

United States Court of Appeals for the Federal Circuit

IGT,
Appellant

v.

ZYNGA INC.,
Appellee

2023-2262

Appeal from the United States Patent and Trademark
Office, Patent Trial and Appeal Board in No. IPR2022-
00199.

Decided: July 22, 2025

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Before PROST, REYNA, and TARANTO, *Circuit Judges*.

TARANTO, *Circuit Judge*.

IGT owns expired U.S. Patent No. 7,168,089, titled “Secured Virtual Network in a Gaming Environment,” which issued in January 2007 from an application filed in 2002. In 2003, after the IGT application was published, a predecessor of Zynga Inc. included claims copied from that application in its own patent application, and in 2010 the Board of Patent Appeals and Interferences of the Patent and Trademark Office (PTO)—the predecessor of the Patent Trial and Appeal Board (created by Congress in 2011)—declared an interference between Zynga’s application and IGT’s ’089 patent. (We use “Board” to refer to both boards and “Zynga” to refer to Zynga Inc. and its predecessor.) In the interference, Zynga moved for judgment that the involved claims of the ’089 patent were unpatentable for obviousness under 35 U.S.C. § 103. But the Board dismissed that motion as moot when it terminated the interference for a threshold reason—namely, that the claims Zynga had included in its application to trigger the interference were not supported by the written description of its application.

A decade later, in 2021, Zynga petitioned the PTO to institute an inter partes review (IPR) of claims 28–29, 31–33, 47–50, 84–86, 90–92, and 99–100 of IGT’s ’089 patent, alleging obviousness based on a combination of prior-art references that it had not relied on in its unpatentability motion in the interference. IGT, opposing institution, argued that interference estoppel under 37 C.F.R. § 41.127(a)(1) barred Zynga from raising its obviousness challenge. The Board, acting as the delegatee of the PTO’s Director, declined to apply interference estoppel and instituted the requested review; and the Director, reviewing that determination, likewise rejected application of interference estoppel. The Board then proceeded with the review and ultimately concluded that all the challenged claims were unpatentable under § 103.

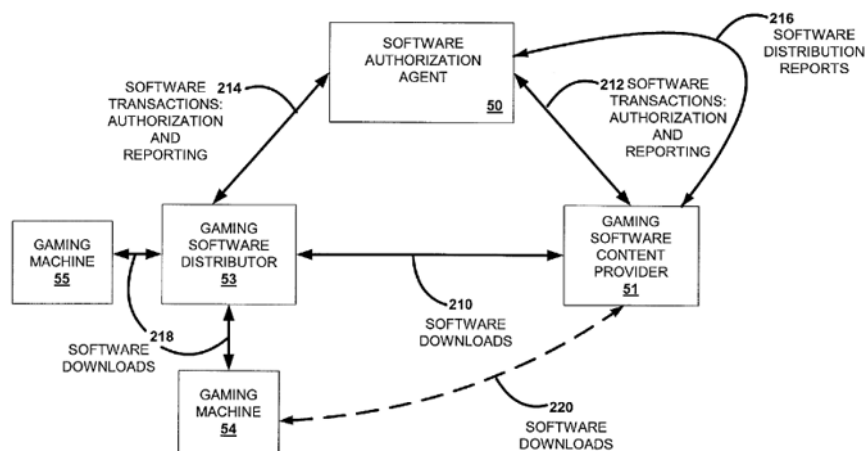
IGT appeals, challenging the PTO’s decision not to apply interference estoppel, *see* § 41.127(a)(1), and the Board’s conclusion of obviousness. Zynga responds that the decision not to apply interference estoppel was an unreviewable decision to institute review, *see* 35 U.S.C. § 314(d), and in any event was correct; and Zynga also defends the Board’s obviousness ruling on the merits. Regarding the decision not to apply interference estoppel, we conclude that the decision is within the general rule of unreviewability, and, to the extent the Supreme Court’s decision in *Cuozzo Speed Technologies, LLC v. Lee* might allow inquiry into whether the Board engaged in “shenanigans” not in accordance with law, 579 U.S. 261, 275 (2016), there were no shenanigans here—indeed, the PTO had sound reasons for declining to apply interference estoppel. Regarding the final written decision of unpatentability, we reject IGT’s procedural and substantive challenges on appeal. Accordingly, we affirm.

I

A

The ’089 patent addresses the need in “game playing services for gaming machines such as slot machines and video poker machines” to “securely communicate with devices over a public network such as the Internet.” ’089 patent, col. 1, lines 16–18; *id.*, col. 4, lines 28–30. The patent describes methods for authorizing the “transfer [of] gaming software and gaming information” between gaming devices, which may be gaming machines, game servers, and combinations thereof. *Id.*, col. 4, lines 34–37; *id.*, col. 5, lines 5–6. Specifically, it describes a software authorization agent—which “may be a conventional data server including . . . a database, a router, a network interface, a CPU, a memory and a firewall”—for authorizing and monitoring the transfer of gaming software. *Id.*, col. 24, lines 32–42 (reference numbers from figure omitted); *id.*, col. 4, lines 38–40; *see also, e.g., id.*, col. 25, lines 1–5.

Figure 9 shows such a method:



In that example, a gaming software distribution network includes several types of gaming devices, including gaming machines 54 and 55, a gaming software content provider 51 (e.g., a game server that may be “maintained by a gaming software developer” and store gaming software and gaming software components), and a gaming software distributor 53 (e.g., a game server that may be “maintained by a gaming entity such as a casino” and store “gaming software that has been licensed to the gaming entity” from the gaming software content providers). *Id.*, col. 28, lines 27–36; *id.*, col. 25, lines 23–34; *id.*, col. 26, lines 27–39. The gaming software distributor 53 “may contact the software authorization agent 50 to request a transfer of gaming software from the gaming software [content] provider 51 to the gaming [software] distributor 53. . . . [or] to another gaming device such as a gaming machine [54 or 55].” *Id.*, col. 28, lines 40–47. “The software authorization agent 50 may approve or deny the request” for the “transfer of gaming software.” *Id.*, col. 28, lines 45–49. If the request is approved, then “[a]fter receiving authorization from the software [authorization] agent [50], the gaming software distributor 53 may contact the gaming software content

provider 51,” which will send the gaming software over the network. *Id.*, col. 28, lines 61–67; *see also id.*, col. 29, lines 10–11 (“[G]aming software transfers [between two gaming devices] may be routed through the software authorization agent 50.”); *id.*, col. 29, lines 63–66 (“[G]aming software distributor 5[3] may forward the gaming software to the gaming machine 55 after receiving it from the gaming software content provider 51.”).

