

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner,

v.

GEOSCOPE TECHNOLOGIES PTE. LTD.
Patent Owner

Case No. IPR2023-01213
U.S. Patent No. 9,097,784

PATENT OWNER'S PRELIMINARY RESPONSE

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35 U.S.C. § 314(a).....	<i>passim</i>

LIST OF EXHIBITS

Exhibit No.	Petitioner's Exhibits
1001	U.S. Patent No. 9,097,784, issued on July 14, 2009 (“the ’784 Patent”)
1002	File History of U.S. Patent Application No. 14/518,868, filed on October 20, 2014 (“the ’868 Application”)
1003	U.S. Provisional Application No. 60/899,379, filed on February 5, 2007
1004	U.S. Patent No. 6,381,533, issued on April 30, 2002 to A. Crane et al. (“Crane”)
1005	U.S. Patent Publication No. 2003/0064735, published on April 3, 2003 to D. Spain et al. (“Spain”)
1006	Amendment filed in U.S. Patent Application No. 12/026,372 on July 28, 2014
1007	Amendment filed in U.S. Patent Application No. 12/026,372 on October 3, 2014
1008	Declaration of David Hilliard Williams
1009	Curriculum Vitae of David Hilliard Williams
1010	Geoscope’s Preliminary Infringement Contentions dated April 7, 2023 (without appendices), <i>Geoscope Technologies Pte. Ltd. v. Google LLC f/k/a Google Inc.</i> , Civ. Action No. 1:22-cv-01331 (EDVA)
1011	Appendix E to Geoscope’s Preliminary Infringement Contentions dated April 7, 2023, <i>Geoscope Technologies Pte. Ltd. v. Google LLC f/k/a Google Inc.</i> , Civ. Action No. 1:22-cv-01331 (EDVA)

1012	Complaint dated November 22,2022, <i>Geoscope Technologies Pte. Ltd. v. Google LLC f/k/a Google Inc.</i> , Civ. Action No. 1:22-cv-01331 (EDVA) filed on November 22, 2022 (“the Related Litigation”)
1013	Preliminary Identification of Asserted Claims dated March 27, 2023, <i>Geoscope Technologies Pte. Ltd. v. Google LLC f/k/a Google Inc.</i> , Civ. Action No. 1:22-cv-01331 (EDVA) filed on November 22,2022
1014	Not Assigned
1015	Not Assigned
1016	Difference comparison between the text of the Specifications of the Dressler and Spain
1017	U.S. Patent No. 7,433,695, issued on October 7, 2008 to S. Gordon et al. (“Gordon”)
1018	U.S. Patent No. 7,561,104, issued on July 14, 2009 to M. Alles et al. (“the ’104 patent”)
1019	File History of Reexamination Control No. 90/012,694 (“the ’694 Reexamination”)
1020	Difference comparison between the text of the Specifications of the Gordon and Spain
1021	U.S. Patent No. 7,460,505, issued on December 2, 2008 to D. Spain (“the ’505 Patent”)
1022	Difference comparison between the text of the Specifications of the ’505 Patent and Spain
1023	Supplemental Stipulation Regarding Agreed Upon Claim Constructions dated May 25, 2023, <i>Geoscope Technologies Pte Ltd. v. Google LLC f/k/a Google Inc.</i> , Civ. Action No. 1:22-cv-01331 (EDVA) filed on November 22,2022
1024	Not Assigned

1025	Google LLC’s Opening Claim Construction Brief dated May 26,2023, <i>Geoscope Technologies Pte Ltd. v. Google LLC f/k/a Google Inc.</i> , Civ. Action No. 1:22-cv-01331 (EDVA) filed on November 22, 2022
1026	Not Assigned
1027	Second Supplemental Stipulation Regarding Agreed Upon Claim Constructions dated July 10, 2023, <i>Geoscope Technologies Pte. Ltd. v. Google LLC f/k/a Google Inc.</i> , Civ. Action No. 1 :22-cv-01331 (EDVA) filed on November 22, 2022
1028	Claim Construction Memorandum Opinion & Order dated July 79,2023, <i>Geoscope Technologies Pte. Ltd. v. Google LLC f/k/a Google Inc.</i> , Civ. Action No. 1:22-cv-01331 (EDVA) filed on November 22, 2022
	Patent Owner’s Exhibits
2001	Declaration of Christopher M. Gerson in Support of Patent Owner’s Motion for Pro Hac Vice Admission of Christopher M. Gerson Under 37 C.F.R. § 42.10(c)
2002	<i>Not Assigned</i>
2003	Memorandum Opinion on Google’s Motion for Judgment on the Pleadings on Patent Eligibility dated September 18, 2023, <i>Geoscope Technologies Pte. Ltd. v. Google LLC</i> , Civ. Action No. 1:22-cv-01331 (EDVA)
2004	Memorandum Opinion on Apple’s Motion for Judgment on the Pleadings on Patent Eligibility dated September 18, 2023, <i>Geoscope Technologies Pte. Ltd. v. Apple Inc.</i> , Civ. Action No. 1:22-cv-01373 (EDVA)
2005	Final Judgment dated October 6, 2023, <i>Geoscope Technologies Pte. Ltd. v. Google LLC</i> , Civ. Action No. 1:22-cv-01331 (EDVA)
2006	Final Judgment dated October 5, 2023, <i>Geoscope Technologies Pte. Ltd. v. Apple Inc.</i> , Civ. Action No. 1:22-cv-01373 (EDVA)

