

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SUPERCCELL OY,
Petitioner,

v.

GREE, INC.,
Patent Owner.

Case PGR2018-00050
Patent 9,675,886 B2

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

DEFRANCO, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining No Challenged Claims Unpatentable
35 U.S.C. § 328(a)

GREE, Inc. (“GREE”) is the owner of U.S. Patent No. 9,675,886 B2 (“the ’886 patent”). Supercell Oy (“Supercell”) filed a Petition for post-grant review of claims 1–10 of the ’886 patent. Paper 1 (“Pet.”). After a preliminary review of Supercell’s Petition, we instituted post-grant review of all the challenged claims. Paper 8 (“Inst. Dec.”). GREE, in turn, opposed

the Petition. Paper 11 (“PO Resp.”). Supercell replied. Paper 20 (“Reply”). And GREE filed a sur-reply. Paper 22 (“Sur-Reply”). In addition, as part of its response to the Petition, GREE filed a contingent motion to amend (Paper 12), which Supercell opposed (Paper 21). An oral hearing was conducted on June 26, 2019. Paper 29 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6. After considering the parties’ arguments and supporting evidence, we determine that Supercell has *not* proven by a preponderance of the evidence that claims 1–10 of the ’886 patent are unpatentable. 35 U.S.C. § 326(e). As such, we need not reach GREE’s contingent motion to amend. We issue this Final Written Decision pursuant to 35 U.S.C. § 328(a).

I. BACKGROUND

A. The ’886 Patent’s Advancement Over Conventional Online Games

The ’886 patent, titled “Method, Computer, and Program for Providing Game,” issued June 13, 2017, and claims priority to a foreign application filed January 28, 2014.¹ Ex. 1001, codes [30], [45], [54]. The ’886 patent begins by describing a conventional online game system in which a “server apparatus” communicates with a “user terminal,” such as a smartphone, to transmit game content for display on the user terminal. *Id.* at 1:19–45. But, according to the ’886 patent, when the game content includes multiple rounds of play, conventional online games suffer from inefficient

¹ The ’886 patent is eligible for post-grant review because Supercell filed its Petition within nine months from the ’886 patent’s issue date, and the earliest possible priority date of the ’886 patent is after March 16, 2013 (the effective date for the first inventor to file provisions of the Leahy-Smith America Invents Act). See 35 U.S.C. § 321. GREE does not contest the eligibility of the ’886 patent for post-grant review.

transmission of game data. For instance, conventional online games that transmit game view data for all rounds at once incur long transmission and wait times before the user can commence gameplay (*id.* at 1:46–49, 10:15–24), while online games that transmit game view data for one round at a time disrupt smooth progress of gameplay due to wait times required to download the next round once a round is completed (*id.* at 1:52–54, 10:26–29).

Transmitting round-based online games in this way results in inefficiency because the user's wait time is increased either initially (where an entire set of rounds is transmitted at once) or between rounds (where only one round is transmitted at a time). *Id.*

To address this problem, the '886 patent provides “a method, a computer, and a program for efficiently providing game content through a web application.” *Id.* at 1:58–60. To do this, a “management server” is provided with a “controller” that determines a “predetermined number” of rounds for transmission to the user terminal. *Id.* at 1:60–2:5, 3:66–4:11, Fig. 1. The management server is connected to user terminals through a network such as the Internet. *Id.* at 4:1–3. As described, the predetermined number of rounds is a “subtotal” of the total number of rounds in the game. *Id.* at 2:31–42. In determining the predetermined number of rounds for transmission to the user terminal, the controller identifies a “terminal attribute” of the user terminal and sets the predetermined number of rounds based on the identified terminal attribute. *Id.* at 3:6–11, 11:6–44. For example, the identified terminal attribute may be “an information processing speed or a communication speed” of the user terminal, such that where the speed “is high, the number of rounds is set to be large.” *Id.* at 11:20–23. With this configuration—by transmitting a predetermined number of rounds

rather than an entire set of rounds at a time or a single round at a time—transmission and wait times for gameplay are reduced, which “allows the game to efficiently progress.” *Id.* at 2:40–42.

B. The Challenged Claims

Of the challenged claims, three are independent—claims 1, 9, and 10. The three independent claims essentially differ only as to the preamble, with claim 1 reciting a “method,” claim 9 reciting a “computer,” and claim 10 reciting a “non-transitory computer-readable storage medium with a program stored therein for executing a method.” Common across the claims are the following steps for execution by “a controller”:

- (1) transmitting “game view data . . . corresponding to a first subset of rounds including a predetermined number of rounds,”
- (2) “identifying a terminal attribute of the user terminal,”
- (3) “determining the predetermined number based on the terminal attribute,” and
- (4) “detecting that the first subset of the rounds is completed [and] collectively transmitting, to the user terminal, game view data corresponding to a second subset of rounds including the predetermined number of rounds.”