Claim 28, on which claims 29, 31–33, 47–50 depend, is representative for present purposes and recites (after a certificate of correction):

28. In a ***software authorization agent***, a method of regulating a transfer of gaming software between two gaming devices, the method comprising:

receiving a gaming software download request message with gaming software transaction information from a first gaming device;

validating the gaming software download request using the gaming software transaction information;

sending an authorization message to the first gaming device wherein the authorization message includes information indicating whether the first gaming device is authorized to transfer the gaming software to a second gaming device and wherein the first gaming device and the second gaming device are separate from the software authorization agent;

wherein the gaming software is for at least one of a) a game of chance played on a gaming machine, b) a bonus game of chance played on a gaming machine, c) a device driver for a [sic] device installed on a

gaming machine, d) a player tracking service on a gaming machine and e) an operating system installed on a gaming machine.

Id., col. 43, lines 21–43 (emphases added); J.A. 125. Independent claim 84, on which claims 85–86, 90–92, and 99–100 depend directly or indirectly, is very similar to claim 28 but refers to the “gaming software download request” as a “gaming software transaction request.” *Id.*, col. 47, line 52, through col. 48, line 7; IGT Opening Br. at 12 n.3. We treat the limitations in claims 28 and 84 together because, as the parties agree, the claims are materially the same. IGT Opening Br. at 12 n.3; Zynga Response Br. at 14.

B

The '089 patent issued from an application that was filed by IGT on April 3, 2002, and published on August 22, 2002. J.A. 80. On August 21, 2003, Zynga's predecessor Legal iGaming, Inc. filed U.S. Patent Application No. 10/658,836 (Zynga Application), which included claims copied from IGT's published application. J.A. 2300–01; J.A. 300–01. On March 5, 2010, a few years after the '089 patent issued (in 2007), the Board declared an interference between the claims of the '089 patent and the Zynga Application. J.A. 2316–21.

As relevant here, in that proceeding, the Board authorized Zynga to move for judgment that the involved claims were unpatentable for obviousness under 35 U.S.C. § 103 in view of U.S. Patent No. 7,260,834 (Carlson), which is the direct parent of the Zynga Application. J.A. 2412–13; J.A. 2404–09 (Zynga's proposed motions).¹ The Board also

¹ We cite relevant statutory provisions, *e.g.*, 35 U.S.C. §§ 103, 112, without providing a date because, although the versions predating the Leahy-Smith America

authorized IGT to move for judgment that Zynga lacked standing because the claims it had copied into the Zynga Application were unpatentable under 35 U.S.C. § 112 for lack of adequate written-description support in that Application. J.A. 2411–12; J.A. 2669–75 (IGT’s proposed motions). In Zynga’s motion for judgment of unpatentability, Zynga argued that the claims of the ’089 patent would have been obvious in view of Carlson alone or in combination with U.S. Patent No. 6,805,634 (Wells) and U.S. Patent No. 5,643,086 (Alcorn). J.A. 2415–47. Zynga’s motion did not refer to any other prior art. J.A. 2415–47.

On February 14, 2014, the Board granted IGT’s motion for judgment on the “threshold issue” IGT raised, J.A. 2310, concluding that the involved claims of the Zynga Application lacked adequate written-description support in the Zynga Application, J.A. 2296–97, 2302–10. The Board explained:

Because Zynga’s original specification does not provide written descriptive support for the full scope of the subject matter of its involved claims, Zynga is not an appropriate party, and this interference is not an appropriate forum, to challenge IGT’s patent. See 37 CFR § 41.201, definition of “threshold issue.” Therefore, we will not consider Zynga’s attacks on IGT’s claims. We decline to consider Zynga’s Substantive Motion . . . asserting IGT’s claims are unpatentable over prior art.

J.A. 2310; *see also* J.A. 2297 (explaining that it would be “inappropriate and unfair to allow th[e] interference to

Invents Act (AIA), Pub. L. No. 112-29, 125 Stat. 284, 287–88, 296–97 (2011), applied to the interference and IPR proceedings in this case, *see Fintiv, Inc. v. PayPal Holdings, Inc.*, 134 F.4th 1377, 1379 n.1 (Fed. Cir. 2025), the statutory changes made by the AIA are immaterial here.

continue” because “Zynga’s specification does not provide written descriptive support”). Accordingly, the Board terminated the interference with a judgment against Zynga and dismissed “as moot” Zynga’s motion that the involved claims of the ’089 patent were unpatentable for obviousness. J.A. 2297 (citing 37 C.F.R. § 41.201’s definition of “threshold issue”), 2310 (same); *see also* J.A. 2800 (same) (entering judgment against Zynga and explaining that the granting of IGT’s written-description motion “deprives Zynga of an adequate basis to be involved in this interference”).

C

In April 2021, IGT sued Zynga in federal district court, alleging infringement of the ’089 patent (and five other IGT-owned patents not relevant to this appeal). Complaint at 1 ¶ 1, 5–30 ¶¶ 15–94, *IGT v. Zynga Inc.*, No. 6:21-cv-00331 (W.D. Tex. Apr. 6, 2021), Dkt. No. 1. In November 2021, Zynga filed a petition for an inter partes review, *see* 35 U.S.C. §§ 311–319, of claims 28–29, 31–33, 47–50, 84–86, 90–92, and 99–100 of the ’089 patent, asserting obviousness, as relevant here, based on a combination of U.S. Patent No. 5,823,879 (Goldberg) and U.S. Patent No. 6,460,141 (Olden).² J.A. 129–205. Zynga’s petition did not mention Carlson, Wells, or Alcorn. J.A. 129–205.

IGT argued in its preliminary response to the petition that “[t]he Board should deny institution” of the requested IPR because interference estoppel under 37 C.F.R. § 41.127(a)(1)—contained within the 37 C.F.R. pt. 41 interference regulations—barred Zynga from raising its

² Zynga added a third reference (U.S. Patent No. 6,745,224 to D’Souza) in its challenge to claims 49 and 50, *see* J.A. 198–203, but on appeal, IGT makes no separate argument about those claims or that reference. *See* Zynga Response Br. at 16 n.5.