2007	Order dated June 26, 2023, <i>Geoscope Technologies Pte. Ltd. v. Google LLC</i> , Civ. Action No. 1:22-cv-01331 (EDVA)
2008	Email from Saunak Desai to Stephen E. Noona, “Geoscope v. Google - Claim Narrowing” (June 12, 2023)
2009	Claim Construction Memorandum Opinion & Order dated July 19, 2023, <i>Geoscope Technologies Pte. Ltd. v. Apple Inc.</i> , Civ. Action No. 1:22-cv-01373 (EDVA)
2010	Order dated June 26, 2023, <i>Geoscope Technologies Pte. Ltd. v. Apple Inc.</i> , Civ. Action No. 1:22-cv-01373 (EDVA)
2011	Defendant Google LLC’s Final Invalidity Contentions dated July 3, 2023, <i>Geoscope Technologies Pte. Ltd. v. Google LLC</i> , Civ. Action No. 1:22-cv-01331 (EDVA)
2012	Geoscope’s Opening Appeal Brief dated November 17, 2023, <i>Geoscope Technologies Pte. Ltd. v. Google LLC, Apple Inc.</i> , Case Nos. 24-1003 (Lead) 24-1018 (member) (Fed. Cir.)
2013-2017	<i>Not Assigned</i>
2018	Stipulation of Partial Judgment of Noninfringement and Invalidity dated August 22, 2023, <i>Geoscope Technologies Pte. Ltd. v. Google LLC</i> , Civ. Action No. 1:22-cv-01331 (EDVA)
2019	Order dated September 18, 2023, <i>Geoscope Technologies Pte. Ltd. v. Google LLC</i> , Civ. Action No. 1:22-cv-01331 (EDVA)
2020	Partial Judgment dated September 18, 2023, <i>Geoscope Technologies Pte. Ltd. v. Google LLC</i> , Civ. Action No. 1:22-cv-01331 (EDVA)
2021	Stipulation of Partial Judgment of Noninfringement and Invalidity dated August 15, 2023, <i>Geoscope Technologies Pte. Ltd. v. Apple Inc.</i> , Civ. Action No. 1:22-cv-01373 (EDVA)
2022	Order dated September 18, 2023, <i>Geoscope Technologies Pte. Ltd. v. Apple Inc.</i> , Civ. Action No. 1:22-cv-01373 (EDVA)

2023	Partial Judgment dated September 18, 2023, <i>Geoscope Technologies Pte. Ltd. v. Apple Inc.</i> , Civ. Action No. 1:22-cv-01373 (EDVA)
2024	Docketing Statement dated October 16, 2023, <i>Geoscope Technologies Pte. Ltd. v. Google LLC</i> , Case No. 24-1003 (Fed. Cir.)

I. INTRODUCTION

The Board should deny the Petition for *Inter Partes* Review of U.S. Patent No. 9,097,784 (“’784 Patent”) because Petitioner Google LLC (“Petitioner”) fails to demonstrate a reasonable likelihood that any challenged claim is not patentable.

As an initial matter, the Board should exercise its discretion to deny the Petition under § 314(a). Two district court litigations involving the ‘784 Patent have already resulted in final judgments based on, among other things, the district court’s ruling that the claims of the ‘784 Patent are indefinite pursuant to 35 U.S.C. § 112. These litigations are *Geoscope Technologies Pte. Ltd. v. Google LLC.*, Civ. Action No. 1:22-cv-01331-MSN (E.D. Va.) (“Google Action”) and *Geoscope Technologies Pte. Ltd. v. Apple Inc.*, Civ. Action No. 1:22-cv-01373-MSN (E.D. Va.) (“Apple Action”). Moreover, by the time the district court entered final judgment, the parties and the court had already invested substantial resources into the actions, completing *Markman*, fact discovery, and expert discovery. Under similar circumstances, the Board has recognized that institution would not be an efficient use of its time and resources. Institution would be particularly inefficient here because Patent Owner has not appealed the district court’s ruling that the ‘784 Patent claims are indefinite. Further, the Petition falls far short of presenting a “compelling unpatentability challenge” that would warrant institution despite this inefficiency.

Even if the merits are considered, the Petition still fails. At a minimum,

Petitioner fails to show that its cited art teaches or suggests “determining a status of [a] wireless device” and “determining from said status [of said wireless device] a most likely one of said plural streets upon which said wireless device is located.” The disclosure that Petitioner relies on is inconsistent with the language of the challenged claims of the ’784 Patent and the purpose of the patented invention. Thus, the Board should deny institution.

II. THE BOARD SHOULD EXERCISE ITS DISCRETION AND DENY THIS PETITION UNDER §314(A)

The Board should exercise its discretion to deny institution under § 314(a) because institution would be an “inefficient use of Board resources.” *NHK Spring Co. v. Intri-Plex Techs., Inc.* IPR2018-00752, Paper 8 at 19-20 (PTAB Sept. 12, 2018). As explained in further detail below, two district court litigations involving the ’784 Patent are not just at advanced stages but, in fact, have ***already resulted in final judgments*** based on, among other things, the district court’s ruling that multiple terms in the independent claims of the ’784 Patent are indefinite pursuant to 35 U.S.C. § 112.