See Ex. 1001, claims 1, 9, 10.

Given the identity of the limitations of the independent claims, we view claim 1 as representative.² Claim 1 recites:

1. A method comprising:
by a controller, collectively transmitting game view data of a game involving multiple opponents and having a set of a

² The parties do not argue claims 1, 9, and 10 separately, but rather apply the same argument across all three independent claims. See Pet. 33–53; PO Resp. 7–38.

plurality of rounds to a user terminal, the game view data corresponding to a first subset of rounds including a predetermined number of rounds in the plurality of rounds;

identifying a terminal attribute of the user terminal;

determining the predetermined number based on the terminal attribute; and

responsive to detecting that the first subset of the rounds is completed, collectively transmitting, to the user terminal, game view data corresponding to a second subset of rounds including the predetermined number of rounds subsequent to the completed rounds.

Ex. 1001, 13:58–14:5 (emphases added).

C. The Asserted Grounds of Unpatentability

Supercell asserts that claims 1–10 of the ’886 patent are unpatentable, *first*, as being directed to non-statutory subject matter under 35 U.S.C. § 101 (Pet. 26–54), *second*, as failing to comply with the written description requirement of 35 U.S.C. § 112(a) (*id.* at 54–61), and, *third*, as being indefinite under 35 U.S.C. § 112(b) (*id.* at 62–66).

II. ANALYSIS

A. Claim Construction

Neither Supercell nor GREE proposes a construction for any particular claim term. *See* Pet. 20–26; PO Resp. 6. We determine that no express construction of the claim terms is necessary for purposes of this decision, with one exception. We note that the Specification of the ’886 patent describes the claimed “terminal attribute” as follows: “Examples of the attribute information may include the OS version, the browser type, the terminal type, the communication circumstance, and the like.” Ex. 1001, 11:33–35. In that regard, the Specification also explains a communication

circumstance as follows: “For example, in a case where an information processing speed or a communication speed in the user terminal . . . is high, the number of rounds is set to be large.” *Id.* at 11:20–23. As such, we determine that the plain and ordinary meaning of “terminal attribute” encompasses at least the examples listed in the Specification and should be read accordingly.³

B. Supercell’s Challenge Under 35 U.S.C. § 101

Supercell asserts that claims 1–10 of the ’886 patent do not recite patent eligible subject matter under 35 U.S.C. § 101. *See* Pet. 26–53; Reply 1–18. GREE disagrees. *See* PO Resp. 7–38; Sur-Reply 1–13. Section 101 of the patent statute defines patent-eligible subject matter as “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” 35 U.S.C. § 101. Laws of nature, natural phenomenon, and abstract ideas, however, are not patentable. *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 217 (2014) (“*Alice*”) (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 77–78 (2012) (“*Mayo*”). Here, Supercell relies on the judicial exception of abstract ideas to argue that the challenged claims are ineligible for patenting. Pet. 33–42; Reply 1–11.

In evaluating whether the challenged claims are “directed to” a patent-ineligible abstract idea, we are guided by the framework set forth in *Alice* and *Mayo*. *Alice*, 573 U.S. at 217–227 (citing and quoting *Mayo*

³ While not dispositive, we note that GREE’s expert testified extensively, not to mention persuasively, as to how a skilled artisan would have understood “terminal attribute” in light of the Specification. Ex. 1007, 36:17–43:5, 44:20–45:22. Supercell offered no rebuttal testimony.

throughout).⁴ Under the *Alice/Mayo* framework, we consider first whether the claims are “directed to” an abstract idea and not a technological improvement in computer functionality that transforms the claim into a practical application of the idea.⁵ *Alice*, 573 U.S. at 221–224 (discussing *Diamond v. Diehr*, 450 U.S. 175 (1981), in which patent claims were held “patent eligible because they improved an existing technological process, not because they were implemented on a computer”). As a final safeguard, we consider whether any claim elements, either individually or in combination, amount to an “inventive concept,” in other words, something “significantly more” than “well-understood, routine, conventional activities previously known to the industry.”⁶ *Alice*, 573 U.S. at 221–222, 225 (internal quotations, brackets, and citations omitted).