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obviousness challenge based on Goldberg and Olden. J.A. 216, 227–32. The regulation provides:

A[n interference] judgment disposes of all issues that were, or by motion could have properly been, raised and decided. A losing party who could have properly moved for relief on an issue, but did not so move, may not take action in the Office after the judgment that is inconsistent with that party’s failure to move, except that a losing party shall not be estopped with respect to any contested subject matter for which that party was awarded a favorable judgment.

37 C.F.R. § 41.127(a)(1). Because Zynga “could have, but chose not to, raise” the obviousness grounds based on the Goldberg-Olden combination, IGT argued, the Board’s judgment against Zynga in the interference proceedings prevented Zynga from raising that obviousness challenge in its IPR petition. J.A. 216; *see also* J.A. 227–32.

On June 14, 2022, the Board, acting as the delegatee of the PTO’s Director under 37 C.F.R. § 42.4(a), instituted the requested IPR. *Zynga Inc. v. IGT*, No. IPR2022-00199, 2022 WL 22412059, at *1 (P.T.A.B. June 14, 2022) (*Institution Decision*). The Board rejected IGT’s interference-estoppel arguments for two reasons. *Id.* at *4. First, the Board stated that because it had terminated the interference based on the “threshold issue” of lack of adequate written-description support in the Zynga Application, Zynga was deprived of standing and the Board “did not need to, and in fact did not, analyze or decide any issues of unpatentability based on prior art” in the interference proceeding. *Id.* at *4; 37 C.F.R. § 41.201 (defining a “threshold issue” as “an issue that, if resolved in favor of the movant, would deprive the opponent of standing in the interference,” which includes “[u]npatentability for lack of written description under 35 U.S.C. [§] 112”); J.A. 2297, 2310. Second, the Board reasoned that “it would be unfair to impose

the consequences of interference estoppel on Zynga” given that Zynga provoked the interference “two years prior to promulgation” of the post-AIA regulations for IPR and other trial proceedings, codified in 37 C.F.R. pt. 42. *Institution Decision*, at *4. Accordingly, the Board said that “to the extent” the estoppel regulation (§ 41.127(a)(1)) contained in the interference regulations (37 C.F.R. pt. 41) even “applies” to the IPR, the Board waived application of that regulation, *id.*, citing 37 C.F.R. § 42.5(b), which states: “The Board may waive or suspend a requirement of parts 1, 41, and 42 and may place conditions on the waiver or suspension.”

IGT requested rehearing and Precedential Opinion Panel review of the Board’s decision, arguing that interference estoppel barred Zynga’s IPR petition and was not subject to waiver under 37 C.F.R. § 42.5(b). J.A. 350–68. The Board dismissed the request, but the PTO Director decided *sua sponte* to review the Board’s decision. J.A. 379–81; *Zynga Inc. v. IGT*, No. IPR2022-00199, 2022 WL 22412060, at *1 (P.T.A.B. Aug. 22, 2022) (*Director’s Decision*). In an August 22, 2022 decision, the Director “affirm[ed] the Board’s result that [Zynga] should not be barred from pursuing inter partes review based on interference estoppel.” *Director’s Decision*, at *1 (emphasis omitted). The Director recited two reasons. First, the Director determined that interference estoppel under § 41.127 did not apply because IPR proceedings are governed by 37 C.F.R. pt. 42, which “does not incorporate Part 41, or more specifically, the interference estoppel provisions of 37 C.F.R. § 41.127(a)(1).” *Id.* Second, “[e]ven if interference estoppel . . . applied to trial and preliminary proceedings before the Board,” interference estoppel would not apply here “because the Board’s termination based on a threshold issue prevents the judgment from disposing of all issues that were, or by motion could have properly been, raised and decided.” *Id.* at *2. After terminating the interference on the threshold issue of written description, the Director reiterated, the Board

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had dismissed Zynga’s motion as moot and did not “make any determination on unpatentability.” *Id.* The Director concluded that she “need not reach the issue of whether the Board properly waived interference estoppel” because she affirmed on alternative grounds. *Id.* at *1.

On June 6, 2023, the Board issued its final written decision, holding claims 28–29, 31–33, 47–48, 84–86, 90–92, and 99–100 of the ’089 patent unpatentable for obviousness in view of Goldberg and Olden and the same for claims 49–50 in view of those references plus D’Souza (not separately argued here, *see supra* n.2). J.A. 76–77. The Board noted that IGT “again raises the issue of interference estoppel” and that its institution decision and the Director’s decision declined to apply interference estoppel in this IPR proceeding. J.A. 76.

IGT timely appealed the Board’s decision. J.A. 801–05. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

II

We first consider IGT’s argument that the PTO erred in ruling that interference estoppel did not bar Zynga from petitioning for an inter partes review on the ground that the ’089 patent was obvious over prior-art references—as relevant to this appeal, Goldberg and Olden—not presented during the interference proceedings. IGT Opening Br. at 31–40. We address both the reviewability and correctness of the PTO’s ruling. We decide legal issues *de novo*, including whether a statute precludes judicial review and whether challenged agency action is “not in accordance with the law or without observance of procedure required by law.” *Apple Inc. v. Vidal*, 63 F.4th 1, 11 (Fed. Cir. 2023); *EmeraChem Holdings, LLC v. Volkswagen Group of America, Inc.*, 859 F.3d 1341, 1345 (Fed. Cir. 2017) (cleaned up) (citing 5 U.S.C. § 706). We “review the Board’s application of its own procedures for abuse of discretion.” *CyWee Group Ltd. v. ZTE (USA), Inc.*, 90 F.4th 1358, 1364 (Fed. Cir. 2024). We conclude that the PTO’s interference-

estoppel determination in this case is within the general rule of unreviewability, and in any event we see no reversible error in that determination that could justify an exception to that rule for this case.