In *NHK Spring Co.*, the Board denied institution of an *inter partes* review under § 314(a) where a parallel district court proceeding was nearing its final stages, and a PTAB proceeding would not conclude until about six months after the district court trial was scheduled. *NHK Spring Co.*, IPR2018-00752, Paper 8 at 19-21. In so reasoning, the Board set the precedent that parallel court proceedings must be

considered when determining whether the institution of an *inter partes* review is consistent with the objective of the America Invents Act (“AIA”) to “provide an effective and efficient alternative to district court litigation.” *Id.*

Building on *NHK Spring Co.*, in *Apple Inc. v. Fintiv, Inc.*, the Board identified specific factors relating to “whether efficiency, fairness, and the merits support the exercise of authority to deny institution in view of an earlier trial date in the parallel proceeding.” IPR2020-00019, Paper 11 at 6 (PTAB Mar. 20, 2020) (precedential).

The *Fintiv* factors include:

1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
2. proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision;
3. investment in the parallel proceeding by the court and the parties;
4. overlap between issues raised in the petition and in the parallel proceeding;
5. whether the petitioner and the defendant in the parallel proceeding are the same party; and
6. other circumstances that impact the Board’s exercise of discretion, including the merits.

Id.

The Director provided further guidance on the application of the *Fintiv* precedent in a June 21, 2022 Memorandum regarding an Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court

Litigation (“Guidance Memo”) and *CommScope Techs. LLC v. Dali Wireless, Inc.*, IPR2022-01242, Paper 23 (PTAB Feb. 27, 2023) (precedential). The Director set forth a “compelling merits test” under which the Board—if it has found that *Fintiv* factors 1-5 favor discretionary denial—must assess whether a petition presents a “compelling unpatentability challenge” before discretionarily denying institution. *CommScope*, IPR2022-01242, Paper 23 at 3-5. As the Director explained, “the compelling merits standard is a higher standard than the standard for institution set by statute.”¹ *Id.* at 3. A reasonable likelihood that the petitioner would prevail with respect to at least one challenged claim does not suffice to demonstrate that a challenge is “compelling.” Rather, a “compelling” challenge is one “in which the evidence, if unrebutted at trial, would plainly lead to a conclusion that one or more claims are unpatentable by a preponderance of the evidence” such that “it is **highly likely** that the petitioner would prevail with respect to at least one challenged claim.” *Id.* at 3-4 (emphasis added). This is a “high standard” (*see AviaGames, Inc. v. Skillz Platform, Inc.*, IPR2022-00530, Paper 14, at 3, 5 (PTAB Mar. 2, 2023)) and the

¹ Institution of an IPR is authorized only when “the information presented in the petition ... and any response ... shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). *CommScope*, IPR2022-01242, Paper 23 at n.3.

Board must explain its reasoning in determining whether the merits are compelling. *CommScope*, IPR2022-01242, Paper 23 at 4-6.

The *Fintiv* factors weigh strongly in favor of discretionary denial and Petitioner’s challenge does not meet even the statutory standard, let alone the higher “compelling merits” standard. On July 19, 2023, the district court issued its claim construction opinion which addressed indefiniteness arguments raised by Petitioner. Ex. 1028. The district court ruled that the terms “in proximity” and “determining said most likely street as a first one of said plural geographic locations” in the claims of the ’784 Patent are indefinite. *Id.* at 24-30. Shortly thereafter, on August 22, 2023, Petitioner and Patent Owner stipulated to partial judgment of invalidity of the ’784 Patent in view of the district court’s ruling. Ex. 2018 ¶¶ 5, 7.² The district court accepted the stipulation on September 18, 2023 (Ex. 2019) and partial judgment was entered on the same day (Ex. 2020). This stipulation of invalidity of the ’784 Patent and partial judgment were also entered in the Apple Action. Ex. 2021 ¶¶ 5, 7; Ex.

² Although the stipulation refers only to claim 11 of the ’784 Patent, as that was the sole asserted claim at the time of the district court’s ruling, the terms found indefinite are part of every claim of the ’784 Patent as they are found in both independent claims. Ex. 1001 at cls. 1, 12 (reciting “in proximity” and “determining said most likely street as a first one of said plural geographic locations”).

2022; Ex. 2023.

On September 18, 2023, the district court issued its ruling that other asserted claims in the Google and Apple Actions are unpatentable under 35 U.S.C. § 101. After doing so, the district court entered final judgment on October 5, 2023 in the Apple Action and on October 6, 2023 in the Google Action. Exs. 2005, 2006. Accordingly, both actions are closed pending Patent Owner’s appeal of the district court’s § 101 ruling to the Federal Circuit. However, as explained further below, ***Patent Owner has not appealed the district court’s indefiniteness ruling as to the ’784 Patent***, making discretionary denial even more appropriate. *See infra* § II.f.

The Board has recognized that the *Fintiv* factors strongly favor denial of institution where the challenged patent has already been invalidated by the district court. In *AviaGames*—which is analogous to the present case—the Board denied institution after weighing the *Fintiv* factors “largely because the claims of the challenged patent have been determined to be invalid” explaining that “the interests of efficiency and integrity of the system would be best served by invoking 35 U.S.C. § 314(a) to deny institution” in view of the district court’s ruling under § 101.³

³ Although *AviaGames* (and *Snap*, as described below) addressed a situation where challenged claims were found invalid by a district court based on § 101, its principles are equally applicable here where the district court has ruled that the ’784 Patent

AviaGames, IPR2022-00530, Paper 12 at 11-15. Although the Board initially exercised its discretion to deny institution based on the *Fintiv* factors alone, the Director remanded the matter to the Board to assess “whether the record before the Board prior to institution presents a compelling, meritorious challenge,” stating that “[i]f the Board finds the record does not rise to this high standard, the Board will exercise discretion to deny institution.” *AviaGames*, IPR2022-00530, Paper 14 at 5-6. Importantly, the Director did not disagree with or take issue with the Board’s analysis of the *Fintiv* factors in *AviaGames*. On remand, the Board determined that the Petition did not meet the “compelling merits” standard and discretionarily denied institution. *AviaGames*, IPR2022-00530, Paper 15 at 2-3.