Here, we resolve the patent eligibility issue at the first step of the *Alice/Mayo* framework and conclude that the claims are *not* directed to an abstract idea. Supercell asserts that the challenged claims are directed to an abstract idea because they recite a “method of organizing human activity,”

⁴ We are also guided by Office’s 2019 Revised Patent Subject Matter Eligibility Guidance (“Office Guidance”), which outlines the *Alice/Mayo* framework in terms of a three-part inquiry. 84 Fed. Reg. 50, 53–56 (Jan. 7, 2019) (describing “Step 2A” as including “Prong One” and “Prong Two,” followed by “Step 2B”).

⁵ This step of the *Alice/Mayo* framework is recounted in the Office Guidance as “Revised Step 2A . . . Prong One: Evaluate Whether the Claim Recites a Judicial Exception . . . [and] Prong Two: If the Claim Recites a Judicial Exception, Evaluate Whether the Judicial Exception is Integrated Into a Practical Application.” 84 Fed. Reg. at 54.

⁶ This step of the *Alice/Mayo* framework is recounted in the Office Guidance as “Step 2B: If the Claim is Directed to a Judicial Exception, Evaluate Whether the Claim Provides an Inventive Concept.” 84 Fed. Reg. at 56.

which Supercell characterizes as “determining a number of rounds to be played in a game — in a video game environment using general-purpose computers.” Pet. 26; *see also id.* at 39 (“concept of identifying . . . a terminal attribute and determining the predetermined number [of rounds] based on that attribute, is no different than other methods of organizing human activity that have previously been found unpatentable”). In support of its argument that the claims are drawn to a method of organizing human activity rather than a technological improvement in the functionality of an online game system, Supercell characterizes the claims as “reciting only a series of result-oriented functions, rather than a means of achieving those results.” Reply 5 (citing *Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1337 (Fed. Cir. 2017)); *see also id.* at 3 (“Claim 1 fails step one of *Alice* because it recites *no* detailed rules or steps to explain *how* the claimed functions are performed.”).

GREE responds that, rather than being directed to an abstract idea, “the claims . . . are directed to a specific manner of transmitting video game data in a way that results in an improved system for executing the video game.” PO Resp. 8. The specific manner of transmission, according to GREE, includes the use of “a terminal attribute (*e.g.*, communication speed, browser type, terminal type) . . . to set the predetermined number of rounds which are transmitted in each subset of rounds” between a management server and user terminal. *Id.* at 15. Controlling the transmission of rounds based on a terminal attribute, GREE contends, “improves the efficiency of game data transmission for each user terminal having different terminal attributes, compared to conventional systems which fail to consider a terminal’s attribute when determining how many rounds to transmit at a

time.” *Id.* (citing Ex. 1001, 3:6–11, 11:8–44; Ex. 2001 ¶¶ 29–32); *see also id.* at 22–23 (same).

We agree with GREE that the claims are drawn to a specific technological improvement in the transmission of online game content by using a terminal attribute to improve the efficiency and functionality of transmitting multiple rounds of an online game to a user terminal, and that this improvement is not an abstract idea.⁷ Although, as Supercell argues, the recited function of “transmitting game view data” may be result-oriented (see Pet. 33–37; Reply 4–6), the claims nonetheless recite a specific technique for achieving that result-oriented function—*identifying a terminal attribute of the user terminal and determining the predetermined number based on the terminal attribute*. That particular technique, as made clear by the ’886 patent, solves a specific technological problem with conventional online game systems—long wait times and interruptions in the transmission of multiple rounds of the game. *See* Ex. 1001, 1:46–54 (describing the problem with conventional online game systems).

So, rather than reciting just result-oriented functions, the clear focus of the claims is on improving the capability of *how* game content is transmitted to a user terminal, that is, by identifying and using a particular attribute of the user terminal to efficiently control transmission of game content that includes a plurality of rounds. *See Uniloc USA, Inc. v. ADP, LLC*, 772 F. App’x 890, 897 (Fed. Cir. 2019) (“It is true that . . . the goal of

⁷ Our finding that the claims are directed to a specific technological improvement corresponds to “Prong Two” of the Office Guidance. *See* 84 Fed. Reg. at 54–55.

the claims is functional But the patent claims a particular improvement in *how* this is done This is the clear ‘focus’ of the claims”); *see also SRI Int’l, Inc. v. Cisco Sys., Inc.*, 918 F.3d 1368, 1375 (Fed. Cir. 2019) (claims held not abstract because they were “directed to using a specific technique . . . to solve a technological problem arising in computer networks.”).

