R. § 42.121(b). *Lectrosonics* at 8; PO MTA 27–30 (App'x A).

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 such that Petitioner has the burden of persuasion with respect to patentability.

B. Claim Construction

Patent Owner asserts that "[t]he terms of the substitute claims do not require construction. The terms can be accorded their plain and ordinary meaning." PO MTA 10. Petitioner proposes a claim construction for the claim terms "parameter" and "controlling . . . an effect of attack by the group, according to: the difference [in the parameter], a number of attacks

within a predetermined time . . . , and a plurality of attack values." Pet. Opp. to MTA 7. As construction of these claim terms is not necessary to resolve the controversy, we see no need to construe them.

C. Patentability of Substitute Claims 13, 17, and 21

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

Patent Owner asserts that "the substitute claims are not directed to an abstract idea," and that "the limitations of the amended claims when considered individually and as an ordered combination do not recite well-understood, routine, or conventional activity." PO MTA 10–11. In support of these assertions, Patent Owner contends that "[t]he substitute claims directly resolve the only argument Petitioner raises with respect to step one of *Alice*—namely that the original claims allegedly lack any limitations as to how the purported functional results are accomplished" and that "the substitute claims recite specific algorithms for implementing the improvements described in the '744 patent in multiplayer online battle games to reduce known technological barriers that otherwise prevented new players from participating in these games." *Id.*

Although we agree with Patent Owner that the proposed substitute claims provide more detail than the original claims, we do not agree that in this instance such detail renders the proposed substitute claims patent eligible. As explained above in Part II.B.2.a, the original claims are directed to a judicial exception (namely a certain method of organizing human activity), which is patent ineligible. The proposed substitute claims do not remedy this deficiency in the original claims. Rather, the proposed substitute claims merely add more detail to the ineligible subject matter.

For example, substitute claim 13 recites "controlling . . . an effect of an attack . . . according to . . . a plurality of attack values, each of the plurality of attack values assigned to each attack of the number of attacks within the predetermined time by any characters in the group." PO MTA 27. This recitation clearly provides more detail than was provided in original claim 1; however, the additional detail specifies how the video game is conducted (i.e., the rules to be followed) as opposed to a technological improvement. In other words the proposed substitute claims, like the original claims, recite following rules (specifically, rules for a battle game), which is a certain method of organizing human activity that has been found to be patent ineligible. Guidance at 52. For this reason, and the reasons discussed above in Part II.B.2.b regarding the original claims, we determine that the proposed substitute claims are directed to a judicial exception (abstract idea). We also determine that the proposed substitute claims do not integrate the recited abstract idea into a practical application for the reasons discussed above in Part II.B.2.c and that the additional elements beyond the recited abstract idea do not recite an inventive concept for the reasons discussed above in Part II.B.2.d. Accordingly, we find that substitute claims 13–24 are not patent eligible.

2. Written Description Support for Substitute Claims

Petitioner contends that the substitute claims lack written description support. Pet. Opp. to MTA 18–24. 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 its burden of production for substitute claims 13–24 and Petitioner has not met its burden of demonstrating that these claims lack written description support in accordance with 35 U.S.C. § 112(a).

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 Petitioner has not met its burden of demonstrating that substitute claims 13–24 are indefinite.

IV. ORDER

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

ORDERED that claims 1–12 of the '744 patent are held unpatentable;

FURTHER ORDERED that Patent Owner's Motion to Amend is denied with respect to substitute claims 13–24; 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.

For PETITIONER:

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

For PATENT OWNER:

John Alemanni
Scott Kolassa
Andrew Rinehart
Steven Moore
KILPATRICK TOWNSEND & STOCKTON LLP
jalemanni@kilpatricktownsend.com
skolassa@kilpatricktownsend.com
arinehart@kilpatricktownsend.com
smoore@kilpatricktownsend.com