Similarly, in *Snap Inc. v. Blackberry Ltd.*, a district court had issued an order finding all claims of the challenged patent invalid under § 101; as a result, the Board denied institution, in large part because it did “not consider it an efficient use of Board resources to institute an *inter partes* review where all remaining Challenged Claims have already been adjudicated by an Article III court.” IPR2020-00391, Paper 8, 17 (PTAB July 13, 2020).

claims are invalid based on indefiniteness under § 112. In both cases, the district court ruled that the challenged claims were invalid prior to institution—the statutory bases for the invalidity ruling is not a meaningful difference.

As discussed below, the *Fintiv* factors favor discretionary denial here even more than they did in *AviaGames* and *Snap*. And because Petitioner has failed to meet the high standard required by the “compelling merits test,” the Board should exercise its discretion to deny institution under § 314(a).

A. Factor 1: The district court case has concluded, and cannot be stayed

“A district court stay of the litigation pending resolution of the PTAB trial allays concerns about inefficiency and duplication of efforts,” and thus “weigh[s] against exercising the authority to deny institution under *NHK*.” *Fintiv*, IPR2020-00019, Paper 11 at 6.

Although Petitioner contends it “will seek a pre-institution stay” (Pet. at 54), it has not filed any motion to stay the Google Action in view of the instant Petition. Nor could it because the district court proceedings are closed pending Patent Owner’s appeal of the district court’s § 101 ruling to the Federal Circuit. Accordingly, contrary to Petitioner’s assertion, there is no need to “predict whether the district court will stay the related litigation”—the district court *cannot* stay the litigation given the posture. Pet. at 54. Thus, as the Board found in *Snap*, this factor weighs in favor of exercising discretion to deny institution. *Snap*, IPR2020-00391, Paper 8 at 13; *see also AviaGames*, IPR2022-00530, Paper 12 at 12 (finding that *Fintiv* Factor 1, if weighed, favors denial because “the District Court’s invalidity determination has already been made”).

B. Factor 2: The Board’s final written decision deadline would be more than one year after the district court issued its indefiniteness ruling

As demonstrated by *NHK* and its progeny, “[i]f the court’s trial date is earlier than the projected statutory deadline, the Board generally has weighed this fact in favor of exercising authority to deny institution under *NHK*.” *Fintiv*, IPR2020-00019, Paper 11 at 9.

The district court completed its consideration of the ‘784 Patent and reached its decision in July 2023, months before the Board would even institute review, much less issue a final written decision. There is no further scheduled or proposed trial date in the Google Action. In *AviaGames*, under the same circumstances, the Board found that that this factor “weighs *heavily* in favor of denying institution” because “the District Court has completed its consideration of the [challenged patent].” *AviaGames*, IPR2022-00530, Paper 12 at 12-13 (emphasis added). The Board in *Snap* came to the same conclusion, finding that this factor weighed in favor of denying institution because the Board’s statutory deadline for the final written decision would be “one year after the district court issued final judgment.” *Snap*, IPR2020-00391, Paper 8 at 13. For the same reasons, the Board should find that this factor weighs in favor of denial of institution.

C. Factor 3: There has been substantial investment by the parties and district court in the litigation, culminating in a final decision by the court

“[I]f, at the time of the institution decision, the district court has issued substantive orders related to the patent at issue in the petition, this fact favors denial.”

Fintiv, IPR2020-00019, Paper 11 at 9-10.

The Google Action is concluded as a result of the district court’s claim construction ruling—including its indefiniteness ruling for the ’784 Patent—and § 101 ruling as to other asserted patents. At least the claim construction ruling is a substantive order related to the ’784 Patent, which favors denial of institution.⁴ Ex. 1028 at 24-30. Based on similar facts, the Board in *AviaGames* and *Snap* found this factor to weigh in favor of denial of institution. *AviaGames*, IPR2022-00530, Paper 12 at 13 (“The District Court’s invalidity determination is a substantive order related to the ’602 patent. We determine this factor weighs in favor of denying institution.”) (citations omitted); *Snap*, IPR2020-00391, Paper 8 at 13 (finding that *Fintiv* Factor 3 supports denial of institution because “[t]he parties’ and district court’s investment

⁴ Although Petitioner also contended that the claims of the ’784 Patent are unpatentable under § 101, the district court’s § 101 ruling did not address the ’784 Patent due to the parties’ prior stipulation of invalidity in view of the district court’s indefiniteness ruling. Ex. 2003 at 1 n.1.

in the district court case was sufficient to already reach a final adjudication.”).

Even before the district court issued its claim construction and § 101 rulings, the parties and district court had already made a substantial investment in the litigation. Fact and expert discovery in the Google Action were completed prior to the district court’s § 101 ruling and nearly completed even before the Petition was filed on August 9, 2023. *See* Ex. 2007 (setting July 3, 2023 deadline for opening expert reports and August 18, 2023 deadline for close of expert discovery). This completed discovery included extensive written discovery, numerous depositions of fact and expert witnesses, and expert reports.