The Specification of the ’886 patent bolsters our conclusion that the claims are directed to a technological solution to a technological problem.⁸ At the outset, the Specification explains that, prior to the claimed invention, users of conventional online game systems experienced long wait times before commencing play in games that transmitted all the rounds at a single time and discontinuity of play in games that transmitted one round at a time. Ex. 1001, 1:46–54, 10:15–36. According to the Specification, the claimed invention avoids those shortfalls by utilizing a controller that “identifies the terminal attribute of the user terminal and determines the subtotal round count based on the terminal attribute.” *Id.* at 3:6–11. Importantly, the Specification defines the “terminal attribute,” while explaining how it is used in execution of the “number of rounds determining process”:

First, the controller 21 of the management server 20 performs an identifying process of a terminal attribute of the user terminal (Step S4-1). Specifically, the game management section 212 of the controller 21 acquires attribute information of the user terminal 10 through the browser of the user terminal 10. *Examples of the attribute information may include the OS*

⁸ We recognize that, while “helpful in illuminating what a claim is ‘directed to’ . . . the specification must always yield to the claim language” when identifying the “true focus of a claim.” *Chargepoint, Inc. v. Sema-Connect, Inc.*, 920 F.3d 759, 766 (Fed. Cir. 2019).

version, the browser type, the terminal type, the communication circumstance, and the like.

Next, the controller 21 of the management server 20 performs a specifying process of the predetermined number of rounds based on the terminal attribute (Step S4-2). Specifically, the game management section 212 of the controller 21 determines the predetermined number of rounds 40 using the terminal attribute table.

With this configuration, a plurality of pieces of battle view data can be collectively transmitted while taking the usability for the game user into consideration.

Id. at 11:6–44 (emphasis added). Those passages support that the claim limitations directed to identifying a terminal attribute and using that terminal attribute to determine the number of rounds for transmission to the user terminal are clearly focused on providing a technological improvement to online game technology.

Moreover, it is undisputed that, during prosecution of the '886 patent, the addition of the limitations of “identifying a terminal attribute” and “determining the predetermined number of rounds based on the terminal attribute” was central to allowance of the claims. Ex. 1002, 20–21, 34. And consistent with the Specification and prosecution history of the '886 patent, GREE's expert explains that the use of a terminal attribute in determining the round count transmitted to the user terminal results in less memory usage and processing time, while at the same time optimizing the efficiency and functionality of the online game system. Ex. 2001 ¶¶ 27–32. We find that un rebutted testimony persuasive. Thus, clearly the focus of the claims is on the use of the terminal attribute to improve the efficiency and functionality of transmitting game content that includes multiple rounds to a user terminal. The claims are therefore much like the claims held not to be

abstract in *Uniloc*, which were directed to “use of a file packet to enable the further functionality of initiating on-demand registration of the application [from an application server].” *Uniloc*, 772 F. App’x at 897.

Also, we are unpersuaded by Supercell’s assertions that the claims at issue here comport with those held to be an abstract method of organizing human activity in *In re TLI Communications LLC Patent Litigation*, 823 F.3d 607, 611, 613 (Fed. Cir. 2016), *Intellectual Ventures I LLC v. Capital One Bank*, 792 F.3d 1363, 1367 (Fed. Cir. 2015), and *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350, 1351–52 (Fed. Cir. 2016). See Pet. 39–42; Reply 6–7. Each of those cases involved claims that were entirely functional in nature and said nothing about *how* to implement the recited functions. Indeed, the claims in *Electric Power*, which Supercell focuses on at length, were drawn to using a computer as a mere tool to collect, organize, and display power grid data, rather than improving the efficiency and functionality of the computer network itself. See *Elec. Power*, 830 F.3d at 1353–54. As discussed above, that is not the case here.

The challenged claims are patent eligible because they recite a specific means—the identification and use of a terminal attribute to determine a round count—to improve the efficiency and functionality of transmitting a plurality of rounds to user terminals of online game networks. As such, they are more akin to the claims held patent eligible in *Data Engine Technologies LLC v. Google LLC*, 906 F.3d 999, 1008–11 (Fed. Cir. 2018) (holding claims patent eligible under *Alice* step one because they recited a specific improvement that “provide[d] rapid access to and processing of information in different spreadsheets, . . . [thereby] improving computers’ functionality as a tool able to instantly access all parts of complex three-

dimensional electronic spreadsheets”), and *Core Wireless Licensing S.A.R.L. v. LG Electronics, Inc.*, 880 F.3d 1356, 1363 (Fed. Cir. 2018) (holding claims patent eligible under *Alice* step one because they “improve[] the efficiency of using the electronic device by bringing together ‘a limited list of common functions and commonly accessed stored data’”). For these reasons, we are not persuaded by Supercell’s assertion that the challenged claims are abstract as directed to a method of organizing human activity.