A

In the America Invents Act (AIA), Pub. L. No. 112-29, 125 Stat. 284 (2011), Congress “invest[ed] the Director with discretion on the question *whether* to institute [inter partes] review.” *SAS Institute, Inc. v. Iancu*, 584 U.S. 357, 358 (2018) (citing 35 U.S.C. § 314(a)); *see also Apple*, 63 F.4th at 6–7. Congress also “protected [the Director’s] exercise [of that discretion] from judicial review,” providing in 35 U.S.C. § 314(d) that “[t]he determination by the Director whether to institute an inter partes review under [§ 314] shall be final and nonappealable.” *Apple*, 63 F.4th at 7; *see also United States v. Arthrex, Inc.*, 594 U.S. 1, 8–9 (2021) (“Congress has committed the decision to institute inter partes review to the Director’s unreviewable discretion.”). This principle of unreviewability covers challenges that “consist of questions that are closely tied to the application and interpretation of statutes related to the Patent Office’s decision to initiate inter partes review.” *Cuozzo*, 579 U.S. at 274–75; *see also Thryv, Inc v. Click-To-Call Technologies, LP*, 590 U.S. 45, 53 (2020). We conclude that IGT’s contention that interference estoppel bars review of Zynga’s IPR petition is within the general unreviewability principle, as IGT’s challenge in this case “ha[s] institution as [its] direct, immediate, express subject.” *Apple*, 63 F.4th at 12.

First, IGT presented the challenge as a reason to deny institution, then immediately sought review—and obtained Director review—of the decision to institute, before patentability was ultimately adjudicated by the Board. In its preliminary response to Zynga’s petition, IGT argued that “[t]he Board should deny institution of inter partes review . . . for several independent reasons,” with the first

reason being that Zynga “is estopped from pursuing this serial challenge” because “37 C.F.R. § 41.127 applies, [and] bar[s Zynga]’s arguments here.” J.A. 216 (emphasis omitted); *see also* J.A. 227–32. IGT’s preliminary response continued that “interference estoppel bars this entire proceeding,” arguing that “[t]he Board has denied institution of IPR grounds based on interference estoppel in circumstances closely mirroring those here.” J.A. 228 (capitalization cleaned up), 230 (citing *Adama Makhteshim Ltd. v. Finchimica S.P.A.*, IPR2016-00577 (P.T.A.B. May 24, 2016), Paper 7; and *Chemours Co. FC, LLC v. Mexichem Amanco Holdings SA, de C.V.*, IPR2020-01667, 2021 WL 1156569 (P.T.A.B. Mar. 25, 2021)). IGT’s immediate rehearing request similarly argued that the *institution decision* should be reversed, as IGT challenged the Board’s “reliance on waiver [of interference estoppel] to achieve its institution decision.” J.A. 355–56 (arguing that “the Board lacks authority to apply waiver to interference estoppel”). In its response filed after institution and the Director’s review decision, IGT continued to argue that “interference estoppel applies in this case to bar this proceeding.” J.A. 460.

Second, as a substantive matter, the challenge, if accepted, would entail non-institution. Zynga’s IPR petition rested *only* on prior-art references (as relevant, Goldberg and Olden) that it did not rely upon in its interference-proceeding motion for judgment of unpatentability. *Compare* J.A. 129–205 (alleging obviousness over Goldberg, Olden, and a third prior-art reference); *with* J.A. 2415–445 (alleging obviousness over Carlson, Wells, and Alcorn in unpatentability motion during interference proceedings). Had the Board agreed with IGT that interference estoppel under 37 C.F.R. § 41.127(a)(1) barred Zynga from raising that obviousness challenge, there would have been no remaining ground for unpatentability or “information presented in the petition” on which the Board could institute an inter partes review. *See* 35 U.S.C. § 314(a) (The Director may authorize an inter partes review where “the

Director determines that the information presented in the petition filed under section 311 . . . shows . . . that there is a reasonable likelihood that the petitioner would prevail”); *id.* § 311 (An IPR “petitioner . . . may request to cancel as unpatentable . . . only on a ground that could be raised under [35 U.S.C. §] 102 or 103”). In this respect, the situation is unlike that presented in *Qualcomm Inc. v. Apple Inc.*, 134 F.4th 1355, 1364–65 (Fed. Cir. 2025), where this court rejected an unreviewability argument that addressed only one of two grounds in the IPR petition. Here, IGT’s contention that the PTO should have applied interference estoppel, like the contention at issue in *Thryv* that the PTO could not institute an inter partes review because the IPR petition was not timely filed, is an unreviewable “contention that the PTO should have refused to ‘institute an inter partes review.’” 590 U.S. at 54; *see* 35 U.S.C. § 315(b) (An IPR “may not be instituted if the petition . . . is filed more than 1 year after”); *Apple*, 63 F.4th at 12.

IGT suggests that we conclude otherwise because its argument relies on a PTO *regulation* (the interference-estoppel regulation) rather than a statutory provision. IGT’s Reply Br. at 1–4. But nothing in § 314(d) narrows its principle of unreviewability in that way: § 314(d) states simply that “[t]he determination . . . whether to institute” is unreviewable. And IGT suggests no logical reason that review of asserted statutory violations would be barred while review of asserted violations of the agency’s own regulations (waivable regulations at that) would be outside the bar.

IGT cannot persuasively suggest, if it suggests at all, that the interference-estoppel regulation is unrelated to institution of the IPR. IGT’s own position on the interference-estoppel regulation is that it flatly bars an IPR based on a ground the petitioner failed to assert in a prior interference. *E.g.*, IGT Opening Br. at 31–33. And if IGT were right in its view, institution would have had to be denied, as already noted. Moreover, the fact that the PTO set forth

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legal reasoning that is capable of being judicially addressed does not make the unreviewable action (institution) reviewable. *See Apple*, 63 F.4th at 13 (relying on *Interstate Commerce Commission v. Brotherhood of Locomotive Engineers*, 482 U.S. 270, 283 (1987)).

Finally, our conclusion is not altered by the fact that the Board briefly summarized the interference-estoppel arguments and determinations in its final written decision. J.A. 76; *see also* IGT Reply Br. at 4; Zynga Response Br. at 28–29. That summary does not transform IGT’s interference-estoppel arguments into something other than a challenge to institution. *Thryv*, 590 U.S. at 60 (holding that “label[ing] a challenge” as an appeal from the final written decision” does not make the appeal reviewable where the challenge still attempts to overturn the institution decision); *Apple*, 63 F.4th at 7 & n.2, 12 (explaining why the appeal of the “scope of a required final written decision,” unlike an appeal of the “all-or-nothing” or “binary” institution decision, is not barred by § 314(d)).

B

In *Cuozzo*, the Supreme Court suggested that there might be exceptions to the general rule of unreviewability where the agency engaged in blatant violations of legal constraints or other “shenanigans.” 579 U.S. at 275. But we see no basis for finding this to be such a case. Between the Board and the Director, the PTO provided three separate reasons for not applying interference estoppel here: (1) the interference was terminated on a “threshold issue,” (2) the Board would exercise its discretion to waive the requirements of § 41.127(a)(1) “to the extent [it] applies,” and (3) interference estoppel “does not apply to trial and preliminary proceedings before the Board,” including inter partes reviews. *Institution Decision*, at *4; *Director’s Decision*, at *1–2. The first two grounds supply sufficient grounds for rejecting interference estoppel in this case.