Contrary to Petitioner’s assertions of diligence (*see* Pet. at 55-56), Petitioner waited until *after* the parties and the court invested significant resources in the case to file the Petition. Petitioner contends that it “filed its Petition less than three months after being made aware of the full set of asserted claims.” *Id.* This contradicts the record. The Petition challenges every asserted claim identified in Patent Owner’s preliminary identification of asserted claims, served on March 27, 2023. Ex. 1013; *see also* Pet. at 6 (identifying challenged claims). Although Patent Owner narrowed its assertion of claims on June 12, 2023, that apparently had no bearing on the Petition, which challenges far more claims than were identified as asserted on that date. Ex. 2008. Thus, Petitioner’s contention that its purported “diligence in filing its Petition outweighs any investment” in the litigation is incorrect. Additionally,

Petitioner filed the Petition after the district court had already ruled in its favor on its indefiniteness arguments.

Moreover, the district court and Patent Owner also made a substantial investment in the Apple Action, another litigation involving the '784 Patent.⁵ The same substantive orders—a *Markman* order and § 101 ruling—were issued by the district court in the Apple Action. Exs. 2004, 2009. And fact and expert discovery were also completed in the Apple Litigation prior to the district court's § 101 ruling in September 2023. Ex. 2010 (setting July 3, 2023 deadline for opening expert reports and August 18, 2023 deadline for close of expert discovery). Again, Petitioner chose to file the Petition *after* these parties and the district court invested

⁵ Although Petitioner is not a party to the Apple Action, the Board has recognized that discretionary denial under the *Fintiv* factors can be based on a district court litigation involving the same challenged patent even if Petitioner is not a party to that case. For example, in *Mylan Laboratories Ltd. v. Janssen Pharmaceutica NV*, IPR2020-00440, Paper 17 (PTAB Sept. 16, 2020), the Board denied institution after evaluating the *Fintiv* factors for two related litigations involving the challenged patent—one between the patent owner and the petitioner (referred to as the “Mylan litigation”) and one between the patent owner and a different defendant (referred to as the “Teva litigation”). *Id.* at 9-11, 25.

substantial resources in the case.

Thus, even aside from the district court's substantive claim construction ruling related to the '784 Patent, there has been substantial investment by the parties and the district court in the Google Action (and the Apple Action). Accordingly, in this proceeding, this factor weighs even more heavily in favor of denying institution than it did in *AviaGames* and *Snap* where the Board found that the district court's § 101 ruling alone was sufficient to conclude that this factor weighs in favor of denying institution.

D. Factor 4: The '784 Patent was found to be invalid by another tribunal and, in any event, there is substantial overlap between issues raised in the petition and in the district court

Fintiv states that “if the petition includes the same or substantially the same claims, grounds, arguments, and evidence as presented in the parallel proceeding, this fact has favored denial,” and if “other circumstances weigh against redoing the work of another tribunal, the Board may, nonetheless, exercise the authority to deny institution.” *Fintiv*, IPR2020-00019, Paper 11 at 12, 14.

In *AviaGames*, the Board determined that the fact that “the challenged patent ha[d] already been found to be invalid by another tribunal” weighed in favor of exercising discretion to deny institution. *AviaGames*, IPR2022-00530, Paper 12 at 14. For at least the same reason, the Board should find the same here.

Even apart from the district court's indefiniteness ruling, the primary prior art

reference relied on by Petitioner for this proceeding—Crane—is also relied on by Petitioner in the Google Action. Ex. 2011 at 26 (identifying Crane as prior art asserted against the '784 Patent in Petitioner's Final Invalidity Contentions in the Google Action). Thus, there is significant overlap between Petitioner's invalidity arguments in this proceeding and its invalidity arguments in the district court. Further, the record pertaining to these invalidity arguments has already been developed in the district court, including through hundreds of pages of expert reports. In any event, the district court has already ruled that the claims of the '784 Patent are invalid as indefinite and Patent Owner has not appealed that ruling. Petitioner does not address this factor—and the clear overlap in arguments—beyond stating that it “reserves the right” to file a stipulation in the Google Action. Pet. at 56. But the Google Action is closed pending Patent Owner's appeal of other issues that do not involve the '784 Patent.

It is an inefficient use of the Board's resources to adjudicate the validity of the '784 Patent where the district court has already done it. And even if considering only the validity of the '784 Patent under §§ 102 and 103, it is an inefficient use of the Board's resources to develop a record that has already been developed in the Google Action. Thus, this factor weighs in favor of denying institution.

E. Factor 5: Petitioner and the defendant in the district court litigation are the same party

The petitioner here and the defendant in the district court litigation are both

Google LLC—in other words, identical. This was true in *Fintiv*, *Snap*, and *AviaGames*. Therefore, this factor weighs in favor of denying institution.

F. Factor 6: Other circumstances weigh in favor of exercising discretion to deny institution, including the merits

The “factors considered in the exercise of discretion” are part of a “balanced assessment of all the relevant circumstance in the case, including the merits.” *Fintiv*, IPR2020-00019, Paper 11 at 14. “[I]f the merits of the grounds raised in the petition are a closer call, then that fact has favored denying institution when other factors favoring denial are present.” *Id.* at 15.