In sum, the claims of the ’886 patent are not directed to an abstract idea, but rather are directed to a particular improvement in the efficient transmission of online game content to a user terminal. Because the claims are not directed to an abstract idea, we need not proceed to the next step of the *Alice/Mayo* framework. See *Data Engine*, 906 F.3d at 1007, 1011 (citing *Core Wireless*, 880 F.3d at 1361, 1363). After considering the entire record, we determine that Supercell fails to demonstrate by a preponderance of the evidence that claims 1–10 are patent ineligible under 35 U.S.C. § 101.

*C. Supercell’s Challenge Under 35 U.S.C. § 112(a)*⁹

Supercell contends that claims 1–10 are unpatentable because the Specification lacks written description support for the claim recitation of “determining the predetermined number based on the terminal attribute.” Pet. 56–61. According to Supercell, “[t]he specification never describes how the system determines the predetermined number of rounds based on the terminal attribute.” Reply 19. We disagree.

⁹ Supercell has chosen “not to continue with” its § 112(a) and § 112(b) challenges with respect to the limitation of “identifying a terminal attribute of the user terminal.” Reply 18 n.3. Accordingly, we do not consider Supercell’s assertions on these issues.

The Specification of the '886 patent provides that the predetermined number of rounds is obtained from a “terminal attribute table” stored in the game server. More specifically, as described in the Specification,

the predetermined number of rounds is not limited to a fixed value. For example, the predetermined number of rounds may vary according to the terminal attributes. In this case, the management server 20 stores a terminal attribute table. In the terminal attribute table, the predetermined number of rounds is recorded in association with the terminal attributes. In the terminal attribute table, the predetermined number of rounds in which usability such as a waiting time until the game starts is taken into consideration is recorded in a terminal status. For example, in a case where an information processing speed or a communication speed in the user terminal 10 is high, the number of rounds is set to be large. . . .

First, the controller 21 of the management server 20 performs an identifying process of a terminal attribute of the user terminal (Step S4-1). Specifically, the game management section 212 of the controller 21 acquires attribute information of the user terminal 10 through the browser of the user terminal 10. Examples of the attribute information may include the OS version, the browser type, the terminal type, the communication circumstance, and the like.

Next, the controller 21 of the management server 20 performs a specifying process of the predetermined number of rounds based on the terminal attribute (Step S4-2). Specifically, the game management section 212 of the controller 21 determines the predetermined number of rounds using the terminal attribute table.

Ex. 1001, 11:11–41.

As explained by GREE’s expert, a skilled artisan would have known from that description how to determine the predetermined number of rounds using a terminal attribute table. See Ex. 1007, 57:20–62:10, 82:14–23, 87:7–90:22. That expert testimony, which we find persuasive, is unrebutted and

stands in direct contrast to unsupported attorney argument from Supercell. *See* Pet. 58–61; Reply 19–21. Thus, we determine that Supercell has not established by a preponderance of the evidence that claims 1–10 are unpatentable under 35 U.S.C. § 112(a) as lacking written description support.

D. Supercell’s Challenge Under 35 U.S.C. § 112(b)

Supercell asserts that the claimed “determining” limitation is indefinite because

[t]he specification does not elucidate . . . how the predetermined number is “predetermined” . . . how the predetermined number gets into the table . . . how the predetermined number is recorded . . . how the system determines the predetermined number of rounds . . . how the table is “used” for the determination, and . . . which of the various terminal attributes is identified as the basis for the number of rounds determination.

Pet. 64–65; Reply 22–23. But aside from that conclusory assertion, Supercell’s Petition simply poses a series of rhetorical questions without further analysis or evidentiary support. *See* Pet. 65–66.

GREE, on the other hand, offers expert testimony as to why the meaning of the claimed “determining” limitation is clear not only from the claim language itself but also in light of the Specification. Ex. 2001 ¶¶ 40–42 (citing Ex. 1001, 11:20–41). We find that testimony persuasive. We also find persuasive GREE’s reasoning in response to each of the rhetorical questions raised by Supercell, even though it was under no obligation to do so. PO Resp. 47–49; Sur-Reply 17–19. And given the lack of argument, not to mention evidentiary support, in the Petition as to the purported indefiniteness of the challenged claims, we are not persuaded that Supercell

has carried its burden of showing that the claims are unpatentable under 35 U.S.C. § 112(b).

III. ORDER

Accordingly, it is:

ORDERED that Supercell has *not* shown by a preponderance of the evidence that claims 1–10 of the '886 patent are unpatentable; and

FURTHER ORDERED that, because this is a Final Written Decision, any party to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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