The PTO may terminate an interference based on a “threshold issue,” *i.e.*, “an issue that, if resolved in favor of the movant, *would deprive the opponent of standing* in the interference.” 37 C.F.R. § 41.201 (emphasis added). “Unpatentability for lack of written description under 35 U.S.C. [§] 112” is one such “threshold issue.” 37 C.F.R. § 41.201(2)(ii). The Board found lack of standing on that basis in the interference, “moot[ing]” Zynga’s motion for judgment of unpatentability for obviousness. J.A. 2297. It is a natural reading of the interference-estoppel regulation, as applied to this circumstance, that the obviousness issue Zynga presented in this IPR was not among the “issues that were, or by motion could have properly been, raised *and decided*.” 37 C.F.R. § 41.127(a)(1) (emphasis added). The requirement is a dual one—that an issue not only could have been raised but also could have been decided in the interference. And it is a straightforward application of the regulatory language to conclude that the second requirement is not met when a determination based on a threshold issue strips the relevant party of standing to proceed with the interference. *Director’s Decision*, at *1–2; *Institution Decision*, at *4.

For a contrary view, IGT points to the second sentence of § 41.127(a)(1), which states that “[a] losing party who could have properly moved for relief on an issue, but did not so move, may not take action in the Office after the judgment that is inconsistent with that party’s failure to move.” IGT Reply Br. at 12; IGT Opening Br. at 36. But that sentence does not on its face make clear what would constitute “action in the Office after the judgment that is inconsistent with that party’s failure to move.” The sensible understanding is that it incorporates, for the scope of the inconsistency, the first sentence—which is limited to an issue that could have been both raised and decided.

That reading is consistent with a familiar aspect of claim-preclusion doctrine. Under the “well-settled principles of claim preclusion,” the general rule against claim-

splitting is that a valid and final judgment in a lawsuit bars a party from subsequently raising a ground of recovery (addressing the same nucleus of operative facts at issue in that suit) that it could have raised (but did not raise) in that suit. *In re PersonalWeb Technologies LLC*, 961 F.3d 1365, 1374–75 (Fed. Cir. 2020) (citations omitted); see Restatement (Second) of Judgments § 24 (Am. L. Inst. 1982). But there are recognized exceptions to the general rule, including that a party is not precluded from bringing a subsequent claim (involving the same nucleus of operative facts) where it was “unable to rely on a certain theory of the case or to seek a certain remedy or form of relief in the first action because of the limitations on the subject matter jurisdiction of the courts or restrictions on their authority.” Restatement § 26(1)(c). Such an exception can apply when a first forum deems itself unable to decide the issue even if that determination is erroneous. *Id.* § 26 cmt. d.

Although we are not directly applying common-law preclusion principles, the proper reading of the regulation here at issue is informed by the familiar idea that claim-splitting often does not apply in a second suit to what could not actually have been decided in a first suit. The PTO’s regulations and its characterizations in the interference at issue make it appropriate to draw the same conclusion in this case, given the determination that Zynga lacked standing in the interference and the obviousness challenge was therefore moot. *Cf. Media Technologies Licensing, LLC v. Upper Deck Co.*, 334 F.3d 1366, 1370 (Fed. Cir. 2003) (“Because standing is jurisdictional, lack of standing precludes a ruling on the merits.”); *Gillig v. Nike, Inc.*, 602 F.3d 1354, 1361 (Fed. Cir. 2010) (citations omitted) (explaining that a dismissal for lack of standing does not have preclusive effect against a party with proper standing); Restatement § 20. And, in any event, these circumstances provide an ample reasonable basis for the exercise of the broad waiver authority granted to the PTO by 37 C.F.R. § 42.5(b).

For those reasons, we find no shenanigans in the interference-estoppel determination that the PTO made in deciding to institute the IPR and no basis for finding an exception to applying the general bar on reviewability of such an institution determination.

III

We next address IGT's challenge to the Board's holding in its final written decision that (as relevant on appeal) the subject matter of the challenged claims would have been obvious in view of Goldberg and Olden. Whether the Board relied on "new" arguments instead of those advanced by a party is a question of law, subject to de novo review. *In re NuVasive, Inc.*, 841 F.3d 966, 970 (Fed. Cir. 2016); *In re IPR Licensing, Inc.*, 942 F.3d 1363, 1368–69 (Fed. Cir. 2019); *Corephotonics, Ltd. v. Apple Inc.*, 84 F.4th 990, 1008 (Fed. Cir. 2023). The Board's ultimate determination of whether a claimed invention would have been obvious is a legal one reviewed de novo, but underlying factual determinations are reviewed for substantial-evidence support. *PersonalWeb Technologies, LLC v. Apple, Inc.*, 917 F.3d 1376, 1381 (Fed. Cir. 2019). "What the prior art teaches, whether a person of ordinary skill in the art would have been motivated to combine references, and whether a reference teaches away from the claimed invention are questions of fact." *Meiresonne v. Google, Inc.*, 849 F.3d 1379, 1382 (Fed. Cir. 2017) (citation omitted).

IGT makes three main arguments: (1) the Board adopted a "new theory" regarding Goldberg's disclosure of a "software authorization agent," which IGT lacked an adequate opportunity to address, IGT Opening Br. at 42–52; (2) the Board erred in finding that the prior-art references, as they would be combined, teach a "gaming software download request message" and "authorization message," *id.* at 53–59; and (3) the Board erred in finding that the prior-art references, as they would be combined, teach the

monitoring function of the software authorization agent, *id.* at 60–66. We reject IGT’s arguments.