As discussed in the merits sections below, each ground is lacking at least because Crane and Spain fail to teach the “determining a status of [a] wireless device” and “determining from said status [of said wireless device] a most likely one of said plural streets upon which said wireless device is located” limitations. *Infra* § VII. Thus, at best, the merits in this case fall into the camp of a “closer call,” not in Petitioner’s favor. At a minimum, the merits fall far short of satisfying the “compelling merits test” which presents a “higher standard than the standard for institution set by statute,” requiring that it be “highly likely that the petitioner would prevail with respect to at least one challenged claim.” *CommScope*, IPR2022-01242, Paper 23 at 3-5.

Additionally, in *AviaGames*, the Board explained in connection with this factor that “on balance, the District Court’s invalidity determination is the most

important relevant circumstance and, as the challenged patent has already been found to be invalid, this factor favors denial of institution.” *AviaGames*, IPR2022-00530, Paper 12 at 14-15. The same is true here—the district court has already found the challenged patent to be invalid and, for the same reason as in *AviaGames*, this weighs in favor of denying institution.

There is an even stronger case for denial of institution here because Patent Owner has ***not*** appealed the district court’s indefiniteness ruling invalidating every claim of the ’784 Patent. The district court ruled that the terms “in proximity” and “determining said most likely street as a first one of said plural geographic locations” in the claims of the ’784 Patent are indefinite. *Id.* at 24-30. These terms are found in both independent claims of the ’784 Patent. Ex. 1001 at cls. 1, 12. Patent Owner’s appeal is only directed to reversal of the district court’s § 101 ruling for certain claims of other asserted patents. Ex. 2024 (Docketing Statement for Patent Owner’s appeal indicating that the ’784 Patent is not at issue on appeal); *see also* Ex. 2012 at 8. Patent Owner cannot seek reversal as to district court’s indefiniteness ruling as it has already filed the opening brief in its appeal (Ex. 2012) and the deadline for filing any other notice of appeal passed no later than November 6, 2023. Fed. R. App. P. 4 (“In a civil case ... the notice of appeal required by Rule 3 must be filed with the district clerk within 30 days after entry of the judgment or order appealed from.”). Thus, the district court’s indefiniteness ruling as to the ’784 Patent is truly final—it

can no longer be appealed to the Federal Circuit.

This is important because, in *AviaGames*, the Director explained that the Board should ***terminate an already-instituted IPR*** if, after institution, the Federal Circuit affirmed the district court’s invalidity ruling:

That said, should the district court’s invalidity judgment be upheld on appeal, ***the parallel proceedings at the Board would impose additional burdens and costs on the parties, including the Patent Owner, and this tribunal***. If the Board institutes an IPR after a compelling merits analysis, and if the invalidity judgment under 35 U.S.C. § 101 of the district court is affirmed in a final, non-appealable judgment by the Federal Circuit, this proceeding ***shall be terminated***.

AviaGames, IPR2022-00530, Paper 14 at 5-6 (emphasis added).

The Director acknowledged that it is inefficient for the Board proceed—even after institution—with an IPR on claims subject to a final, non-appealable judgment of invalidity. Although the Director’s instruction refers to a final, non-appealable judgment by the Federal Circuit, the same principle is applicable here because the claims of the ’784 Patent are ***already*** subject to a final, non-appealable judgment of invalidity. Accordingly, institution is particularly inefficient here because it would require the Board to address the validity of eight challenged claims that have already been held invalid in a final, non-appealable judgment.

Because institution of any ground raised in the Petition would be an inefficient use of the Board’s resources—as evidenced by all six *Fintiv* factors—and the

Petition fails to satisfy the “compelling merits test,” the Board should exercise its discretion under § 314(a) to deny institution.

III. OVERVIEW OF THE '784 PATENT

The '784 Patent is directed to methods and systems for generating a calibration database that can be used in conjunction with known map data for determining the location of a mobile device. Ex. 1001 at cl. 1. The claimed invention of the '784 Patent uses map data to verify and improve calibration data that can later be used for geolocation of mobile devices. *Id.* at 3:39-50. Measurements made as part of generating calibration data may have errors based on, for example, malfunctions of equipment or signal degradation at particular times. *Id.* at 1:25-37. These errors can cause inaccuracies in the resulting calibration data which can, in turn, cause inaccuracies in the geolocation of a mobile device.

The inventions of the '784 Patent improved on conventional methods for geolocation using network signals by, for example, using the locations of streets in an area (and ancillary information about those streets) as supplemental information to check the integrity of the calibration data. Contrary to prior art systems, the '784 Patent inventively employed the use of additional geographic information regarding the locations of streets to assess and correct errors in the calibration data. Accordingly, the '784 Patent teaches: “Ground truth data observed from a data collection device (i.e., a GPS receiver) may be collected and stored in a calibration

database and compared to a street database to modify and enhance the calibration data for increased accuracy. Increasing the accuracy of the ground truth data may in turn provide more accurate location results.” *Id.* at 3:23-28. Similarly, the ’784 Patent explains: “In a geographical area that contains multiple streets, highways, etc. having corresponding intersections, there may be a probability of collecting erroneous location point data regardless of the type of data collection device. A street database may be used as a supplemental data source to compare and/or check the integrity of collected location data.” *Id.* at 3:39-44.

The ’784 Patent further explains specific, exemplary ways in which a “street database” can be used to check and correct errors in calibration data. *Id.* at 4:7-67. As taught by the ’784 Patent, this includes comparing a progression of measurements to a likely path derived from a street database showing, for example, “the direction of one-way streets, off-street territories, etc.” *Id.* at 3:44-48, 4:19-28.