A

Goldberg, titled “Network Gaming System,” describes “a method and apparatus for automating the playing [of] games such as blackjack so that they can be played continuously and asynchronously by a potentially large plurality of players.” J.A. 1777 (col. 1, lines 10–16). Figure 3 illustrates one embodiment of its blackjack gaming system:

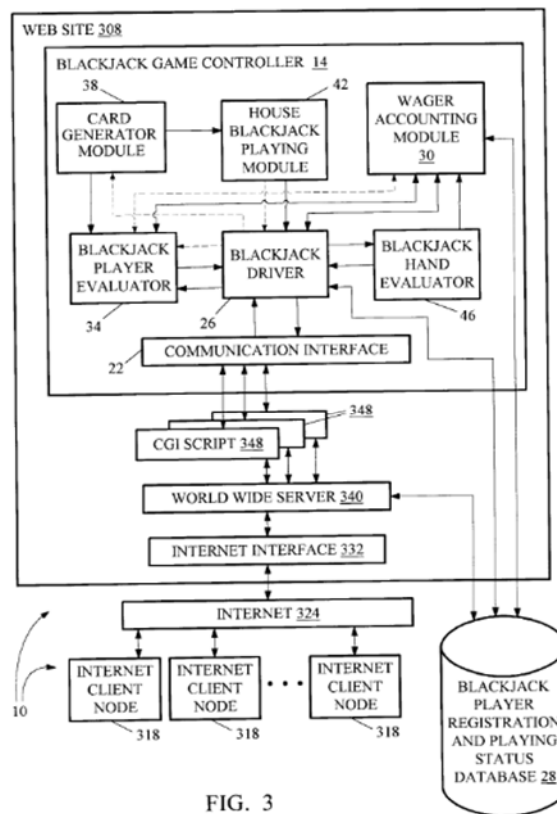
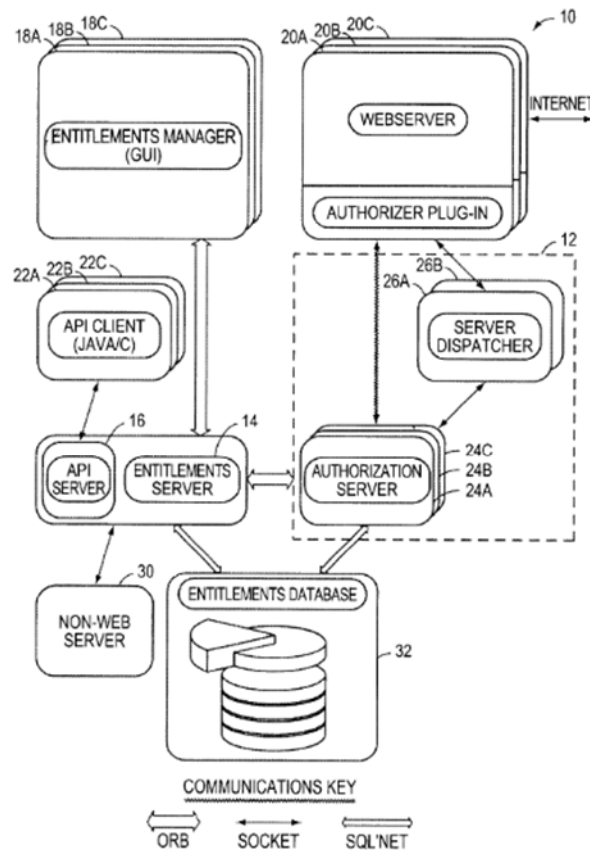


FIG. 3

J.A. 1765 (fig. 3). In that embodiment, players can play blackjack on Internet client nodes 318 by accessing a blackjack game controller 14 through an Internet web site 308, which includes an Internet interface 332, a World Wide Web server 340, and common gateway interface (CGI)

scripts 348. J.A. 1783 (col. 14, lines 32–65). The Internet interface 332 communicates between the remainder of the Internet web site 308 and the Internet 324, including “(a) for validating and/or initiating registration of web site users (e.g., blackjack players) at web site 308; and (b) for interpreting Internet requests for routing and/or activating web site 308 modules that can fulfill such requests.” J.A. 1783 (col. 14, lines 37–45). The latter communication can include the World Wide Web server 340 accessing the database system 28, which—according to another embodiment—stores “information regarding each blackjack player,” to determine the registration identity of a blackjack player. J.A. 1780 (col. 7, line 67, through col. 8, line 2), 1783 (col. 14, lines 45–48). “[U]pon receiving user registration confirmation . . . , the World Wide Web server 340 activates instantiations of modules known as [CGI] scripts [348],” which then “invoke[] the blackjack game controller 14 to process a . . . blackjack request from an Internet client node 318 where a player is playing blackjack” and “construct[] an appropriate Internet response from the output received from the blackjack game controller 14.” J.A. 1783 (col. 14, lines 48–65).

Olden, titled “Security and Access Management System for Web-Enabled and Non-Web-Enabled Applications and Content on a Computer Network,” describes “a computer network in which execution of applications and use of content by users of the computer network is controlled.” J.A. 1835 (col. 1, lines 7–10). Figure 1 illustrates one embodiment of the “architecture for the security and access management system,” J.A. 1836 (col. 3, lines 39–44):



J.A. 1799 (fig. 1). In that embodiment, “the Web servers 20A, 20B, and 20C provide Web-enabled applications and content to computer network users.” J.A. 1836 (col. 4, lines 55–57). The system grants “[a] user . . . rights to an application” by assigning access rights to at least one of the

application's functions. J.A. 1838 (col. 8, lines 44–57). The authorization component 12, which includes an authorization server 24, performs the authorization processing on behalf of the Web server 20. J.A. 1836 (col. 3, lines 53–56).

B

The claims at issue here require a “software authorization agent” that regulates the transfer of “gaming software” between a first and second gaming device. ’089 patent, col. 43, lines 21–43; *id.*, col. 47, line 52, through col. 48, line 7. The Board construed “software authorization agent” as “a device that authorizes (that is approves or rejects) specific transfers of gaming software based on applicable rules, and monitors (that is tracks) these transfers.” J.A. 13–14. IGT argues that the Board relied on portions of Goldberg not adequately identified as such by Zynga in its petition to find that Goldberg teaches the claim-required “software authorization agent.” *E.g.*, IGT Opening Br. at 4, 27, 40–45; IGT Reply Br. at 17–24. Instead of relying on Zynga’s argument that Goldberg’s database 28 is the software authorization agent, IGT argues, the Board “invented a new rationale” that Goldberg’s database 28, driver 26, and wager accounting module 30 collectively disclose the software authorization agent. IGT Opening Br. at 42–43 (citing J.A. 45).

We have reversed the Board where it deprived the patent owner of notice and the opportunity to address “new” arguments, such as where the Board found claims unpatentable by relying on prior art not mentioned by petitioner in the only ground on which the Board instituted an inter partes review, *In re IPR Licensing*, 942 F.3d at 1369–70, or by relying on a prior-art combination not advanced in the petition, *Koninklijke Philips N.V. v. Google LLC*, 948 F.3d 1330, 1335 (Fed. Cir. 2020). But we do not see such reversible error here.

The passage from the final written decision on which IGT relies is from the Board’s discussion of why a relevant

artisan, as Zynga argued, would be motivated to combine Goldberg and Olden. *See* J.A. 40–50. IGT argued that a relevant artisan would not look to Olden to determine how Goldberg’s “ordinary” database 28 might perform authorization or validation operations as required by a “software authorization agent.” *See, e.g.,* J.A. 423–25. As support that Goldberg’s database 28 was “ordinary,” IGT cited to passages in Goldberg describing a blackjack driver 26 and wager accounting module 30 retrieving information from database 28 to confirm player registration. J.A. 424 (citing J.A. 1780 (col. 8, lines 40–46), 1784 (col. 16, lines 53–60), 1785 (col. 17, lines 6–12; col. 18, lines 4–9)).

The Board rejected IGT’s argument. The Board explained that the claimed “software authorization agent” need not be a database and that Goldberg’s database 28, blackjack driver 26, and wager accounting module 30 are an example of Goldberg’s disclosure of a “software authorization agent” with a “rudimentary confirmation process” of “check[ing] status information stored in database system 28, e.g., for the requisite tournament credits, and output[ing] an appropriate confirmation or denial of further tournament play.” J.A. 43–45 (citing J.A. 1785 (col. 17, lines 6–12, 16–28, 39–45); ’089 patent, col. 24, lines 32–36 (explaining that the software authorization agent may be a server, including a database, router, network interface, CPU, memory, or firewall)). The Board then went on to agree with Zynga’s argument that a relevant artisan, in order to implement the “software authorization agent,” would be motivated to combine Goldberg’s “fairly general” description of a “software authorization agent” with Olden’s teachings, particularly of an authorization component 12 with an authorization server that communicates with a separate database to authorize user requests. J.A. 45–49; *see also, e.g.,* J.A. 160–61, 164–65; J.A. 468–71, 484–85.

IGT therefore did not lack notice that the Board might cite Goldberg’s blackjack driver 26 and wager accounting

module 30 in its motivation-to-combine discussion; IGT itself cited those elements in its patent owner response. J.A. 423–25; *Genzyme Therapeutic Products Ltd. Partnership v. Biomarin Pharmaceutical Inc.*, 825 F.3d 1360, 1367 (Fed. Cir. 2016) (holding that a patent owner “cannot plausibly argue that it lacked notice that the Board might cite [prior art references] in its final written decision[]” where patent owner “itself raised the issue . . . in its patent owner response[]”). In the passage IGT cites as evidence of the Board’s purportedly impermissible adoption of a “new” theory, the Board was properly considering, and rejecting, IGT’s own argument that Goldberg’s disclosures about its database 28, blackjack driver 26, and wager accounting module 30 teaches away from combining Goldberg and Olden.

Furthermore, the Board’s analysis was not “new” in a way that deprived IGT of the required notice. Although Zynga did not cite Goldberg’s blackjack driver 26 and wager accounting module 30 in its motivation-to-combine argument, the “thrust” of the Board’s analysis did not depart from Zynga’s argument that a relevant artisan would be motivated to combine Goldberg and Olden to render the “software authorization agent” obvious. *Cf. In re NuVasive*, 841 F.3d at 972 (citation omitted) (explaining that a “new ground” may be found where “the thrust of” the ground changes); *Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1080 (Fed. Cir. 2015) (citation omitted) (same). In making this finding, the Board was “not limited to citing only portions of the prior art specifically drawn to its attention” by Zynga. *In re NuVasive*, 841 F.3d at 971; *see also Corephotonics*, 84 F.4th at 1011. And, as discussed below, the Board did not even cite the blackjack driver 26 and wager accounting module 30 in finding that the prior art teaches the authorization and monitoring functions of the “software authorization agent.” *See, e.g.*, J.A. 53–59.

C

IGT challenges, as unsupported by substantial evidence, the Board’s findings that Goldberg and Olden teach a “gaming software download request message” and “authorization message” that authorize transfers of “gaming software.”³ Specifically, IGT argues that Goldberg’s disclosure of its World Wide Web server 340 accessing its database 28 to determine the *registration of a blackjack player* “merely is a retrieval of data” instead of the required sending of a request, and receiving of an authorization message, to transfer “gaming software.” See IGT Opening Br. at 53–59; IGT Reply Br. at 28–29. Furthermore, IGT argues that a skilled artisan would not seek to ensure that Goldberg operated as intended by applying to Goldberg the disclosures in Olden about request and authorization messages for user access to *applications* or *application functions* because Goldberg is intended to confirm registration of players, not transfers of gaming software. IGT Opening Br. at 57–59. These arguments do not establish a basis for disturbing the Board’s decision.

The Board’s findings that Goldberg and Olden teach the request and authorization messages are supported by

³ IGT’s briefs separately discuss the approval or rejection, by the “software authorization agent,” of “specific transfers of gaming software based on applicable rules,” see, e.g., IGT Opening Br. at 46–47; IGT Reply Br. at 25–26; see also Zynga Response Br. at 57–60, and the claims’ requirement that the “software authorization agent” receives a “gaming software” download or transaction “request message” and sends an “authorization message,” see, e.g., IGT Opening Br. at 53–59; IGT Reply Br. at 28–30; see also Zynga Response Br. at 66–70. IGT has not provided any basis for disturbing the Board’s decision on those grounds if we reject, as we do, the contentions discussed above in text.

substantial evidence. After explaining that the function of sending an authorization message need not be performed by Goldberg’s database 28 alone, the Board considered Olden “[t]o the extent Goldberg may not disclose a request and authorization message.” J.A. 56–57. The Board “agree[d] with [Zynga] and [Zynga’s expert] Mr. [David] Crane, whose testimony is unrebutted on this point, that Olden expressly teaches a request and authorization message.” J.A. 57 (citing J.A. 1698–702 ¶¶ 221–31)). In particular, the Board relied on two passages from Mr. Crane’s declaration. J.A. 57. First, the Board credited Mr. Crane’s testimony that “Olden explains that the ‘authorization server 24 receives an authorization request from . . . an enabled Web server 20.’” J.A. 57 (quoting J.A. 1697 ¶ 217). Second, the Board explained how Figure 1 supports Mr. Crane’s testimony that Olden discloses an “authorization component 12 with authorization server 24 (a ‘software authorization agent’)” that “transmits an ALLOW smart rule result (an ‘authorization message’) back to Web server 20 (‘a first gaming device’),” with that web server “transmit[ting] back to the user’s device (a ‘second gaming device’) the user device requested application or application function (‘gaming software’)” upon receiving that authorization message. J.A. 57–58 (emphasis omitted) (quoting J.A. 1715–16 ¶ 287). This testimony, the Board found, was “supported by express evidence in Olden,” and was “essentially unrebutted on the record.” J.A. 58; *see also* J.A. 57 (citing J.A. 1846 (col. 23, lines 46–49)).