IV. SUMMARY OF THE REFERENCES ASSERTED IN THE PETITION

A. Crane

Crane describes a “data collection system and method [that] match the positions of one or more cellular phones, or other types of wireless phones, to data indicating the locations of roads in a geographic area to derive data about phones located in vehicles traveling along roads.” Ex. 1004 at Abstract. Crane uses a “cellular phone location determining system” to output data “identifying [a] phone,

the position (e.g., geographic coordinates, relative coordinates, etc.), and a time stamp (e.g., the absolute or relative time at which the identified cellular phone as at the identified position).” *Id.* at 3:16-32. Crane does not describe the “cellular phone location determining system” with any specificity, instead stating that “[a]ny such technology that is presently available or that becomes available in the future” for determining the location of a cellular phone “may be suitable.” *Id.* at 2:66-3:13.

Crane explains that the a “data collection system 200 uses the data 140 collected by the cellular phone location determining system 104 in conjunction with the data 170” from a “geographic database 172.” *Id.* at 3:49-52. This “geographic database 172” includes data “representing the coordinates of points along [] roads.” *Id.* at 3:45-48. The “data collection system 200 matches the acquired cellular phone position data 140 to the locations of roads 152 represented by the data 170 in the geographic database 172.” *Id.* at 3:52-55. Crane further explains that cell phone position data is matched to the locations of particular roads based on an optional process that “computes a distance 270 between each of the locations 130 of the phone” and “straight dashed lines 266 which represent the roads.” *Id.* at 4:17-20. “If the distances 270 are sufficiently small” the cellular phone is assumed to be traveling along a road. *Id.* at 4:20-22.

B. Spain

Spain describes a “method for determining the location of a mobile unit” using

“a fingerprint database that contains a number of fingerprints along with their corresponding location identities.” Ex. 1005 at Abstract, [0047]. Spain issued to Polaris Wireless, Inc. as U.S. Patent No. 6,944,465, which was considered by the Examiner—among many other related Polaris Wireless patents—during prosecution of the ’784 Patent. Ex. 1001 at page 2.

Figure 10 of Spain (reproduced below) shows the structure of the fingerprint database, which includes “Lat and Long fields [that] indicate the latitude and longitude of the location to which the fingerprint corresponds” and “the time at which the fingerprint was captured.” Ex. 1005 at [0099].

501

Fingerprint Database					
No.	Lat.	Long.	Time	Fingerprint	Description
1					
2					
3					
4					
5					
6					
...					
L					

Fig. 10

As used in Spain, “fingerprint” refers to “a predetermined combination of observable RF spectral parameters.” *Id.* at [0035]. Spain describes building the fingerprint database by “taking off-line snapshots of fingerprints at various locations” or “taking fingerprint measurements at predetermined locations and using

intelligent algorithms that interpolate the fingerprints at all locations in between the sampled locations.” *Id.* at [0100]-[0101]. Thus, the interpolation described in Spain is merely for the purpose of filling in missing fingerprint measurements at predetermined locations. In other words, the locations themselves are determined *a priori* and then can be filled in with “fingerprint measurements” or interpolations of such measurements. *Id.*

Spain further describes that the “complete grid of locations for the cellular service area” can be used as training data to improve the accuracy of the fingerprint database using “learning/training techniques.” *Id.* at [0054]-[0055]. Although Spain provides scant detail on the “learning/training techniques,” Spain explains that “[p]osition will be used as the input value, while signal strength will be used as the target value.” *Id.* at [0054].

V. LEVEL OF ORDINARY SKILL IN THE ART

Patent Owner adopts Petitioner’s definition of a person of ordinary skill in the art (“POSITA”) for the purposes of this Preliminary Response. Patent Owner reserves the right to present arguments on the definition should the Petition be instituted.

VI. CLAIM CONSTRUCTION

Patent Owner does not dispute Petitioner’s statement on claim construction for the purposes of this Preliminary Response. Patent Owner reserves the right to

present arguments on the constructions should the Petition be instituted. Patent Owner further notes that, as Petitioner recognizes, the district court in the Google and Apple Actions found the terms “in proximity” and “determining said most likely street as a first one of said plural geographic locations” to be indefinite. Pet. at 16-17. As explained above, particularly because Patent Owner has not appealed that ruling, the Board should deny institution. *See supra* § II.

VII. PETITIONER FAILS TO SHOW A REASONABLE LIKELIHOOD OF PREVAILING ON ANY CHALLENGED CLAIM

To the extent the Board considers the merits of the Petition, the Petition fails to demonstrate that Crane in view of Spain renders obvious any of the challenged claims.

In particular, all of challenged claims of the '784 Patent require “determining a status of [a] wireless device” and “determining from said status a most likely one of said plural streets upon which said wireless device is located.” Ex. 1001 at cls. 1, 2, 10-13, 21, 22. There is no disclosure in Crane that teaches or suggests these limitations. And Petitioner does not even contend that Spain teaches or suggests these limitations as it points to nothing from Spain in connection with them.⁶ *See*

⁶ As Petitioner did not identify any disclosure in Spain relevant to these limitations, Spain is not addressed below. Patent Owner does not concede that Spain has any disclosure relevant to the issues in the Petition.

Pet. at 32-35.

As to “determining a status of [a] wireless device,” Petitioner points to Crane’s purported disclosure of determining a “rate of travel” or “direction of travel.” Pet. at 32 (quoting Ex. 1004 at 4:27-34). Crane, however, discloses determining these based on “a plurality of locations for a single phone over a period of time,” with those locations acquired from a “cellular phone location determining system.” Ex. 1004 at 4:27-34. Then, “[u]sing each position of the cellular phone relative to the previous (in time) position,” a rate or direction of travel can be determined. *Id.* Thus, Crane describes acquiring and using measurements of the position of a mobile device, as provided by a “location determining system,” to potentially determine a rate or direction of travel for a device.