The Board could reasonably read the evidence to teach the “gaming software download request message” and “authorization message,” particularly given that the proper inquiry is not whether Goldberg *by itself* discloses the request and authorization messages but whether Goldberg and Olden in combination do. *See Game & Technology Co. v. Wargaming Group Ltd.*, 942 F.3d 1343, 1352 (Fed. Cir. 2019) (citation omitted) (“The question in an obviousness inquiry is whether it would have been obvious to a person

of ordinary skill in the art to combine the relevant disclosures of the two references, not whether each individual reference discloses all of the necessary elements.”). Similarly, IGT has made no persuasive argument that a relevant artisan would not have applied Olden’s application-based authorization teachings to Goldberg, including the Board-identified teachings about transferring application-specific “gaming software.” *See, e.g.*, J.A. 32–36, 39–40. The Board reasonably found that a relevant artisan would have been motivated to combine Olden’s “user entitlement and authorization system,” which is “intended to be integrated with web-based . . . applications and content that require ‘a security architecture to enable network authorization and to provide secure access control,’” with Goldberg’s “web-based application for games of chance, such as blackjack.” J.A. 42 (citations omitted); *see also, e.g.*, J.A. 40 (citing J.A. 1738 ¶ 408).

D

Making arguments similar to those already summarized in discussing whether the prior art teaches the request and authorization messages, IGT contends that substantial evidence does not support the Board’s finding that Goldberg and Olden teach the monitoring function of the software authorization agent. Goldberg’s teachings about confirming registration of a player, IGT argues, does not “cause a specific transfer [of gaming software] to be ‘monitor[ed]’ or ‘track[ed]’” because user devices in Goldberg “request gameplay operations such as new tournaments, new games, and new cards” instead of “HTML files or their [User Interface (UI)] components.” IGT Opening Br. at 62–63 (second and third alterations in the original); *see also id.* at 60–61. Furthermore, IGT argues, applying Olden’s teaching of monitoring user access to applications to Goldberg would “not render obvious monitoring access to the HTML files or UI components” that constitute “gaming software” under the Board’s construction. *Id.* at 65; *see also id.* at 62, 66.

As an initial matter, IGT's arguments largely fail to respond to the Board's finding that the prior art teaches monitoring of "gaming software." In support of its argument, IGT cites Goldberg's disclosures that its World Wide Web server 340 and database 28 confirm that a request to play is from a registered player and that its blackjack driver 26, within web site 308, processes the player's request and invokes other application modules to process the request as needed. *Id.* at 61–62. Now arguing that "in Goldberg, user devices do not make requests for HTML files or UI components," IGT also cites the portion of the Board's opinion that IGT criticizes as relying on a "new" basis for finding a "software authorization agent" in Goldberg (*i.e.*, the passage in which the Board rejected IGT's motivation-to-combine argument relating to Goldberg's database 28, blackjack driver 26, and wager accounting module 30). *Id.* at 63–65. But the Board did not rely on those disclosures for its finding that the prior art teaches the monitoring function. *See* J.A. 53–55.

Instead, the Board found that Olden teaches the monitoring function of a "software authorization agent," and that finding, we conclude, is supported by substantial evidence. *See* J.A. 53–55. Olden teaches an authorization system that logs information, including whether a specific user was allowed access, what actions an authorization server took in response to user requests, and specific information about the activity (*e.g.*, user validation and application requested). J.A. 54 (citing, *e.g.*, J.A. 1847 (col. 25, line 58, through col. 26, line 29), 1849 (col. 29, lines 44–50)). The Board relied on Olden and Mr. Crane's testimony to find that "Olden's authorization logging system fits squarely into the meaning of 'software authorization agent'" through its monitoring of transfers of gaming software. J.A. 54 (citing J.A. 1692 ¶ 199). On the record as a whole, the Board could rely on the cited evidence to support its finding.

The Board rejected IGT's argument that the prior art does not teach monitoring of "gaming software" because neither Goldberg nor Olden tracks or monitors delivery of web pages and because Olden does not track the content that the application functions generate. J.A. 54–55 (citing J.A. 443–44) ("Logging *the content* of an application, as Patent Owner asserts, is not part of the claim construction."); see IGT Opening Br. at 65–66. The claim limitation, the Board determined, did not "specify any specific informational content or data type" to be logged, so Olden's tracking of the applications requested was sufficient to teach the limitation. J.A. 55. We see no reversible error in the Board's ruling on this point.

Finally, we reject IGT's contention that there "is no teaching or suggestion in the prior art to monitor specific transfers" of Goldberg's web pages (*i.e.*, HTML files). IGT Opening Br. at 66. The Board determined that "gaming software"—a phrase not given a construction, J.A. 14—"encompasses game presentation software components including UI) software," which can be "in the form of CGI scripts and HTML files." J.A. 30; see also J.A. 36, 39–40. The "gameplay operations" that IGT concedes are requested and transmitted by Goldberg are HTML files and thus "gaming software." See J.A. 52 (citing testimony from IGT's expert Dr. Craig Wills that HTML pages include CGI-script generated game configurations); see also J.A. 1686 ¶¶ 174–76 (testimony by Mr. Crane that "Goldberg's HTML" would be understood to be analogous to gaming software that includes "different game presentation software modules"); J.A. 39–40 (explaining that a relevant artisan would understand "gaming software" to include HTML files that facilitate game play). Thus, even if Goldberg requests only "gameplay operations," the "gaming software" requirement is met.

IV

We have considered IGT's remaining arguments and find them unpersuasive. For the foregoing reasons, the decision of the Board is affirmed.

AFFIRMED