This is fundamentally different from the invention of the ’784 Patent. The purpose of the ’784 Patent is to use ancillary information that is independent of positional measurements—which may potentially have errors—to correct errors in such measurements as they are entered into a calibration database. Ex. 1001 at 3:23-38. The ’784 Patent specifically recognizes that “[a]ny device used to retrieve ground truth data,” such as a “GPS receiver,” “may produce some degree of signal degradation or drop-out ... for example, due to poor satellite visibility or high dilution of precision (DOP).” *Id.* at 1:28-37. For this reason, relying on positional measurements for a device to determine its status suffers from the same problem that

the '784 Patent is directed to addressing. Such positional measurements are prone to errors like “signal degradation or drop-out” and, as a result of these errors, “the calibration database will contain significant errors which will in turn be reflected by poor location estimates.” *Id.*

Even to the extent Crane teaches determining a rate or direction of travel for a mobile device, it does so using positional measurements for the device which are prone to the errors that the '784 Patent is directed to overcoming. The system of Crane cannot use the status of a mobile device in connection with correcting positional errors in a calibration database where its purported determination of a status is subject to those same errors because it is based on positional measurements. Petitioner points to no disclosure in Crane of determining a status of a mobile device that is independent of prior positional measurements of that device. For example, Crane has no teaching of using a device's sensors, such as an accelerometer or gyroscope, to determine its status independently of positional measurements. Thus, the disclosure of Crane that Petitioner relies upon fails to teach “determining a status of said wireless device.”

For “determining from said status [of a wireless device] a most likely one of said plural streets upon which said wireless device is located,” Petitioner points to Crane's disclosure that, if positional measurements for a mobile device are “within a certain threshold distance of the position of a road,” the mobile device “can be

assumed to be in a vehicle traveling along the road” and that “a rate of travel can be used as a factor when determining whether the cellular phone is located in a vehicle travelling along the road.” Pet. at 33-35 (citing Ex. 1004 at 3:57-4:47). As an initial matter, this argument fails for the same reason explained above—Petitioner has failed to show that Crane discloses “determining a status of said wireless device,” and thus cannot show that Crane discloses this additional limitation which relies on that “status.”

Even if Crane is found to disclose “determining a status of said wireless device,” Petitioner does not demonstrate how Crane teaches using a status to determine a “*most likely*” street—out of a plurality of streets—that the wireless device is located upon. At best, Petitioner shows that the system of Crane uses a status as part of determining whether the device is on a street at all. *See, e.g.*, Ex. 1004 at 4:34-37 (“If the rate of travel is greater than a threshold, e.g., 5 miles per hour, a relatively high probability can be assigned that the cellular phone is located in a vehicle traveling *along a road* in the geographic area.”) (emphasis added). This does not amount to determining a “most likely” street. Determining whether a device is on a street is different from determining which particular street the device is most likely on.

Petitioner largely ignores the “most likely one of said plural streets” aspect of this claim limitation. Petitioner identifies nothing in Crane that assesses which street,

out of a plurality of them, a device is most likely located on based on its status. Petitioner's only attempt to address the "most likely" aspect of the claim limitation is that Crane's disclosure that "[i]f the distances 270 are sufficiently small, the cellular phone can be assumed to be in a vehicle traveling along the actual road" refers to a "most likely" road. Pet. at 34 (citing Ex. 1004 at 4:20-22). This is not a determination of the "most likely" street on which the device is located—it is merely a disclosure of assuming that a device is in a vehicle on road. Moreover, even if this could be considered a disclosure of a "most likely" street upon which the device is located, it is based on positional measurements and not the status of the device as required by the claim. Crane explicitly states that this determination is made based on "distances" which are "compute[d] ... between each of the locations 130 of the phone and the straight dashed lines 266 which represent the roads." Ex. 1004 at 4:17-20. Thus, if anything, this determination is made based on positional measurements of the phone and road, not a status of the device.

For these reasons, even Petitioner's arguments on the merits fail to demonstrate a reasonable likelihood of prevailing.

VIII. CONCLUSION

Petitioner fails to show that institution is warranted. As explained above, institution would require an inefficient use of the Board's resources. A district court has already ruled that the '784 Patent claims are invalid as indefinite, and the Petition

falls far short of presenting a “compelling unpatentability challenge” that would warrant proceeding despite that ruling. And Patent Owner has not appealed the district court’s ruling nor it could do so at this point.

Even if the Board reaches the merits under the lower “reasonable likelihood” standard, denial is still warranted. Petitioner’s sole ground fails to demonstrate that the asserted prior art teaches every limitation of the challenged claims. For the foregoing reasons, Patent Owner respectfully requests that the Board deny institution.

Dated: November 22, 2023

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

The undersigned certifies that this brief complies with the type-volume limitations of 37 CFR § 42.24(a)(1)(i). This brief contains 6,620 words as calculated by the “Word Count” feature of Microsoft Word, the word processing program used to create it. The undersigned further certifies that this brief complies with the typeface requirements of 37 CFR § 42.6(a)(2)(ii) and typestyle requirements of 37 CFR § 42.6(a)(2)(iii). This brief has been prepared in a proportionally spaced typeface using Microsoft Word in Times New Roman 14 point font.

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